Appropriate Assessment Screening Report for the proposed Pontoon at Islandbridge, Dublin 8

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

For: Sean Harrington Architects

3rd Floor

121/122 Capel Street

Dublin 1

SEÁN HARRINGTON ARCHITECTS

On behalf of: Dublin City Council

Civic Offices Wood Quay Dublin 8



by: CAAS

1st Floor

24-26 Ormond Quay

Co. Dublin



Document Control

	Author/Reviewer	Date
Prepared by	Callum O'Regan	Various dates to 17 July 2023
Updated following Biodiversity Officer's comments	Karen Dylan Shevlin	16 March 2023
Updated following ecological survey	Karen Dylan Shevlin	21 Jul. 2023
Reviewed by	Karen Dylan Shevlin	20 July 2023
	Paul Fingleton	21 July 2023
Status of this version	Final	

Table of Contents

1.	. Introduction	1
	1.1. Background	1
	1.2. Report Structure	1
	1.3. Legislative Context	1
	1.4. Overview of the Habitats Directive and Appropriate Assessment Process	2
	1.5. Approach	3
2.	. Description of proposed development	5
	2.1. Receiving Environment Overview	5
	2.2. The Proposed Development	5
3.	. Screening for Appropriate Assessment	7
	3.1. Introduction	7
	3.2. Identification of relevant European sites	8
	3.3. Assessment criteria	12
	3.3.1. Is the development necessary to the management of European sites?	12
	3.3.2. Elements of the proposed development with potential to give rise to effects	12
	3.3.3. Identification of potential effects and screening of sites	12
	3.4. Characterising potential significant effects	13
	3.4.1. Types of potential Effects	14
	3.5. Other plans and projects	26
4.	. Conclusion	33

1. Introduction

1.1. Background

CAAS Ltd. has been appointed by Sean Harrington Architects on behalf of Dublin City Council to examine planning and ecological considerations the proposed installation of a pontoon at Islandbridge, Dublin 8 (the proposed development). This Appropriate Assessment (AA) Screening Report (also known as *Stage One* AA) has been prepared to assess whether or not a Natura Impact Statement (NIS) (also known as *Stage Two* AA) is required for the proposed development. AA is a procedure carried out in accordance with the requirements of Article 6(3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the "Habitats Directive").

1.2. Report Structure

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

1.3. Legislative Context

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

Article 6(3) of the Habitats Directive States:

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

will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public'.

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

Article 3(1) of the Habitats Directive States:

