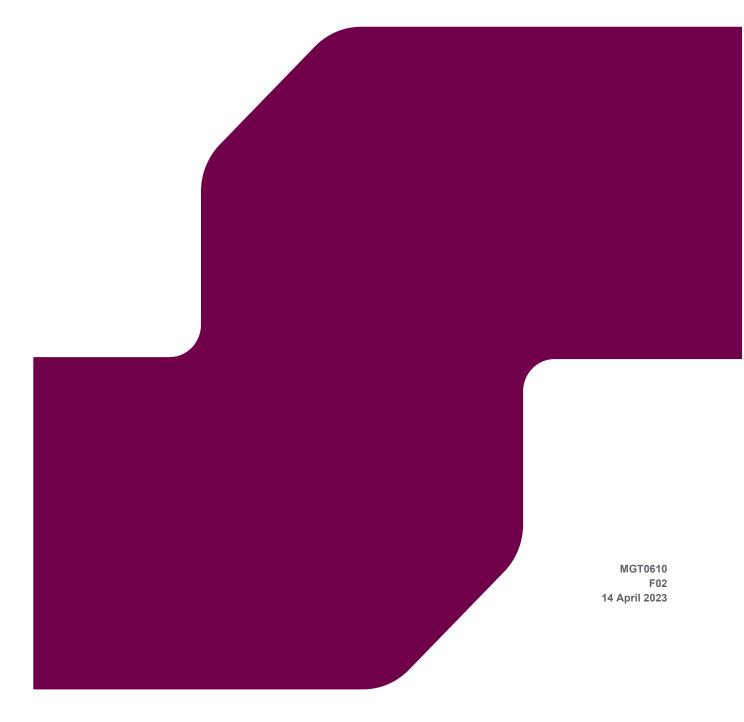


LIVING IN CARLINGFORD – VISITING CARLINGFORD RRDF PROJECT

Report to inform Screening for Appropriate Assessment



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1 INTRODUCTION

1.1 Scope of Report

RPS was commissioned by Louth County Council to produce this report to inform the competent authority's screening for Appropriate Assessment (AA) as for proposed Living in Carlingford – Visiting Carlingford RRDF Project. This project aims to improve the physical and spatial quality of the streets and spaces in the town centre area in Carlingford, Co. Louth through enhancements to the public realm area and streetscape within the town (hereafter 'the proposed development').

This report is an examination of whether, in view of best scientific knowledge and applying the precautionary principle, the proposed development, either individually or in combination with other plans or projects, is likely to have a significant effect on any European site(s). The assessment was carried out in accordance with the legislative context outlined in Section 1.2.

1.2 Legislative Context

1.2.1 European Sites

With the introduction of the Habitats Directive (Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora) came the obligation to establish the Natura 2000 network, comprising a network of areas of highest biodiversity importance for rare and threatened habitats and species across the EU.

The Natura 2000 network of sites comprises Special Areas of Conservation (SACs, including candidate SACs (cSACs)) designated under legislation transposing the obligations under Directive 92/43/EEC; and Special Protection Areas (SPAs, including proposed SPAs (pSPAs)) classified under the Birds Directive (Directive 2009/147/EC on the conservation of wild birds). SACs and SPAs make up the pan-European network of Natura 2000 sites, here referred to as European sites.

In this report, cSACs and SACs are referred to as SACs throughout the appraisal, and there is no distinction made between candidate sites and designated sites as they have the same level of protection as a matter of domestic law and, therefore, the appropriate assessment procedure does not treat them differently. For the purposes of an appropriate assessment, they are one and the same.

SACs are designated for the conservation of Annex I habitats (including priority types which are in danger of disappearance) and Annex II species (other than birds). SPAs are designated for the conservation of Annex I birds and other regularly occurring migratory birds and their habitats. The annexed habitats and species for which each site is designated correspond to the Qualifying Interests (QIs) of the sites in the case of SACs, and Special Conservation Interests (SCIs) of the sites in the case of SPAs.

Each European site has assigned Conservations Objectives (CO) and a list of QIs or SCIs. The CO concept appears in the eighth recital of Directive 92/43/EEC which reads: 'whereas it is appropriate, in each area designated, to implement the necessary measures having regard to the conservation objectives pursued'. Article 1 then explains that 'conservation means a series of measures required to maintain or restore the natural habitats and the populations of species of wild fauna and flora at a favourable status'.

Within Northern Ireland, the Department of Agriculture, Environment and Rural Affairs¹ publish COs for European sites on their website. Within the Republic of Ireland, the National Parks and Wildlife Service (NPWS) publish COs for European sites on their website. NPWS advise in the general introductory notes of their site-specific Conservation Objective (SSCO) series publications, that an appropriate assessment based on their '*published conservation objectives will remain valid even if the conservation objective targets are subsequently updated, providing they were the most recent objectives available when the assessment was carried out*'. NPWS advise that to assist in that regard, it is essential that the date and version are included when objectives are cited.

¹ Link: <u>https://www.daera-ni.gov.uk/landing-pages/protected-areas</u>

1.2.2 Appropriate Assessment

1.2.2.1 European Context

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to have a significant effect on or to adversely affect the integrity of European sites (Annex 1.1). Article 6(3) establishes the requirement for Appropriate Assessment (AA):

"Any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site's conservation objectives. In 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."

Article 6(4) states:

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

1.2.2.2 Northern Ireland Context

It is recognised that following the United Kingdom's departure from the European Union, SACs and SPAs in the UK are no longer considered "Natura 2000 sites" for the purpose of an assessment pursuant to Article 6(3) of the Habitats Directive and are instead part of the UK national site network. However, pursuant to the UK's Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, those sites still retain the same protection under UK law as they did prior to the UK's exit from the EU.

In these circumstances, and consistent with Ireland's obligations as a signatory to the Bern Convention on the Conservation of European Wildlife and Natural Habitats, to which the Birds and Habitats Directives give effect, and in order to ensure the highest level of protection for the species and habitats protected by those Directives, the following assessment includes an assessment of the UK sites formerly forming part of the Natura 2000 network of sites protected under those Directives.

This will enable the competent authorities to determine whether there is a likely significant effect on of those UK sites and the UK national site network.

1.3 Stages of Appropriate Assessment

The Department of the Environment, Heritage and Local Government Guidelines (DoEHLG, 2009) reflects the European Commission's methodological guidance (EC, 2021) promoting a four-stage process to complete the AA and outlines the issues and tests at each stage. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

The four stages are summarised diagrammatically in Figure 1-1 below, and an outline of the steps and procedures involved in completing each stage follows.

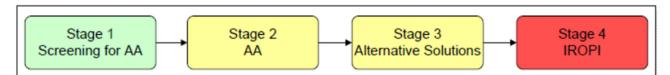


Figure 1-1: Four stages of Appropriate Assessment (from DoEHLG (2009))

Stage 1: Screening / Test of Significance

This process identifies whether the proposed development is directly connected to or necessary for the management of a European site(s) and identifies whether the development is likely to have significant impacts upon a European site(s) either alone or in combination with other projects or plans. The output from this stage is a determination for each European site(s) of not significant, significant, potentially significant, or uncertain effects. The latter three determinations will cause that site to be brought forward to Stage 2.

Stage 2: Appropriate Assessment

This stage considers the impact of the proposed development on the integrity of a European site(s), either alone or in combination with other projects or plans, with respect to: (i) the site's conservation objectives; and (ii) the site's structure, function and its overall integrity. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts is undertaken.

The output from this stage is a Natura Impact Statement (NIS). This document must include sufficient information for the competent authority to carry out the appropriate assessment. If the assessment is negative, i.e. adverse effects on the integrity of a site cannot be excluded, then the process must consider alternatives (Stage 3) or proceed to Stage 4.

Stage 3: Assessment of Alternatives

This process examines alternative ways of achieving the objectives of the project that avoid adverse impacts on the integrity of the European site. This assessment may be carried out concurrently with Stage 2 in order to find the most appropriate solution. If no alternatives exist or all alternatives would result in negative impacts to the integrity of the European sites then the process either moves to Stage 4 or the project is abandoned.

Stage 4: Assessment where Adverse Impacts Remain

This stage includes the identification of compensatory measures where, in the context of Imperative Reasons of Overriding Public Interest (IROPI), it is deemed that the project or plan should proceed.

2 THE PROPOSED DEVELOPMENT

2.1 Site Location

Carlingford is a coastal settlement located approx. 28km north of Dundalk, 6km from Omeath and 10km from the border with Northern Ireland. It is a medieval town renowned for its rich and varied natural and built heritage. Much of Carlingford's charm derives from its geographical setting at the foot of Cooley Mountains along a narrow ledge of land where the mountain slopes meet Carlingford Lough. The proposed development will be carried out within the existing footprint of the Carlingford settlement boundary. The proposed development works will comprise two separate areas, namely that of 1. Town Centre Area and 2. Car Park and Tennis Court Area as in the site location map in Figure 2-1 below.

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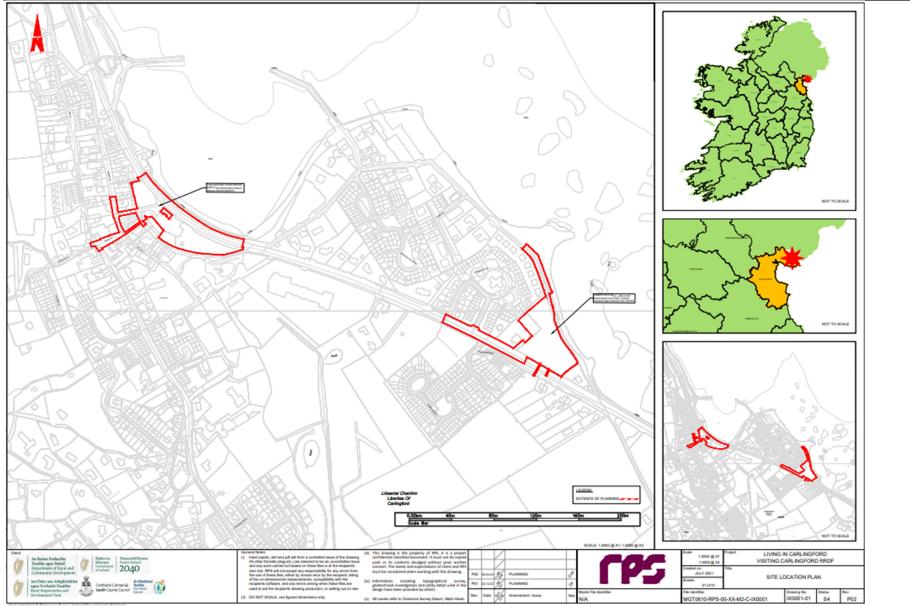


Figure 2-1: Site Location

2.1.1 Town Centre Area

The Town Centre Area as seen in **Figure 2-2** is within the Carlingford Settlement Boundary as set out in the Louth County Development Plan 2021-2027 (hereafter referred to as LCDP). The area is within Land Category Use: B1 Town or Village Centre (LCDP). The site currently contains a tennis court, car park, playground, green open space and the laneways/roads within commercial areas.

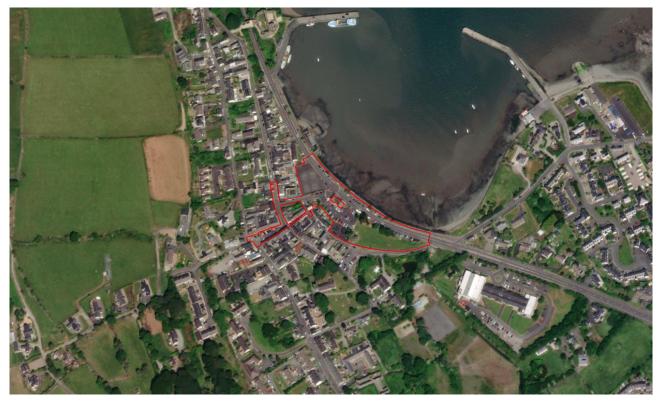


Figure 2-2: Extent of Proposed Development - Town Centre Area shown bound in Red

2.1.2 Car Park and Tennis Court Area

The Car Park and Tennis Court Area as seen in **Figure 2-3** is a green field site along the R176 Greenore Road, approx. 550m to the south east of the Town Centre Area. This site is also within the Carlingford Settlement Boundary as set out in the LCDP. Currently this site is dominated with improved grassland and used as a grazing area. The majority of the area is within Land Category Use: J1 Tourism and Leisure (LCDP). The area in the vicinity of the fire station (north east and south west) is within Land Category Use: G1 Community Facilities (LCDP).



Figure 2-3: Extent of Proposed Development - Car Park and Tennis Court Area shown bound in Red

2.2 Description of the Proposed Development

The proposed development subject of this EIA Screening Report is split between the two red line boundaries, namely that of the Town Centre Area and the Car Park and Tennis Court Area. The urban realm works in the Town Centre Area will result in the loss of some existing public car parking. This loss of car parking spaces will give rise to the need for new public car parking, mainly to be provided at the Car Park and Tennis Court Area. For this reason, it is considered that the two areas/elements are part of the same project and that the combined effects of both areas/elements on the environment should be assessed.

2.2.1 Town Centre Area

The proposed development works are within an area of approx. 1.4 ha and will comprise the following works:

- Traders/Catering Facilities;
- Upgrade of footpath materials and widths to give greater comfort to pedestrian traffic;
- Upgrade of traffic and pedestrian management within the town to give greater emphasis to pedestrians and create a clear hierarchy that puts pedestrians before vehicular traffic within the town centre This will be achieved by reducing road carriageway widths, widening footways, creating shared surfaces and inclusion of tactile paving at crossing points;
- Traffic calming ramps and pedestrian crossings;
- Demolition of existing toilet block and construction of a new one;
- Resurfacing of existing pavements;
- New railings, bollards to discourage illegal parking;
- Bicycle parking;
- Street furniture including bins and seats;
- New trees and vegetation;

- New signage and an evaluation of existing signage with an aim to remove unnecessary signage or relocate signage;
- New/replacement of functional street lighting. New feature lighting in the form of strip lighting to be introduced to some pedestrian areas and tall feature lights will be used in a functional manner at the civic and park areas. There are no proposals to light historic buildings in order to reduce negative impact on bats;
- Public lighting and functional lighting will include, where necessary, shielding to avoid unnecessary light spill that may have a negative effect on the ecology within the area;
- Removal of some existing car parking and provision of 63 car parking spaces, of which a minimum of 5% will be accessible parking bays i.e. a reduction (by 57 no. spaces) in car parking within the town centre area; and
- Removal of existing tennis courts and associated walls;
- New utility services/upgrading of existing services (if required), including watermains, foul, storm and water drainage, ESB services, WiFi and Broadband and also the undergrounding of existing overhead cables where possible.

The site layout of the proposed development - Town Centre Area is illustrated in Figure 2-4.



Figure 2-4: Proposed Layout Town Centre Area

2.2.2 Car Park and Tennis Court Area

The public realm improvements within the Town Centre Area of Carlingford as set out above will result in a reduction of car parking spaces and the change of use of an existing tarmac tennis court area to become a new public realm focal point. To mitigate the potential negative impacts of these changes, LCC are proposing to construct a new car park facility. The proposed car park and associated works are within an area of approx. 1.3ha located 550m south east of the Town Centre Area and will include;

- 148 no. car parking spaces, made up of; 8 no. disabled parking bays, 10 no. potential electric car charging parking bays, 9 no. parent and child parking bays and 121 no. standard parking bays, parking bays to be constructed of permeable paving block setts;
- 2 no. new porous asphalt tennis courts, complete with lighting and fencing (approx. 5m high). Tennis court drainage to consist of filter drain system connecting to closed pipe network;
- New gully and pipe drainage network tying into the existing network on Ghan Road;
- New ESB substation, comprising of an above ground steel cabinet of dimensions approx. 2.6m x 2.2m x 2.0m;
- Ducting for communications and electrical services requirements;
- Public lighting where necessary, shielding to avoid unnecessary light spill that may have a negative effect on the ecology within the area;
- Pedestrian network including concrete footpaths connecting to the existing footpath network on the Ghan Road. The Ghan Road is considered to be an appropriate connection point due to the presence of existing footpath network along this route connecting to the town centre. This route is also less trafficked by vehicles and more scenic with tourist attractions in the form of viewing points of Carlingford Lough, the Underground Leprechaun and Fairy Cavern and the Folklore Park. A secondary linkage will also be provided from the car park to the town centre along the R176. A new section of footpath will be constructed to the north of the car park entrance that will link into an existing footpath. A controlled pedestrian crossing will be provided to allow pedestrians continue their journey to the town centre by linking into the footpath network along the northbound carriage way of the R176 and R173;
- Internal asphalt road network with road markings;
- Bus parking/camper van set down bays; and
- Landscaping.

The site layout of the proposed development – Car Park and Tennis Court Area is illustrated in Figure 2-5.





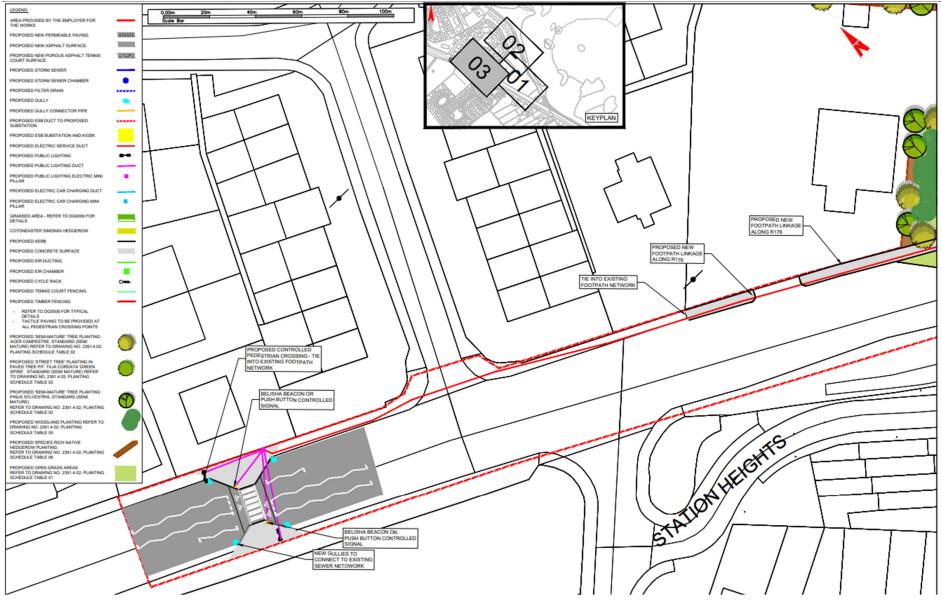


Figure 2-5: Proposed Layout Car Park and Tennis Court Area

2.3 Key Themes and Urban Design Approach

Spaces for Users - The design of the proposed urban realm enhancements will adopt best practice and promote a high quality and inclusive environment to create an attractive, open, and user-friendly environment for the streets.

History - The proposed urban design proposals will be informed by and take account of the Medieval character of the narrow streets and the built environment of Carlingford.

Materials - Natural stone paving will be employed as an appropriate and robust material throughout the scheme to relate to the overall visual quality and aesthetics of the improved streetscape and character of Carlingford.

Views - Important views to the historical landmark structures in Carlingford will be maintained and improved where possible through removal of clutter and appropriate tree planting whilst also ensuring no detrimental impact on any existing heritage features.

Signage - The use of wayfinding signage and plaques inset to paving will be used to create a heritage trail.

Soft Landscaping - Elements will comprise tree planting, raised planters and grass selected to reflect the coastal location and the local environment. The design will endeavour to keep the same percentage green space as the existing scenario. The works will result in a net increase in green space from that provided in the existing scenario.

2.4 Construction Phase

2.4.1 Proposed Construction Works

All construction activities will be managed within the two redline boundaries of the proposed development site.

As described above, there will be temporary offices and storage containers located within the site for the construction duration. All access and haulage of materials will take place via the existing public road network.

The key construction works required are as follows:

- Site clearance and preparation of the site, including removal of topsoil, vegetation removal and utilities diversions. The removal of hedges, trees and other vegetation will be undertaken outside the bird nesting season (March 1st to August 31st);
- Provision of utilities and services, which will require excavations and construction of below ground services. These include the following;
 - Foul water: Within the Town Centre Area no alterations to the existing foul sewer network are
 proposed. Where possible the existing infrastructure will be protected in place and if required minor
 alterations to sewer locations will be carried out to facilitate the works. Any leaks detected during
 the construction will be rectified. At the proposed Car Park and Tennis Court Area, no foul sewer is
 proposed.
 - Surface water: Existing surface water network is gully and appears to outfall directly to the sea. The proposed surface water drainage will aim to utilise the existing surface water sewer system and improve it through the inclusion of SuDS and petrol interceptors.
 - Signage: The use of wayfinding signage and plaques inset to paving will be used to create a heritage trail which will lead visitors to the existing heritage sites and attractions in Carlingford.
 - Landscaping: The soft landscaping elements will comprise tree planting, raised planters and grass selected to reflect the coastal location and local environment. It is proposed to use a mix of moveable tree planter boxes and fixed tree planting in purpose-built tree pits strategically located throughout the town.

2.4.2 Construction Traffic Management Measures

There will be works to public roads (namely that of R173, R176 Greenore Road, Market Street and Newry Street) as part of the proposed development as follows:

- Town Centre Area
 - Traffic calming ramps and pedestrian crossings
- Car Park and Tennis Court Area
 - Pedestrian network including concrete footpaths
 - Internal asphalt road network with road markings
 - Bus parking/set down bays

There will be partial road closures to facilitate the works. Appropriate traffic control measures will be established to provide adequate separation and protection of work areas from live traffic. There will be a requirement to operate traffic management measures which will be communicated to affected parties in advance.

2.4.3 Construction Compound

The area of the current tennis courts is identified for a construction compound. Once works commence on the current tennis courts this compound will move to one of the car parks. Prior to commencement of works the compound will be set up and traffic management measures will be put in place.

2.4.4 Timing of the Works and Hours of Work

It is estimated that the proposed work will take approx. 12 months to complete on site. Construction activities will be undertaken during daylight hours. It is not anticipated that construction works will be carried out on Sundays, or Bank Holidays or that any construction works will be carried out in hours of darkness. Any works on public roads outside normal working hours will be subject to consultation with LCC and An Garda Síochána. Deviation from these times will only be allowed in exceptional circumstances where prior written approval has been received from the local authority. It is proposed that standard construction working hours will apply as follows:

- Monday to Friday: 08:00 to 19:00
- Saturdays: 08:00 to 14:00

2.5 Operational / Maintenance Works

Bin collection will be undertaken by LCC at regular intervals where light vehicles and council personal will access the bin locations as is the case currently. Water will be required for landscaping maintenance and the Traders/Catering Facilities/Kiosk and the water feature. Seasonal maintenance works will be undertaken at regular intervals of the landscaping elements. Maintenance of the playground, car park and landscaping, tennis courts will also be required.

3 METHODOLOGY

3.1 Appropriate Assessment Guidance

EU and national guidance exist in relation to Member States' fulfilling their requirements under the EU Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. The methodology followed in relation to this AA has had regard to the following guidance:

- CIEEM (2018) *Guidelines for Ecological Impact Assessment in the UK and Ireland*. Chartered Institute of Ecology and Environmental Management;
- DoEHLG¹ (2009, rev. 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government;
- EC (2000) *Communication from the Commission on the Precautionary Principle*. Office for Official Publications of the European Communities, Luxembourg;
- EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Brussels;
- EC (2006) Nature and biodiversity cases: Ruling of the European Court of Justice;
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission;
- EC (2013) *Interpretation manual of European Union Habitats EUR28*. European Commission, DG Environment, Nature ENV B.3.
- EC (2014) Article 6 of the Habitats Directive: Rulings of the European Court of Justice;
- EC. (2018) Commission notice "*Managing Natura 2000 sites, The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*". Brussels, 21.11.2018, C (2018) 7621 final. European Communities, Luxembourg.
- EC (2021a) (Amended) 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, Office for Official Publications of the European Communities, Luxembourg. European Commission;
- EC (2021b) (Amended). Commission notice "Guidance document on the strict protection of animal species of Community interest under the Habitats Directive". Brussels, 21.10.2021, C (2021) 7301 final. European Commission; and
- OPR (2021) Practice Note PN01: Appropriate Assessment Screening for Development Management. Office of the Planning Regulator, Dublin 7, Ireland.

There have been significant changes to AA practice since both the EC (2001, 2021) and the DoEHLG (2009) guidance, arising from practice and rulings in UK, European and Irish courts. These changes have been addressed in the preparation of this report.

3.2 Screening Process

The Screening for Appropriate Assessment will incorporate the following steps:

- I. Determining whether a project or plan is directly connected with or necessary to the conservation management of any European sites;
- II. Describing the project or plan;
- III. Identifying the European sites potentially affected by the project or plan;
- IV. Identifying and describing any potential effects of the project or plan on European sites, alone, incombination and cumulatively with other plans/projects; and
- V. Assessing the likelihood of significant effects on European sites.

If the effects are deemed to be likely significant, potentially significant, or uncertain, or if the screening process becomes overly complicated, then the process must proceed to Stage 2.

3.3 Desk Study

A desk study was completed to assess the potential for all Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of European sites to occur, given their ecological requirements identified by Balmer *et al.* (2013) for SCIs, and the National Parks and Wildlife Service (NPWS) for QIs (NPWS, 2019a,b,c).

SCI Birds and mobile QI species can travel many kilometres from their core areas, and desktop surveys assessed the potential presence of such species beyond the European sites for which they are QIs/SCIs. Desktop studies had particular regard for the following sources:

- Environmental Protection Agency (EPA) online interactive mapping tools (<u>https://gis.epa.ie/EPAMaps</u>) and (<u>https://www.catchments.ie/maps/</u>) for water quality data including surface and ground water quality status, and river catchment boundaries;
- Tabulated lists of SCIs and QIs for all European sites in Northern Ireland and in the Republic of Ireland;
- Information on ranges of mobile QI populations in Volume 1 of NPWS' Status of EU Protected Habitats and Species in Ireland (NPWS, 2019a), and associated digital shapefiles obtained from the NPWS Research Branch;
- Information on ranges of mobile SCIs bird populations from Bird Atlas 2007–11 (Balmer *et al.*, 2013), excluding birds of prey whose ranges were determined with reference to Hardey *et al.* (2013);
- Mapping of European site boundaries and Conservation Objectives for relevant sites in County Louth and beyond, as relevant, available online from the NPWS;
- Mapping of European site boundaries and Conservation Objectives for relevant sites in County Down and beyond, as relevant, available online from the Department of Agriculture, Environment and Rural Affairs;
- Information on wetland sites using BirdWatch Ireland's mapping website for the Irish Wetlands Bird Survey (I-WeBS)²;
- Details of QIs/SCIs of European sites within the National Biodiversity Action Plan 2017-2021 (DoCHG, 2017);
- Any local surveys of flora, fauna, and habitat available using the Heritage Councils mapping website (<u>https://heritagemaps.ie/WebApps/HeritageMaps/index.html</u>);
- Distribution records for QI and SCI species of European sites held online by the National Biodiversity Data Centre (NBDC)³;
- Data including surface and ground water quality status, and river catchment boundaries available from the online database of the Environmental Protection Agency (EPA);
- Information on groundwater aquifers, recharge, and vulnerability available from the online database of Geological Survey Ireland (GSI)⁴;
- National and regional surveys of semi-natural habitats, including grasslands (O'Neill, *et al.*, 2013), saltmarsh (McCorry, *et al.*, 2009); (Brophy, *et al.*, 2019)), and woodland (Perrin *et al.*, 2008);

² (https://bwi.maps.arcgis.com/apps/View/index.html?appid=1043ba01fcb74c78bc75e306eda48d3a) Accessed June 2022

³ Assessing records up to 10 years old (from date of search), for an area of 5 km from the proposed development site. Available online at: <u>https://maps.biodiversityireland.ie/Map</u> Accessed June 2022.

⁴ Available online at <u>https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228</u>. Accessed June 2022.

- Boundaries for catchments with confirmed or potential freshwater pearl mussel (FWPM) *Margaritifera* populations in GIS format available online from the NPWS; and
- Local Biodiversity Action Plan for County Louth 2021 -2026⁵.

3.4 Field Study

In addition to the desktop studies, a field study was carried out on the 17th August 2021 in respect of the proposed development. The survey assessed the potential for all QIs/SCIs of European sites and third schedule⁶ invasive alien species to occur.

The survey included checks of suitable habitats for all highly mobile QI/SCI species potentially occurring. For instance, the amenity grassland area was checked for foraging suitability for wintering light-bellied brent goose *Branta bernicla hrota* which is an SCI for Carlingford Lough SPA, located *c*. 300m northeast of the proposed site. Numerous non-breeding SCI bird species travel many kilometres from their core areas, and surveys also assessed potential presence of roosting or feeding sites of such species. Species surveys had regard for relevant guidance (e.g. NRA, 2009). The potential of any buildings, vegetation, or features within the Zone of Influence (ZoI) of the proposed development to offer nesting or roosting habitat to SCI bird populations, was assessed.

Wintering bird surveys were also carried out in respect of the proposed development. Seven monthly visits were carried out across the winter season, between September 2022 and March 2023, inclusive. A total of 42 survey hours were conducted, with each 6-hour survey divided into three 2-hour blocks. Surveys were carried out by a competent ornithologist and recorded all waterbirds within the proposed car park and tennis court area and a 250m buffer from the redline boundary. The key target species for the purpose of these bird surveys was light-bellied brent goose, given its designation as an SCI of Carlingford Lough SPA.

3.5 Limitations

The receiving environment (i.e. baseline condition) may naturally vary through seasons and between years (NRA, 2008). This limitation is acknowledged and incorporated into the assessment.

The field study was completed during a single site walkover. Although the timing of the survey was deemed suitable (NRA, 2008) for the purposes of Appropriate Assessment, this limitation of a single visit is acknowledged and incorporated into the assessment.

Sources of desk study information are neither exhaustive nor necessarily easily available, and a reasoned effort was made to obtain ecological data in the public domain to inform the description of the receiving environment and its assessment. Additional information, not in the public domain, is likely to exist. This limitation is acknowledged and incorporated into the assessment.

3.6 Identifying Relevant European Sites

The identification of relevant European sites to be included in this report was based on the identification of the Zone of Influence (ZoI) of the proposed development, a source-pathway-receptor model of effects, and the likely significance of any identified effects.

3.6.1 Source-Pathway-Receptor Model

The likely effects of the proposed development on any European site has been assessed using a sourcepathway-receptor model, where:

⁵ Available at <u>https://www.louthcoco.ie/en/services/heritage/publications/endorsed-louth-local-biodiversity-action-plan-2021-2026.pdf</u> Accessed June 2022.

⁶ Invasive species scheduled to the EC (Birds and Natural Habitats) Regulations 2011-2015 ('the Regulations'). Under the Regulations, it is an offence to plant, disperse, allow or cause to disperse, spread or otherwise cause to grow in any place any species scheduled to the Regulations without a licence

- A 'source' is defined as the individual element of the proposed works that has the potential to impact on a European site, its qualifying features and its conservation objectives;
- A 'pathway' is defined as the means or route by which a source can affect the ecological receptor; and
- A 'receptor' is defined as the Special Conservation Interests (SCI) of SPAs or Qualifying Interests (QI) of SACs for which conservation objectives have been set for the European sites being screened.

A source-pathway-receptor model is a standard tool used in environmental assessment. In order for an effect to be likely, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism results in no likelihood for the effect to occur. The source-pathway-receptor model was used to identify European sites, and their QIs/SCIs, with potentially links to the proposed development. These are termed as 'relevant' European sites/QIs/SCIs throughout this report.

3.6.2 Zone of Influence

The proximity of the proposed development to European sites, and more importantly QIs/SCIs of the European sites, is of importance when identifying potentially likely significant effects. A conservative approach has been used, which minimises the risk of overlooking distant or obscure effect pathways, while also avoiding reliance on buffer zones (e.g. 15 km), within which all European sites should be considered. This approach assesses the complete list of all QIs/SCIs of European sites in Ireland (i.e. potential receptors), instead of listing European sites within buffer zones. This follows Irish departmental guidance on AA:

"For projects, the distance could be much less than 15 km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects" (DoEHLG, 2010; p.32, para 1).

Following the guidance set out by the NRA (2009), the proposed development has been evaluated based on an identified ZoI with regard to the potential impact pathways to ecological feature (e.g. mobile and static). The ZoI of the proposed development on mobile species (e.g. birds, mammals, and fish), and static species and habitats (e.g. saltmarshes, woodlands, and flora) is considered differently. Mobile species have 'range' outside of the European site in which they are QI/SCI. The range of mobile QI/SCI species varies considerably, from several metres (e.g. in the case of whorl snails *Vertigo* spp.), to hundreds of kilometres (in the case of migratory wetland birds). Whilst static species and habitats are generally considered to have ZoIs within close proximity of the proposed development, they can be significantly affected at considerable distances from an effect source; for example, where an aquatic QI habitat or plant is located many kilometres downstream from a pollution source.

Hydrological linkages between the proposed development and European site (and their Qis/SCIs) can occur over significant distances; however, any effect will be site specific depending on the receiving water environment and nature of the potential impact. As a precautionary measure, a reasonable worst-case Zol for water pollution from the proposed development site is considered to be the surface water catchment. In this report, the surface water catchment is defined at the scale of Catchment Management Unit (CMU), as adopted in the River Basin Management Plan (RBMP) for Ireland 2018-2021 (DoHPLG, 2018). The zone of influence then extends into the first coastal water body.

Hydrogeological linkages between the proposed development and European site (and their QIs/SCIs) are highly variable based on the characteristics of the groundwater body, methodologies used, and the presence of groundwater dependant habitats and species. As a precautionary measure, a reasonable worst-case ZoI for water pollution from the proposed development site is considered to capture the entirety of each groundwater body the proposed development overlies.

The initial zone of influence is therefore combined to capture 15 km around the proposed development, the Catchment Management Unit (CMU) as a whole, and the relevant groundwater bodies.

3.6.3 Scoping of European Sites

Following the identification of European sites within the initial ZoI, a secondary scoping was carried out before sites were taken forward to the risk assessment stage. Disturbance buffers, hydrological, and hydrogeological linkages extending from the proposed development were assessed to determine if pollution

sources arising from the proposed development, used during the construction and operation of the proposed development, could come into contact with QI/SCI habitats and species.

Where it was deemed that there is potential for one QI or SCI habitat/species from a European site within the ZoI to come into contact with a pollution source, the entire European site is brought into the risk assessment stage.

3.6.4 Risk Assessment

A risk assessment provides a systematic approach to analysing and evaluating the likelihood that a particular event will occur under a given set of circumstances (Park and Lek, 2015). Using the EPA (2014) 'Guidance on Assessing and Costing Environmental Liabilities', a risk classification criterion was utilised and adapted to understand the potential risk of the proposed development on European sites and their QI/SCI habitats and species.

Risk classification ratings are given against the likelihood of the hazard occurring, and the magnitude of the consequence on the receptor. This utilises the Source-Pathway-Receptor model outlined in **Section 3.3.1** The hazards arising from the construction and operation of the proposed development are defined as different sources of potential pollution, these are stated below:

- Surface water run-off Surface water run-off from the proposed development works arising from
 periods of heavy rainfall may contain suspended solids and silt. This includes additional surface water
 run-off during times of flood.
- Groundwater interference Groundwater interference is deemed to involve changes in flow, yield and quality of the groundwater body arising from works which may extend into the water table in certain conditions.
- Disturbance (noise and vibration) Heightened disturbance will occur from the presence of construction/maintenance workers within the general area and also through increased noise and vibration from machinery completing the works.
- **Habitat destruction/ fragmentation** Land take for the construction of, or access to the proposed development, specifically the removal of the amenity grassland area.

Likelihood ratings range from 0 (no likelihood) to 5 (very high likelihood) of interaction between the source of impact and a European site or the relevant QIs/SCIs. Likelihoods are assessed based on the favourable reference range of the QI habitat or species (NPWS, 2019b,c) and distribution of SCIs (Balmer et al., 2013), and potential pathways from source to receptor (see **Section 3.3.1**).

Consequence ratings range from 1 (negligible impact on the receptor) to 5 (severe and irreversible impact on receptor). Consequence ratings will depend on the sensitivity of each receptor to the pollution source, assessed using the specific Conservation Objectives for the habitat or species, where available, and Article 17 habitat and species conservation assessments (NPWS 2019b,c).

These rating are multiplied together to give a risk score to be used at the risk evaluation stage (**Table 3-1**). This allows an evaluation of the likely significant effects arising to QI or SCI receptors as a result of the proposed development (see **Appendix B**)

	Very High (5)	5	10	15	20	25
p	High (4)	4	8	12	16	20
hood	Medium (3)	3	6	9	12	15
ikeli	Low (2)	2	4	6	8	10
	Very Low (1)	1	2	3	4	5
	None (0)	0	0	0	0	0
		Trivial (1)	Minor (2)	Moderate (3)	Major (4)	Massive (5)
	Magnitude of Consequence					

Table 3.1: Risk Matrix (adapted from EPA, 2014)

3.6.5 Likely Significant Effect

The threshold for a Likely Significant Effect (LSE) is treated in the screening exercise as being above a de minimis level⁷. The opinion of the Advocate General in CJEU case C-258/11 outlines:

"the requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill."

In this report, therefore, 'relevant' European sites are those within the potential Zone of Influence (ZoI) of activities associated with the construction and operation of the proposed development, where LSE pathways to European sites were identified through the source-pathway-receptor model.

Using the Risk Matrix model (adapted from EPA, 2014), a LSE on a QI/SCI habitat or species occurs where the risk score reaches an amber or red category, i.e. a score ≥ 8 . Scores within the green category of the matrix, i.e. a score <8, are not deemed to result in any LSEs.

⁷ Sweetman v. An Bord Pleanála (Court of Justice of the EU, case C-285/11). A de minimis effect is a level of risk that is too small to be concerned with when considering ecological requirements of an Annex I habitat or a population of Annex II species present on a European site necessary to ensure their favourable conservation condition. If low level effects on habitats or individuals of species are judged to be in this order of magnitude and that judgment has been made in the absence of reasonable scientific doubt, then those effects are not considered to be likely significant effects.

4 **RECEIVING ENVIRONMENT**

This section details the desktop and field survey results, in order to describe the relevant receiving environment of the proposed development. The relevant receiving environment relates to anything that may be directly or indirectly related to the QIs/SCIs of relevant European sites.

4.1 **Overview of Proposed Development**

The predominant land use within the Zol of the proposed development is civic space, pedestrian areas, planted/grass areas and areas for car parking. The proposed development is located the town centre area in Carlingford, Co. Louth. The river Carlingford_010 is culverted beneath the town from River Lane to its outfall into Carlingford Lough. The river Carlingford_010 also runs culverted adjacent to the southeast of the site past the green/amenity area to its outfall into Carlingford Lough.

4.2 European Sites

European sites identified within the initial ZoI of the proposed development are detailed in **Table 4-1**. These tables include a scoping column to identify relevant European sites to be brought forward for assessment. In total, one SAC and two SPA have been brought forward for further assessment. All relevant European sites identified in this report are illustrated in **Figure 4-1**. European sites displayed are those deemed relevant to the ZOI of the proposed development following an initial scoping stage.

Site (Code), Distance from Proposed Development, and Conservation Objectives Version	Qualifying Interest(s) (*Priority Habitat) and Special Conservation interest(s)	Conservation Objective(s)	Site Scoped in for Further Assessment
Republic of Ireland			
Carlingford Lough SPA (IE004078)	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	To maintain the favourable conservation condition	Yes. Indirect physical connectivity.
Located <i>c</i> . 3 m northeast of proposed development. CO's- Specific Version 1.0 [22/08/13] (NPWS, 2013)	Wetland and Waterbirds [A999]	To maintain the favourable conservation condition	
Carlingford Shore SAC (IE002306)	Annual vegetation of drift lines [1210]	To maintain the favourable conservation condition	Yes . Direct hydrological connectivity via the river Carlingford_010.
Located c. 2 m north of proposed development. CO's- Specific Version 1.0 [15/07/13] (NPWS, 2013)	Perennial vegetation of stony banks [1220]	To maintain the favourable conservation condition	-
Dundalk Bay SAC (IE0000455) Located <i>c.</i> 6.6 km south of	Estuaries [1130]	To maintain the favourable conservation condition	No. European site is separated from proposed development by existing
proposed development. CO's- Specific Version 1.0 [19/07/11] (NPWS, 2011)	Mudflats and sandflats not covered by seawater at low tide [1140]	To maintain the favourable conservation condition	ground and river water bodies.
	Perennial vegetation of stony banks [1220]	To maintain the favourable conservation condition	-
	Salicornia and other annuals colonising mud and sand [1310]	To restore the favourable conservation condition	-
	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]	To maintain the favourable conservation condition	-
	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	To maintain the favourable conservation condition	-
Dundalk Bay SPA (IE0004026) Located <i>c</i> .6.6 km south of	Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]	To maintain the favourable conservation condition	No. European site is separated from proposed development by existing
proposed development. CO's- Specific Version 1.0	Greylag Goose (<i>Anser anser</i>) [A043]	To maintain the favourable conservation condition	Ground and river water bodies. Location of proposed development _not deemed to provide significant
[19/07/11] (NPWS, 2011)	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	To maintain the favourable conservation condition	feeding and/or roosting habitats whereby a disturbance/removal of
	Shelduck (<i>Tadorna tadorna</i>) [A048]	To maintain the favourable conservation condition	The site could cause a likely significant effect on the SPA's SCI _species populations.
	Teal (<i>Anas crecca</i>) [A052]	To maintain the favourable conservation condition	
	Mallard (<i>Anas platyrhynchos</i>) [A053]	To maintain the favourable conservation condition	-
	Pintail (<i>Anas acuta</i>) [A054]	To maintain the favourable conservation condition	-
	Common Scoter (<i>Melanitta nigra</i>) [A065]	To maintain the favourable conservation condition	-
	Red-breasted Merganser (<i>Mergus serrator</i>) [A069]	To maintain the favourable conservation condition	-
	Oystercatcher (<i>Haematopus</i> ostralegus) [A130]	To maintain the favourable conservation condition	-
	Ringed Plover (<i>Charadrius</i> hiaticula) [A137]	To maintain the favourable conservation condition	-
	Golden Plover (<i>Pluvialis</i> apricaria) [A140]	To maintain the favourable conservation condition	-
	Grey Plover (<i>Pluvialis</i> <i>squatarola</i>) [A141]	To maintain the favourable conservation condition	

Table 4.1: Conservation Objectives of Relevant European Sites

Site (Code), Distance from Proposed Development, and Conservation Objectives Version	Qualifying Interest(s) (*Priority Habitat) and Special Conservation interest(s)	Conservation Objective(s)	Site Scoped in for Further Assessment
	Lapwing (<i>Vanellus vanellus</i>) [A142]	To maintain the favourable conservation condition	
	Knot (Calidris canutus) [A143]	To maintain the favourable conservation condition	_
	Dunlin (<i>Calidris alpina</i>) [A149]	To maintain the favourable conservation condition	_
	Black-tailed Godwit (<i>Limosa limosa</i>) [A156]	To maintain the favourable conservation condition	-
	Bar-tailed Godwit (<i>Limosa</i> <i>lapponica</i>) [A157]	To maintain the favourable conservation condition	-
	Curlew (<i>Numenius arquata</i>) [A160]	To maintain the favourable conservation condition	_
	Redshank (<i>Tringa totanus</i>) [A162]	To maintain the favourable conservation condition	_
	Black-headed Gull (Chroicocephalus ridibundus) [A179]	To maintain the favourable conservation condition	_
	Common Gull (<i>Larus canus</i>) [A182]	To maintain the favourable conservation condition	-
	Herring Gull (<i>Larus argentatus</i>) [A184]	To maintain the favourable conservation condition	-
	Wetland and Waterbirds [A999]	To maintain the favourable conservation condition	-
Carlingford Mountain SAC (IE000453)	Northern Atlantic wet heaths with Erica tetralix [4010]	To restore the favourable conservation condition	No. Site is separated from propose development by existing river water bodies. Groundwater body consists of moderately productive bedrock with the general surface water flow "direction is to the eastwards toward the coasts ⁸ .
Located <i>c</i> . 770m west of proposed development. CO's- Specific Version 1.0	European dry heaths [4030]	To restore the favourable conservation condition	
[17/12/21] (NPWS, 2021)	Alpine and Boreal heaths [4060]	To restore the favourable conservation condition	
	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230]	To restore the favourable conservation condition	
	Blanket bogs (* if active bog) [7130]	To restore the favourable conservation condition	-
	Transition mires and quaking bogs [7140]	To maintain the favourable conservation condition	-
	Alkaline fens [7230]	To maintain the favourable conservation condition	_
	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110]	⁹ To maintain the favourable conservation condition	_
	Calcareous rocky slopes with chasmophytic vegetation [8210]	To maintain the favourable conservation condition	-

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⁸ Available online from GSI at <u>https://gsi.geodata.gov.ie/downloads/Groundwater/Reports/GWB/LouthGWB.pdf</u> Accessed June 2022

Site (Code), Distance from Proposed Development, and Conservation Objectives Version	(*Priority Habitat) and Special Conservation interest(s)	Conservation Objective(s)	Site Scoped in for Further Assessment
	Siliceous rocky slopes with chasmophytic vegetation [8220]	To restore the favourable conservation condition	
United Kingdom (Great Britain a	nd Northern Ireland)		
Carlingford Lough SPA (UK9020161) Located c. 2.3km north of proposed development. COs- Version 3, [01/04/15] (DoENI, 2015a)	Common Tern (<i>Sterna hirundo</i>) [A193] (breeding) Sandwich Tern (<i>Sterna</i> <i>sandvicensis</i>) [A191] (breeding) Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	To maintain each feature in favourable condition	Yes. Indirect hydrological connectivity via Carlingford Lough and physical connectivity.
Rostrevor Wood (UK0030268) Located c.5.1km north of proposed development. COs- Version 2, [01/04/15] (DoENI, 2015b)	Old sessile oak woods with Ilex and Blechnum in the British Isles	To maintain (or restore where appropriate) the Old sessile oak woods with llex and Blechnum in the British Isles to favourable condition.	No. European site is separated from proposed development by existing ground and river water bodies.
Eastern Mournes (UK0016615) Located c.13.6km northeast of proposed development.	European dry heaths	To maintain (or restore where appropriate) to favourable condition	No. European site is separated from proposed development by existing ground and river water bodies.
COs- Version 2.1 [11/10/17] (DoENI, 2017)	Northern Atlantic wet heaths with <i>Erica tetralix</i>	To maintain (or restore where appropriate) to favourable condition	-
	Active blanket bogs	To maintain (or restore where appropriate) to favourable condition	-
	Alpine and boreal heaths	To maintain (or restore where appropriate) to favourable condition	-
	Siliceous alpine and boreal grasslands	To maintain (or restore where appropriate) to favourable condition	-
	Siliceous rocky slopes with chasmophytic vegetation	To maintain (or restore where appropriate) to favourable condition	-
	Siliceous scree of the montane to snow levels	To maintain (or restore where appropriate) to favourable condition	
Derryleckagh (UK0016620) Located <i>c</i> .14km northwest of proposed development. COs- Version 2 [01/04/15] (DoENI, 2015c)	Transition mires and quaking bogs Old sessile oak woods with Ilex and Blechnum in the British Isles	To maintain (or restore where appropriate) the Transition mires and quaking bogs and Olo sessile oak woods with Ilex and Blechnum in the British Isles to favourable condition.	No. European site is separated from proposed development by existing ground and river water bodies.

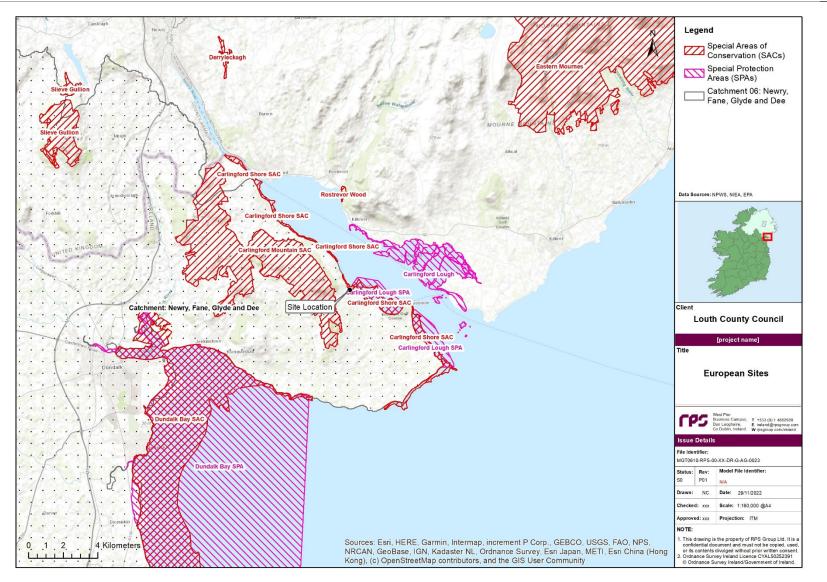


Figure 4-1: European Sites within the vicinity of the proposed development

4.2.1 Hydrological Connectivity

The existing surface water drainage within the area of the proposed development site consists of a gully to pipe system which appears to outfall directly to the sea. The proposed surface water drainage will aim to utilise the existing surface water sewer system and if possible, improve it through the inclusion of SuDS and petrol interceptors. On River Lane the Carlingford_010 river (IE_NB_06C620800) runs down the southern side of the street, where it is culverted down Market Lane from the junction of Back Lane and Dundalk Street, discharging into Carlingford Lough coastal water body (GBNIIE6NB030). The Carlingford_010 river water body also runs culverted through the proposed development at the southeaster end of the amenity grassland area by Old Quay Road. The Carlingford_010 river (IE_NB_06C620800) travels north before it discharges into Carlingford Lough. All ultimately flow into the Mourne Coastal waterbody (GBNIIE6NB020).

Analysis of the EPA online mapper identified that these river water bodies provide direct hydrological connectivity to Carlingford Shore SAC and Carlingford Lough SPA, which are located *c*.2m and *c*.3m respectively downstream of the proposed development.

The WFD River Waterbody Status (2013-2018) (EPA, 2018) for the Carlingford_010 river is 'good' and identified as 'not at risk' of failing to meet its WFD objectives. The river water body then flows into the Carlingford Lough coastal water body where it is given the status 'Moderate' in the WFD Coastal Waterbody Status (2013-2018) (EPA, 2018).

The proposed development is within the Louth (IEGBNI_NB_G_019) groundwater body. This groundwater body is classified as being of 'good' status, for the period 2013-2018 and supports connectivity to Carlingford Shore SAC and Carlingford Lough SPA.

4.3 Features of European Sites

4.3.1 Qualifying Interests

The desk study returned records for five QI mammal species from the preceding 10 years, within 5 km of the proposed development (see Table 4.2). No evidence of QI species was recorded in the field study. There are no habitats offering significant breeding or foraging sites for these, or any other QI species within the footprint of the proposed development.

able 4.2: Qualifying Interest Species Returned from NBDC Data Search
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Species name	Record count	Date of last record	Habitat Preferences ⁹
Mammals			
Bottle-nosed Dolphin <i>Tursiops truncatus</i>	22	22/06/2021	In Irish waters, occurs to the continental shelf, as well as a resident population occurring in the Shannon estuary. The species can occur in much deeper waters.
Common Porpoise Phocoena phocoena	1	30/07/2015	Habitats include but are not necessarily limited to open marine water. In Irish waters the species is less associated with the deeper waters over the continental slope than with the continental shelf.
Common Seal Phoca vitulina	15	31/03/2020	Forages at sea. Haul-out sites in the breeding season will most often be onto shores of islands or onto remote mainland shores. 'Haul-out' sites may be on rocky, shingle or sandy shores and even on grassland if it is within <i>c</i> .300ms of the sea.
Grey Seal Halichoerus grypus	1	03/11/2012	Forages at sea, within the continental shelf boundary. Haul-out sites in the breeding season will most often be onto shores of islands or onto remote mainland shores. In Britain and Ireland breeding sites are above high-water

⁹ Available online at <u>https://species.biodiversityireland.ie/</u> Accessed June 2022.

Species name	Record count	Date of last record	Habitat Preferences ⁹
			mark. Depending on the location the 'haul-out' sites may be on rocky, shingle or sandy shores and even on grassland if it is within c. 300ms of the sea. For breeding the site will be above high-water mark.
European Otter <i>Lutra lutra</i>	13	09/11/2018	Lakes and ponds, watercourses, riparian woodland, estuaries, sea inlets and bays, saltmarshes, swamps.

The proposed development is located c. 27m of Carlingford Shore SAC, which is designated for the following habitats:

- Annual vegetation of drift lines [1210]
- Perennial vegetation of stony banks [1220]

The proposed development is located beside Carlingford Lough and consists of hardstanding areas with amenity grassland to the southeast. The survey carried out in August 2021 concluded that there was no QI habitat located within the footprint of the proposed site.

4.3.2 Special Conservation Interests

The desk study returned records for 36 SCI bird species from the preceding 10 years, within 5 km of the proposed development (see **Table 4.3**).

The field survey recorded the presence of herring gull *Larus argentatus* within the proposed development site. It is likely that Carlingford harbour is suitable for use by a range of SCI species; however, no survey was carried out here as it was deemed to be outside the ZoI of the proposed development.

Brent geese and other water birds are known to forage at inland feeding sites, such as amenity grassland areas, during the winter season. Having exhausted the supplies of *Zostera* (eelgrass) beds available to them on mudflats along the coast¹⁰, brent geese are known to forage inland on areas of amenity grassland in large numbers, which can serve as ex-situ foraging sites for SCI populations (Benson, 2009). The suitability of amenity grassland areas for brent geese gives rise to the need to examine the presence of the small amenity grassland area (*c*. 2,770m²) to the southeast of the site. Given the existing level of disturbance a town centre community space is subjected to on a daily basis and the amount of alternative suitable foraging sites in the locality in closer proximity to the SPA, which would not be subjected to such levels of disturbance, this area is not considered to be a significant foraging site for SCI species. The dates, timings, weather conditions and results for each bird survey are outlined in **Table 4.4** below.

Species name	Record count	Date of last record	Habitat Preferences ¹¹
Arctic Tern <i>Sterna paradisaea</i>	7	19/05/2018	Summer visitor from March to September to all Irish coasts. Mainly a coastal breeding bird, but in Ireland the species also breeds inland on the freshwater lakes of Lough Corrib (Co. Galway) and Lough Conn (Co. Mayo). More colonies are found on the west coast
Bar-tailed Godwit Limosa lapponica	17	02/02/2019	Winter visitor to coastal estuaries from October to April from Russia and Scandinavia. Wintering distribution entirely coastal. They are largely confined to estuaries, with largest numbers recorded on sandy estuaries. Small numbers recorded using non-estuarine coastline.
Black-headed Gull Larus ridibundus	41	07/05/2021	Resident along all Irish coasts, wintering inland also. Breading nests on the ground in wetland areas, i.e. bogs, marshes, man-made lakes. Widespread across agricultural fields, and urban areas.
Black-tailed Godwit <i>Limosa limosa</i>	10	21/04/2021	Winter visitor to both inland and coastal estuarine habitats. Rare Irish breeding sites in lowland wet grassland and marshes

¹⁰ Available at <u>https://birdwatchireland.ie/app/uploads/2019/03/Species-Focus-Brent-Goose.pdf</u> Accessed July 2022

¹¹ Available online at <u>https://birdwatchireland.ie/</u> Accessed June 2022.

Species name	Record count	Date of last record	Habitat Preferences ¹¹
Brent Goose Branta bernicla	39	21/04/2021	Winter migrant from high-Arctic Canada. Most occur in Ireland between October and April. This population winters almost entirely in Ireland, with small numbers in parts of Britain and France. Mostly found on coastal estuaries during the autumn and early winter, and also on grasslands from mid-winter, until departure for the breeding grounds begins in late April.
Common Coot Fulica atra	17	02/05/2021	Resident at ponds and lakes throughout Ireland. Wintering in lakes, coastal estuaries and river systems
Common Eider Somateria mollissima	4	23/05/2021	Resident along rocky coasts in the north and north-west of Ireland. Eider nest colonially on offshore islets, along low-lying coast, usually where the threat of mammalian predation is minimal. Eider seldom occur far from the sea throughout the year. They breed around the coast of Scotland and northern England and along the north and northwest coasts of Ireland. Up to 100 pairs have been estimated in Ireland. Wintering populations occur on shallow, inshore coastal waters, near estuary mouths mostly along the northwest and northeast coastlines.
Common Greenshank Tringa nebularia	16	27/01/2021	Winter visitor to estuaries from September to April.
Common Guillemot <i>Uria aalge</i> Common Kingfisher	10	02/01/2018	Resident to Irish coastal waters. Comes ashore to nest on cliff edges from May onwards Resident on Irish streams, rivers and canals. Wintering in lakes and coasts during
Alcedo atthis		2110 112021	extended poor weather.
Common Redshank Tringa totanus	50	23/06/2021	Resident and visitor populations. A common wader of wetlands throughout the country, though mainly coastal estuaries in winter. Nests in grassy tussock, in wet, marshy areas and occasionally heather. Breeds mainly in midlands.
Common Shelduck Tadorna tadorna	40	25/05/2021	Resident and winter migrant to sheltered estuaries or tidal mudflats. Breeds in open areas along seashores, larger lakes and rivers. Nest in holes in banks, trees, occasionally straw stacks or buildings. Increasing displacement to inland sites
Dunlin Calidris alpina	20	13/02/2021	Summer and winter visitor to coastal areas, tidal mudflats and estuaries are preferred. Breeding in machair habitats.
Eurasian Curlew Numenius arquata	76	23/06/2021	Winter visitor to Irish wetlands. Breeding throughout Ireland in floodplains, bog lands, meadows, rough pasture and heather
Eurasian Oystercatche Haematopus ostralegu		25/05/2021	Resident & winter visitor to all coastal habitats, and particularly favour open sandy coasts. Nests principally on shingle beaches, dunes, salt marshes and rocky shores around the coast.
Eurasian Teal Anas crecca	16	14/03/2021	Resident & winter migrant. Wetland preferences in covered freshwater lakes, pools and small upland streams away from the coast. Wintering in coastal lagoons and estuaries and inland marshes, lakes, ponds and turloughs
Eurasian Wigeon Anas penelope	25	21/04/2021	Fairly widespread and common winter visitor. Can be found in flocks up to and over 1000 birds on large wetlands and waterbodies. Non-breeding in Ireland
European Golden Plover <i>Pluvialis apricaria</i>	13	09/01/2021	Widespread distribution during wintering in coastal and inland habitats. Summer populations restricted to uplands in NW Ireland with heather moors, blanket bogs, and acidic grasslands
European Shag Phalacrocorax aristotelis	16	07/03/2021	Breeds all around the coast of Ireland wherever suitable cliffs exist. Nests on ledges, in crevasses, in caves or under boulders. A colonial nester in loose colonies with prolonged breeding season. More plentiful on the west and south coasts but with notable concentrations in Co. Dublin
Great Crested Grebe Podiceps cristatus	19	23/04/2021	Winter distribution is widespread with greatest concentration in the north midlands and northeast and birds from the continent join the resident population. Outside the breeding season are often solitary with some birds moving to the coast through the winter. Breed on large, shallow eutrophic loughs, and along canals and slow flowing rivers – wetlands with emergent vegetation bordered by open water are generally selected
Great Northern Diver Gavia immer	14	13/02/2021	Great Northern Divers occur along the Irish coastline between September and April and are usually observed as single birds or small groups. They are the most numerous of the divers occurring in Ireland and are particularly abundant off the south, west and northwest coasts over the winter. Do not breed in Ireland
Grey Heron Ardea cinerea	59	25/05/2021	Common resident at wetlands, estuaries and along rivers throughout Ireland.

Species name	Record count	Date of last record	Habitat Preferences ¹¹
Greylag Goose* Anser anser	2	19/04/2021	Winter migrant between November & April wintering mostly at coastal sites near estuaries and grasslands for feeding. Feral birds are present year-round. Breeds by lakes and reservoirs, with the nest site often close to water and hidden in reeds or other waterside vegetation.
Hen Harrier <i>Circus cyaneus</i>	5	11/10/2019	Winter visitor to low-lying countryside along the coast. Breeding in upland areas and bogs confined to heather moorland and young forestry plantations.
Herring Gull Larus argentatus	32	23/06/2021	Resident along all Irish coasts, breeding inland also. Widespread distribution.
Lesser Black-backed Gull <i>Larus fuscus</i>	9	13/02/2021	Summer populations are distributed across the Irish coastline including offshore islands, islands in inland lakes, sand dunes and coastal cliffs. Winter visitors to more inland lakes.
Little Grebe Tachybaptus ruficollis	27	25/04/2021	Resident on vegetated ponds and lakes throughout Ireland. Wintering habitat extends to include ephemeral wetlands and are often encountered on sheltered coasts, estuaries and coastal lakes and lagoons
Mallard Anas platyrhynchos	48	23/06/2021	Resident across all wetland habitats in Ireland.
Northern Gannet Morus bassanus	7	25/04/2021	Resident along all Irish coasts, wintering at sea, but can be seen in Irish waters throughout the year. Breeds in colonies on islands off the coast. There main Gannet colonies are location off the coast of Wexford. Cork and Kerry. A small colony is also found on Irelands Eye, Co. Dublin.
Northern Lapwing Vanellus vanellus	37	05/02/2021	Irish resident and summer visitor across wetlands, pasture and rough land adjacent to bogs. Breed on open farmland, and bare fields.
Northern Pintail Anas acuta	5	16/02/2019	Local winter visitor to wetlands throughout Ireland from October to March. In winter, they form large flocks on brackish coastal lagoons, in estuaries and on large inland lakes.
Peregrine Falcon Falco peregrinus	10	28/01/2021	Widespread resident in Ireland favouring coastal sites and cities with high vantage points
Red-breasted Merganser <i>Mergus serrator</i>	34	23/04/2021	Resident and winter visitor to brackish and marine waters, particularly in shallow protected estuaries and bays and lagoons, and offshore. Nest on sheltered lakes and large rivers throughout the west and north of the country, though they are largely absent from Clare and a few pairs have been recorded in Wexford.
Ringed Plover Charadrius hiaticula	30	02/01/2021	Resident & winter visitor. Peak numbers between August and early October. Winter around the entire coastline but are quite sparse along the north and southeast coasts. Mostly recorded along sandy stretches or along the upper shores of estuaries and non-estuarine coastline.
Sandwich Tern Sterna sandvicensis	16	25/04/2021	Summer visitor to all Irish coasts from March to September. Winters in small numbers in Galway Bay and Strangford Lough. Nest colonially on the ground, mainly on the coast but with some colonies inland. Nests on islands, shingle spits and sand dunes. Present in Ireland from March to September, with occasional winter records
Whooper Swan Cygnus cygnus	11	27/10/2020	Winter visitor to wetlands and nearby open farmland throughout Ireland. Breeding in open shallow water, by coastal inlets, estuaries and rivers

*Greylag Goose *Anser anser* is also listed as a third schedule invasive alien animal under the European Communities (Bird and Natural Habitat Regulations) 2011, as amended. Occurrence of this species is treated as the SCI bird and not domestic breed due to nature of NBDC sighting information for the specific records.

Date	Start /end time	Cloud cover	No. of Brent geese recorded within the redline boundary (tide: rising/high/falling)	
28/09/22	10:30	16:30	0/0/0	0/0/0
20/10/22	07:15	13:15	0/0/0	0/0/0
24/11/22	08:00	14:00	0/0/0	34 / 42 /10
12/12/22	10:00	16:00	0/0/0	16 / 25 / 9
20/01/23	11:00	17:00	0/0/0	5/0/11
15/02/23	08:00	14:00	0/0/0	47 / 21 / 43
15/03/23	10:00	16:00	0/0/0	48 / 85 / 42

4.4 Invasive Alien Plants and Animals

Eight invasive alien plants, scheduled to the European Communities (Bird and Natural Habitat Regulations) 2011 as amended, were returned from the data search parameters (**Table 4.5**).

Wakame Undaria pinnatifida, known to occur in marine habitats⁷, was recorded in 2014 at Carlingford Marina, c. 1.2km from the proposed development site. Wireweed Sargassum muticum, known to occur in marine habitats⁷, was recorded in 2020 in Carlingford Lough c. 2km from the proposed development site. Common Cord-grass Spartina anglica, known to occur in estuarine and coastal habitats, and wetlands⁷, was recorded in 2021 in Carlingford Lough c. 2km from the proposed development site. Giant Hogweed Heracleum mantegazzianum, inhabits mires, bogs and fens; grasslands and landscapes dominated by forbs, mosses or lichens; woodland, forest and other wooded land; constructed, industrial or other artificial habitats; regularly or recently cultivated agricultural, horticultural or domestic habitat⁷, was recorded in 2018 in Carlingford Lough c. 2.5km from the proposed development site. Indian Balsam Impatiens glandulifera, inhabits mires, bogs and fens; heath, scrubland & tundra; woodland, forest and other wooded land; regularly or recently cultivated agricultural, horticultural or domestic habitat⁷ was recorded in 2018 in Rathcor c. 5km from the proposed development site. Japanese Knotweed Fallopia japonica, inhabits mires, bogs and fens; heath, scrubland and tundra; woodland, forest and other wooded land; regularly or recently cultivated agricultural, horticultural or domestic habitat; inland unvegetated or sparsely vegetated habitats; constructed, industrial or other artificial habitats; miscellaneous⁷, was recorded in 2021 in an area of built land within Carlingford town centre c. 200m from the proposed development site. Spanish Bluebell Hyacinthoides hispanica, intentionally planted domestically in horticultural habitat e.g. gardens demesnes, parkland, churchyards, cemeteries and is known to have spread via natural and human assisted into the wild e.g. woodlands, roadsides and waste ground¹², was recorded in 2016 in Mullatee in an area of wry meadows and grassy verges, c. 2km from the proposed development site. Three-cornered Garlic Allium triquetrum, inhabits regularly or recently cultivated agricultural, horticultural or domestic habitat; constructed, industrial or other artificial habitats; miscellaneous⁷, was recorded in 2021 in Carlingford town centre on cultivated land c. 30m from the proposed development site. All species are deemed outside of the ZoI of the proposed development.

Three invasive alien animal species, scheduled to the European Communities (Bird and Natural Habitat Regulations) 2011, as amended, was returned from the data search (**Table 4.5**):

American Mink *Mustela vison* was recorded *c*. 3km east of the proposed development at Millgrange. Brown Rat *Rattus norvegicus* was recorded *c*. 2 km east of the proposed development at Mullatee. These species are deemed outside of the ZoI of the proposed development. The field study recorded no evidence of scheduled invasive alien plant or animals with the ZoI of the proposed development. Eastern Grey Squirrel *Sciurus carolinensis* was recorded *c*. 3 km southeast. Through professional experience, Eastern grey squirrels are locally common throughout Dublin and surrounding counties, including Louth.

Table 4.5: Invasive alien plants and animals	, scheduled to the European	Communities	(Bird and Natural Habitat
Regulations) 2011, as amended			

Common Name Scientific Name	Record count	Date of last record
Wakame Undaria pinnatifida	1	30/09/2014
Wireweed Sargassum muticum	6	10/04/2020
Common Cord-grass Spartina anglica	5	27/01/2021
Giant Hogweed Heracleum mantegazzianum	2	02/01/2018
Indian Balsam Impatiens glandulifera	2	30/09/2018
Japanese Knotweed Fallopia japonica	33	23/06/2021
Spanish Bluebell Hyacinthoides hispanica	2	08/05/2016
Three-cornered Garlic Allium triquetrum	6	02/05/2021
American Mink <i>Mustela vison</i>	4	27/05/2013

¹² Available online at <u>http://nonnativespecies.ie/wp-content/uploads/2014/03/Hyacinthoides-hispanica-Spanish-Bluebell-and-Hybrid.pdf</u> Accessed July 2022

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Common Name Scientific Name	Record count	Date of last record
Brown Rat <i>Rattus norvegicus</i>	3	19/05/2018
Eastern Grey Squirrel Sciurus carolinensis	4	06/09/2014

5 SCREENING ASSESSMENT

5.1 Management of European Sites

AA Screening is not required where the proposed development is connected with, or necessary to the management of any European site. In this case, the proposed development is not directly connected with or necessary to the management of any European site(s).

5.2 Summary of Information Required

The screening assessment for AA follows the methodologies set out in **Section 3**, and analysis of the following information:

- Zol of effect from the proposed development; and
- Distribution of QIs and SCIs in relation to the Zol.

5.3 Assessment of Source-Pathway-Receptor Model

As described in the methodology (**Section 3**), the Screening for AA report assessment adopts a comprehensive and precautionary approach for which the starting point is an initial zone of influence scoping followed by a risk assessment approach on relevant European sites and their QI/SCIs. In this context, **Table 5.1** assesses a specific source-pathway-receptor model for this proposed development.

Phase	Source of Potential Effect	Description of Effect Pathway	Potential Zone of Influence of Effect					
	Noise, vibration, lighting and human presence during movements of vehicles and staff associated with construction activities.	other construction-related disturbance could reduce the ability of populations of QI/ SCI	Varies by species. Generally assessed within 300 m of the proposed development footprint for wintering birds (see Cutts <i>et</i> <i>al.</i> , 2009). However, distance can be significantly lower (e.g. 150 m for otter underground sites (NRA, 2006), or higher (e.g. hen harriers may take flight when nesting at up to 750 m from disturbance (Whitfield <i>et</i> <i>al.</i> , 2008)).					
Construction	Surface water run-off carrying suspended silt or contaminants into local watercourses.	other contaminants (oils, fuels, etc.) may enter nearby	The Zone of Influence of effects from contaminated surface water is difficult to accurately estimate as it will depend on numerous factors including the type and concentration of pollutants, assimilative capacity of receiving waters, and time of year (related to water levels).					
			As a precautionary measure, a reasonable worst-case Zone of Influence for water pollution from the proposed development site is considered to be the downstream surface water catchment. In this report the surface water catchment is defined at the scale of Catchment Management Unit (CMU) as adopted in the River Basin Management Plan					

Table 5.1: Source-Pathway-Receptor Model for the Proposed Development

Phase	Source of Potential Effect	Description of Effect Pathway	Potential Zone of Influence of Effect
			(RBMP) for Ireland 2018-2021 (DoHPLG, 2018). The open coastlines, where Coastal Waterbodies begin, are considered to fall outside the potential Zone of Influence of significant effects.
	Changes of groundwater quality, yield and/or flow paths associated with earthworks during construction.	earthworks) could interfere with groundwater quality, yields and/or flow paths, potentially affecting the water	The potential Zone of Influence of effects from earthworks to ground water quality, flow or/or yield is difficult to accurately estimate as it will depend on factors including the depth and intrusion of excavations, and time of year (related to water levels). As a precautionary measure, a reasonable worst- case spatial Zone of Influence is considered to be 500 m from the point of excavation; which is a precautionary doubling of the 250 m stated as the potential Zone of Influence from intrusive excavations to sensitive upland peatland sites (SEPA, 2014).
		e lead to the dispersal of scheduled invasive species either via machinery,	The Zone of Influence of effects for spread of terrestrial invasive species is difficult to accurately estimate, as plant fragments may be spread on tyre treads to distant unrelated sites. In relation to water-borne spread of vegetation, the Zone of Influence generally is restricted to the surface water Catchment Management Unit, however, neither the desk study nor the field study returned any evidence of invasive species within the proposed development site.
Operation	Noise, lighting, vehicles and human presence.	other operation-related disturbance could reduce the ability of populations of Qualifying Interest/ Special	Given the site is located within a busy area of Carlingford town, the operation of proposed project is not deemed to change the usage of the location with regards to lighting and human presence during the operation of the project. Additionally, as the project proposes to reduce car parking/access and give greater emphasis to pedestrians within the space, this proposed project, when in operation will reduce the noise levels through the reduction of vehicles within the proposed site
	Surface water run-off carrying suspended silt or	other contaminants (oils, fuels,	The Zone of Influence of effects from contaminated surface water is difficult to accurately

Phase	Source of Potential Effect	Description of Effect Pathway	Potential Zone of Influence of Effect
	contaminants into local watercourses.	watercourses through surface water run-off.	estimate as it will depend on numerous factors including the type and concentration of pollutants, assimilative capacity of receiving waters, and time of year (related to water levels). As a precautionary measure, a reasonable worst-case Zone of Influence for water pollution from the proposed development site is considered to be the downstream surface water catchment. In this report the surface water catchment is defined at the scale of Catchment Management Unit (CMU) as adopted in the River Basin Management Plan (RBMP) for Ireland 2018-2021 (DoHPLG, 2018). The open coastlines, where Coastal Waterbodies begin, are considered to fall outside the potential Zone of Influence of significant effects.
	Disturbance of invasive species during the operation of the proposed development.	lead to the dispersal of scheduled invasive species either via vehicle and foot	The Zone of Influence of effects for spread of terrestrial invasive species is difficult to accurately estimate, as plant fragments may be spread on tyre treads to distant unrelated sites. In relation to water-borne spread of vegetation, the Zone of Influence generally is restricted to the surface water Catchment Management Unit, however, neither the desk study or the field study returned any evidence of invasive species within the proposed development site.
	Changes of groundwater quality yield and/or flow paths associated with earthworks during operation.	earthworks and infilling) could interfere with groundwater flow paths, potentially affecting the quality or distribution of	The potential Zone of Influence of effects from earthworks to ground water quality, flow or/or yield is difficult to accurately estimate as it will depend on factors including the depth and intrusion of excavations, and time of year (related to water levels). As a precautionary measure, a reasonable worst- case spatial Zone of Influence is considered to be 500 m from the point of excavation; which is a precautionary doubling of the 250 m stated as the potential Zone of Influence from intrusive excavations to sensitive upland peatland sites (SEPA, 2014).

5.3.1 Risk Assessment and Scoping of Effects

5.3.1.1 Risk Assessment

A complete risk assessment matrix, assessing the risk of the proposed development resulting in a LSE on all relevant QIs and SCIs of relevant European sites is presented in **Table A.1** and **Table A.2** in **Appendix A**. All matrix assessments concluded with an overall result of 'Low Risk', i.e. a risk assessment matrix score of <8.

5.3.2 Scoping of Effects

5.3.2.1 Noise, Vibration, Lighting, and Human Presence

The effects of noise, vibration, lighting, and human presence on SCI species and/or QI habitats and species, during construction and operation of the proposed development, have been assessed. These effects are not predicted to result in any LSEs within the ZoI, as there are no significant populations of QI or SCI species present within the ZoI of the proposed development.

There are no QI species for which Carlingford Shore SAC (IE002306) is designated.

Town Centre Area

For the proposed town centre area, disturbance to SCI species at Carlingford Lough SPA (IE004078 – Republic of Ireland) and Carlingford Lough SPA (UK9020161 – Northern Ireland) is not deemed to result in a likely significant effect as the Republic of Ireland SPA is located *c*. 307m northeast of the town centre area of the proposed development while the Northern Ireland SPA is located *c*. 2.5km north of the town centre area. The town centre areas is predominately build lands with some green space, hard standing tennis courts, car parking and other infrastructure associated with rural town centres along the coast. The response threshold for the disturbance of foraging water birds is calculated to be between 100m and 300m (species dependant) (Cutts *et al.*, 2009). Taking the higher range of 300m, Carlingford Lough SPA falls just outside this zone of disturbance. Additionally, Carlingford Pier and the residential area between Ghan Road and Greenore Road are located between the town centre area and the SPA, providing a barrier between any foraging SCI species on the intertidal flats and the noise generated by construction works and operation.

Car Park and Tennis Court Area

The proposed car park and tennis court area is situated *c*. 3m south of the Carlingford Lough SPA (IE004078) and *c*. 2.3 km south of Carlingford Lough SPA (UK9020161). The proposed site is currently an improved grassland area which provides potential suitable foraging habitat for brent geese, an SCI of Carlingford Lough SPA, within the redline boundary of the proposed development.

Given its designation as an SCI of the adjacent SPA, wintering bird surveys focused on light-bellied brent geese and aimed to determine whether the car park and tennis court area is used by this species as a foraging site and also whether the adjoining intertidal areas was utilised by the species. Surveys recorded no brent geese foraging or resting anywhere within the redline boundary of the proposed development. The response threshold for the disturbance of foraging water birds is calculated to be between 100m and 300m (species dependant) (Cutts *et al.*, 2009). Taking the higher range of 300m, Carlingford Lough SPA falls within this zone of disturbance. Brent geese were recorded within the intertidal area of the adjacent SPA (see Appendix B). The peak number of brent geese recorded in within this zone was 85 individuals at high tide in March 2023. The mean peak (mean of each survey peak) over the survey period was 30 individuals. A localised and short-term disturbance effect during construction is predicted; however, due to the low numbers present and the distance at which they were recorded it is not predicted to result in a Likely Significant Effect on any European sites

Any possible displacement of brent geese, or other SCI species of relevant European sites, during the construction phase and the loss of the grassland during the operational phase of the project will not result in any likely significant effects to any European sites within the ZoI of the proposed development. Therefore, no likely significant effect is predicted. The effects of noise, vibration, lighting and human presence are, therefore, scoped out from further assessment.

5.3.2.2 Habitat Fragmentation/Destruction

The effects of habitat fragmentation and/or destruction on SCI species and/or QI habitats and species, during construction of the proposed development, have been assessed. These effects are not predicted to result in any LSEs within the ZoI, as there are no significant populations of QI or SCI species present within the ZoI of the proposed development. No long-term habitat removal will be carried out during the construction phase and where amenity grassland habitat may be required to be removed, habitat was not deemed to provide significant feeding or nesting sites for SCI fauna and/or QI species and were not deemed to show affinity with any QI habitat. The effects of habitat fragmentation and/or destruction are, therefore, scoped out from further assessment.

5.3.2.3 Surface Water Run-off

The effects of pollution, from surface water runoff, on SCI species and/or QI habitats and species, during construction and operation of the proposed development, have been assessed. These effects are not predicted to result in any LSEs within the ZoI of the proposed development. The effects of pollution from surface water runoff are, therefore, scoped out from further assessment.

5.3.2.4 Disturbance of Invasive Species

The effects of disturbance of invasive species on SCI species and/or QI habitats and species, during construction and operation of the proposed development, have been assessed. Both the desk study and the field survey results indicated that there are no known scheduled invasive species within the footprint of the proposed development. The effects of disturbance of invasive species are, therefore, scoped out from further assessment.

5.3.2.5 Changes of Groundwater Quality, Yield and/or Flow Paths

The effects of changes of yield of groundwater associated with earthworks on SCI species and/or QI habitats and species, during construction and operation of the proposed development, have been assessed. These effects are not predicted to result in any LSEs within the ZoI of the proposed development. The construction phase of the proposed development is of a short duration, with localised interference of a temporary nature. The effects of changes to groundwater are, therefore, scoped out from further assessment.

5.3.3 Key findings

The key findings of this AA Screening Report of the proposed development are that:

• The proposed development is not predicted to result in any LSEs within the Zol of the proposed development.

5.4 In-Combination Effects

Legislation, guidance and case law (See **Section 3**) requires that in-combination effects with other plans or projects are considered. On this basis, a range of other plans and projects were considered in terms of their potential to have in-combination effects with the proposed development on relevant European sites, namely Carlingford Shore SAC and Carlingford Lough SPA.

5.4.1 Plans

A search was conducted of national, regional and local plans which were deemed relevant to the proposed development. This list is not exhaustive of all plans and programmes, but instead focuses on plans which may have result in in-combination effect within relevant European sites. Search results are discussed in **Table 5.2**.

Table 5.2: Planning Search Results – Plans and Programmes

Plan	Conflicting Policies	Protective Policies
National Biodiversity Action Plan 2017-2021 (DCHG, 2017)	n/a	Objective 1: 'Mainstream biodiversity into decision-making across all sectors' Objective 2: 'Strengthen the knowledge base for conservation, management and sustainable use of biodiversity' Objective 3: 'Increase awareness and appreciation of biodiversity and ecosystems service' Objective 4: 'Conserve and restore biodiversity and ecosystem services in the wider countryside' Objective 6: 'Expand and improve management of protected areas and species' Objective 7: 'Strengthen international governance for biodiversity and ecosystem services'
Draft National Biodiversity Action Pla 2023-2027 (DoHLGH, 2022a)	n/a n	Objective 1 Foster a Whole of Government, Whole of Society Approach to Biodiversity. Objective 2 Meet Urgent Conservation and Restoration Needs. Objective 3 Recognise Nature's Contribution to People. Objective 4 Embed biodiversity at the heart of climate action. Objective 5 Enhance the Evidence Base for Action on Biodiversity. Objective 6 Strengthen Ireland's Contribution to International Biodiversity Initiatives.
Louth County Development Plan 2021 2027 (Louth County Council, 2021a)	n/a -	Tourism, Natural Heritage, Biodiversity and Green Infrastructure, Utilities, Environment, Natural Resources and The Coast, Climate Action, Development Management Guidelines strategies within the plan all incorporate protection of the environment or watercourses into objectives and ensure that any development does not cause adverse impacts.
Local Biodiversity Action Plan for County Louth 2021 – 2026 (Louth County Council, 2021b)	n/a	Objective 1: 'Mainstream biodiversity into decision-making across all sectors' Objective 2: Strengthen the knowledge base for conservation, management, and sustainable use of biodiversity' Objective 3: 'Increase awareness and appreciation of biodiversity and ecosystem services' Objective 4: 'Conserve and restore biodiversity and ecosystem services in the wider countryside' Objective 5: 'Conserve and restore biodiversity and ecosystem services in the marine environment' Objective 6: 'Expand and improve management of protected areas and species'
The 2nd Cycle River Basin Management Pla 2018-2021 (DoHPLG, 2018)	n/a n	Binding obligations on Louth County Council, to achieve good status of surface waters, under the terms of the EU Water Framework Directive 2000/60/EC. Objective WQ01: 'Strive to achieve 'good status' in all waterbodies in compliance with the Water Framework Directive, the Eastern River Basin District Management Plan 2009-2015 and the associated Programme of Measures (first cycle) and to cooperate with the development and implementation of the second cycle national River Basin Management Plan 2017-2021.'
Draft - The 3rd Cycle River Basin Management Plan 2022 2027 (DoHLGH, 2022b) ¹		 Binding obligations on Louth County Council, to achieve good status of surface waters, under the terms of the EU Water Framework Directive 2000/60/EC. With regards to Urban Runoff Pressures, the plan aims to: Develop new standards for Combined Storm Overflows to help address the pressures from urban runoff including those impacting on bathing waters. Address the challenges posed by the projected changes in rainfall patterns due to climate change, extensive modelling and monitoring of rainwater run-off and overflows is required. This work will assist policy makers and technical professionals in incorporating appropriate solutions into their long term plans. With regards to Land Use Planning, the plan aims to:

¹³ Available online at <u>https://assets.gov.ie/199144/7f9320da-ff2e-4a7d-b238-2e179e3bd98a.pdf</u> Accessed March 2023.

Plan	Conflicting Policies	Protective Policies
		 Provide planning authorities with clear direction on how to consider the risk that proposed plans or developments, will pose to achieving the objectives of the Water Framework Directive.
		 Avoid inappropriate development in or near water bodies that will pose a risk of not meeting the WFD's environmental objectives or WFD protected areas Ensure best practice sustainable water quality management for all new development Ensure that the consideration of WFD requirements is proportionate to the plan level,
		risk, scale, nature and location of development proposed.

As several protective policies are in place across the plans aiming to preserve biodiversity and water quality in **Table 5-2** above, specific projects arising from plans and programmes will be subject to AA processes. As such, in-combination effects from other plans are not deemed likely.

5.4.2 Projects

A search was conducted of planning applications (projects) using the My Plan map viewer¹⁴ and the Louth County Council Planning Register Map Viewer¹⁵. The search was limited to the five-year period preceding the date of issue of this report and excluded retention applications (i.e. typically local-scale residential or commercial developments where an impact has already occurred), incomplete, withdrawn, and refused applications. Furthermore, a search of An Bord Pleanála's website was completed to identify any relevant applications, including Strategic Infrastructure Development (SID), Strategic Housing Development (SHD), and Part 8 application in the past three years or in close proximity to the proposed development. Key applications are displayed in **Table 5.3** and their potential for in-combination impacts discussed.

Planning Application Reference Number	Proposed Location	Brief Development Description	Application Status/ Outcome	Approximate Distance from proposed development	Date Planning Application Granted	Potential for In- combination effects?
17584	Ghan Road, Carlingford , Co. Louth	Permission for development consisting of a new 3 bedroom part single storey/ part two storey dwelling house, new vehicular entrance with right of way to Ghan Road, new foul sewer connection for proposed new dwelling and existing house, all associated site works and landscaping works	-	<i>c.</i> 280m east	5/2/2018	Given the size and scale of the development, in- combination effects are not deemed likely.
17792	The Liberties, Greenore Road, Carlingford	Permission for development will consist of a surface cal parking facility (367 spaces) to include a single storey toilet block, kiosk/office, electric vehicle charging points, picnic areas, public lighting, landscaping and associated site development works. **SIGNIFICANT FURTHER	Permission - Conditional	<i>c. 5</i> 00m east	23/3/2018	Development has undergone an Appropriate Assessment including Stage 2. The NIS determined that with the proposed mitigation set out in the NIS, the development, either individually or in combination with other plans or projects, will not

Table 5.3: Planning Search Results - Projects

¹⁴Available online at <u>https://viewer.myplan.ie/</u> Accessed July 2022.

¹⁵ Available online at <u>https://www.louthcoco.ie/en/services/planning/online-planning-maps/</u>Accessed July 2022.

Brief Development Potential for In-Planning Proposed Application Approximate **Date Planning** Application Location Description Status/ **Distance from** Application combination Reference proposed Granted effects? Outcome Number development INFORMATION have adverse effect RECEIVED 28/02/2018 on the integrity of which provides for inter any European sites. alia 352 car parking spaces and the inclusion of a 2 storied structure to accommodate ESB sub-station, plant room & equipment store, control office with the re-construction of the existing stone pigeon house over same.** 17969 Ruby Ellen's Tea Permission for tearoom Permission -31/5/2018 Given the size and Room, Newry extension to existing Conditional scale of the Ruby Ellen's Tea Room development, in-Street Carlingford, Co. building and detached combination effects Louth. tea/coffee dock, are not deemed refurbishment of likelv. existing toilet block, new external courtyard area and all associated site works. The existing building is a protected structure ref: LHS005-020 under Louth County Council **Development Plan** 2015-2021. 18723 Oyster Haven, Permission for Permission c. 600m northwest 26/11/2018 Given the size and Carlingford, Co development consistingConditional scale of the of the construction of development, in-Louth. new gates, wings and combination effects piers, alterations to site are not deemed visibility conditions on likely. previously granted planning permission ref no. 05/265 and all associated site development works. 18882 Greenore Road, Planning permission for Permission -Development has c. 500m east 16/5/2019 Carlingford, Co a small residential Conditional undergone an development consisting Appropriate Louth of 5 no. dormer style Assessment dwellings (3 detached concluding Stage 2 & 2 semidetached). AA was not Entrance onto the required. As such, R173 road, connection in-combination to relevant public effects are not utilities together with all deemed likely. ancillary and associated site development works. *Significant Further Information Received on 23/04/2019 provides for an amended proposal of 4 dwellings* 18952 Grove Road / Given the size and Permission for Permission c. 630m south 17/1/2019 Dundalk Road. development as Conditional scale of the Liberties, follows: to construct 2 development, in-Carlingford no. semi-detached combination effects are not deemed dwellings; new entrances to public likely. road; car parking area; footpath along public

Planning Application Reference Number	Proposed Location	Brief Development Description	Application Status/ Outcome	Approximate Distance from proposed development	Date Planning Application Granted	Potential for In- combination effects?
		road; connection to public services; including all necessary site works.				
1982	Ghan Road, Carlingford, Co. Louth	Permission for development to consist of proposed visitors centre incorporating coffee dock and all associated site development works.	Permission - Conditional	<i>c.</i> 430m east	24/2/2020	Development has undergone an Appropriate Assessment concluding Stage 2 AA was not required. As such, in-combination effects are not deemed likely.
19731	Liberties, Carlingford, Co Louth.	Part 8: Infrastructure, LCC intends to develop a greenway from the Station House in Carlingford Town to Carlingford Marina along the shore of Carlingford Lough/the R173 and under the bridge of King John's Castle in the townland of the Liberties.	Permission granted	c. 800m northwest	3/12/2019	Development has undergone an Appropriate Assessment concluding Stage 2 AA was not required. As such, in-combination effects are not deemed likely.
19787	Church Lane, The Liberties, Carlingford	Permission for a detached storey and a half dwelling house, accessed through the existing rear entrance to Ghan House, a protected structure and all associated site development works.		c. 190m south	15/11/2019	Given the size and scale of the development, in- combination effects are not deemed likely.
22701	Carlingford Nursing Home, Old Dundalk Road, Carlingford, Co Louth, A91 C853	Permission for an extension to the existing nursing home consisting of a new two storey extension to the 3 west side of the site along with a new external plant room to the north, landscaping, new bicycle shelter and minor alterations to land profiles, an increase in parking provisions from 33 no. to 51 no. spaces and all other associated site works. The proposed extension will increase the bedroom count from 41 no. bedrooms to 98 no. bedrooms	1	c. 803m southwest	23/02/2023	Development has undergone an Appropriate Assessment concluding Stage 2 AA was not required. As such, in-combination effects are not deemed likely.
22771	Ghan Road , Carlingford , Co Louth	Permission for amendments to previously granted visitors centre granted under planning ref. no. 19/82 to include store and staff toilets and all associated site development works	Permission - Conditional	c. 222m northwest	19/12/2022	Development has undergone an Appropriate Assessment concluding Stage 2 AA was not required. As such, in-combination effects are not deemed likely.

5.4.3 In-Combination Conclusion

Several consented and proposed projects within the vicinity of the proposed development have the potential to result in disturbances or surface water pollution within the Carlingford_010 waterbody providing connectivity to downstream European Sites; however, such applications were subject to AA process and additional commitments required in the specific grant of planning permission. Therefore, where described measures are effectively incorporated, no in-combination likely significant effects are predicted from this development.

No other pathways have been identified by which any plan or project could have a likely significant incombination effect on any European sites. It is concluded that there is no potential for in-combination effects.

6 SCREENING CONCLUSIONS AND STATEMENT

RPS has prepared this report to inform screening for AA to assess whether the proposed development, individually or in combination with other plans or projects, and in view of best scientific knowledge, is likely to have a significant effect on any European site(s).

The screening exercise was completed with cognisance of the relevant European Commission guidance, national guidance, and current case law. The potential impacts of the proposed development have been considered in the context of the European sites potentially affected, their qualifying interests and/or special conservation interests, and their conservation objectives.

Through an assessment of the source-pathway-receptor model, which considered the zone of influence of effects from the proposed development and the potential in-combination effects with other plans or projects, the following findings were reported:

• The proposed development is not predicted to result in any Likely Significant Effects on any European site(s) within the Zone of Influence of the proposed development.

In conclusion, it is the opinion of RPS that AA ('Stage 2') is not required.

As per Article 42(7) of the EU Birds and Natural Habitats Regulations 2011-2015:

"Appropriate Assessment of a plan or project is not required ...if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site".

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Appendix A: Risk Assessment

Table A. 1: Risk Assessment of Qualifying Interests

		Risk Mag	Likely Significant Effect from			
Special Conservation Interest	Relevant European Site(s)	Surface Water Run Off	Disturbance (Noise & Vibration)	Groundwater Interference	Proposed Development?	
Annual vegetation of drift lines [1210]	Carlingford Shore SAC (IE002306)	1 x 1 = 1	2 x 1 = 2	1 x 1 = 1	No	
Perennial vegetation of stony banks [1220]	Carlingford Shore SAC (IE002306)	1 x 1 = 1	2 x 1 = 2	1 x 1 = 1	No	

Table A. 2: Risk Assessment of Special Conservation Interests

		Risk M Mag	Likely Significant Effect from Proposed				
Special Conservation Interest	Relevant European Site(s)	Surface Water Run Off	Disturbance (Noise & Vibration)	e & Groundwater Dev			
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]	Carlingford Lough SPA (IE004078); Carlingford Lough SPA (UK9020161)	1 x 1 = 1	2 x 1 = 2	1 x 1 = 1	No		
Wetlands [A999]	Carlingford Lough SPA (IE004078)	1 x 1 = 1	2 x 1 = 2	1 x 1 = 1	No		
Common Tern (<i>Sterna hirundo</i>) [A193]	Carlingford Lough SPA (UK9020161)	1 x 1 = 1	1 x 1 = 1	1 x 1 = 1	No		
Sandwich Tern (Sterna sandvicensis) [A191]	Carlingford Lough SPA (UK9020161)	1 x 1 = 1	1 x 1 = 1	1 x 1 = 1	No		

Appendix B: WeBS Mapping and Data







			Cloud	Visibility	Wind	Temp.			
Date	Start	End	(Oktas)	(Met Office)	(Beaufort)	(°C)	Precip.	Tidal state	Notes
28-Sep-22	10:30	12:30	7/8	Good >2km	N4	11	Light rain showers	Rising	Digger working within buffer
28-Sep-22	12:30	14:30	4/8	Good >2km	N4	11	None	High	Digger working within buffer
28-Sep-22	14:30	16:30	4/8	Good >2km	N4	13	None	Falling	
20-Oct-22	07:15	09:15	6/8	Good >2km	SE2	13	None	Rising	
20-Oct-22	09:15	11:15	1/8	Good >2km	SE3	12	None	High-mid	
20-Oct-22	11:15	13:15	6/8	Good >2km	SE2	12	None	Falling	
24-Nov-22	08:00	10:00	8/8	Good >2km	SE5	6	Heavy showers	Rising	
24-Nov-22	10:00	12:00	6/8	Good >2km	S5	9	None	High	
24-Nov-22	12:00	14:00	2/8	Good >2km	SSW4	10	None	Falling	
12-Dec-22	10:00	12:00	1/8	Good >2km	NNW1	-2	Frost	Rising	
12-Dec-22	12:00	14:00	6/8	Good >2km	S1	2	Frost	High	
12-Dec-22	14:00	16:00	6/8	Good >2km	SSE2	4	Frost	Falling	
20-Jan-23	11:00	13:00	0/8	Good >2km	SSW 2	3	Snow showers	High	
20-Jan-23	13:00	15:00	0/8	Good >2km	SSW 2	3	Snow showers	Rising	
20-Jan-23	15:00	17:00	0/8	Good >2km	SSW 2	5	Snow showers	Falling	
15-Feb-23	08:00	10:00	6/8	Good >2km	SSW 3	7	None	High	
15-Feb-23	10:00	12:00	2/8	Good >2km	WSW 2	7	None	Rising	
15-Feb-23	12:00	14:00	7/8	Good >2km	SW 4	8	None	Falling	
15-Mar-23	10:00	12:00	8/8	Good >2km	S 3	3	Drizzle	Falling	
15-Mar-23	12:00	14:00	8/8	Good >2km	S 3	5	Drizzle	Rising	
15-Mar-23	14:00	16:00	8/8	Good >2km	SSE 4	8	Drizzle	High	

	Sep-22						. Nov-22 .				Dec-2			Jan-23			Feb-2			Mar-2				
	-	/09/20			0/10/20		24/11/2021			/12/20			/01/20			/02/20		18/03/2022						
	Rising	High	Falling	Rising	High	Falling	Rising	High	Falling	Rising	High	Falling	Rising	High	Falling	Rising	High	Falling	Rising	High	Falling			
Species																						Peak	Mean	
Bar-tailed Godwit	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	Bar-tailed Godwit
Black-headed gull	4	6	2	1	0	3	0	4	1	7	9	12	10	0	0	28	1	18	2	0	0	28	5	Black-headed gull
Black-tailed godwit	0	2	66	0	0	0	0	0	0	3	0	0	0	0	8	50	17	6	0	20	0	50	6	Black-tailed godwit
Brent goose	0	0	0	0	0	0	30	42	10	16	25	9	5	0	11	47	21	43	48	85	42	85	24	Brent goose
Common gull	0	0	0	0	1	5	0	0	0	4	0	0	54	29	2	0	0	1	2	2	0	54	6	Common gull
Cormorant	14	26	35	0	7	6	9	5	3	1	1	1	0	2	0	0	0	3	0	0	0	9	2	Cormorant
Curlew	14	53	82	5	2	14	0	0	0	7	1	0	12	36	1	6	2	7	3	1	1	36	5	Curlew
Dunlin	59	10	42	0	0	21	300	13	300	61	185	190	134	141	48	190	0	180	15	0	0	300	99	Dunlin
Eider	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	0	0	0	35	2	Eider
Great black-backed gull	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	2	0	Great black-backed g
Great Crested Grebe	1	0	0	0	1	0	0	0	2	3	0	0	0	0	0	0	0	0	0	0	0	3	0	Great Crested Greb
Greenshank	0	9	5	1	2	1	0	0	0	14	0	0	0	0	0	0	0	0	0	0	0	14	1	Greenshank
Grey heron	1	3	1	3	1	1	0	0	0	1	1	2	2	2	2	0	0	2	1	0	1	3	1	Grey heron
Herring gull	20	10	20	1	2	2	4	0	0	0	4	1	18	3	0	0	0	0	6	0	1	18	2	Herring gull
Knot	0	0	0	0	0	0	80	1	30	0	0	0	0	5	0	0	0	0	0	0	0	80	6	Knot
Lapwing	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0	20	1	Lapwing
esser Black-backed Gull	0	0	0	0	5	2	3	0	4	12	5	11	18	23	4	16	9	19	6	1	2	23		Lesser Black-backed
Little egret	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	Little egret
Mallard	0	0	0	3	0	0	0	2	1	2	0	0	0	12	0	0	1	0	4	0	0	12	1	Mallard
Oystercatcher	61	71	90	63	110	91	65	26	105	96	104	136	38	150	1	41	36	18	8	104	7	150	67	Oystercatcher
Redshank	78	130	17	0	79	61	0	1	24	17	20	28	10	11	0	39	27	25	6	24	2	79	21	Redshank
Ringed Plover	85	120	88	0	0	0	0	1	1	11	0	0	0	45	0	0	0	0	0	0	0	45	3	Ringed Plover
Tufted Duck	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	Tufted Duck
Turnstone	27	29	22	0	4	24	1	2	0	9	6	4	0	10	0	0	0	0	0	0	0	24	3	Turnstone
Wigeon	0	0	0	0	0	0	0	0	0	32	14	20	1	0	0	0	0	1	15	57	0	57	8	Wigeon
Total	368	472	472	78	215	232	493	97	481	297	375	414	302	489	77	417	114	360	117	294	56	493	296	Total

Common Seal Buzzard

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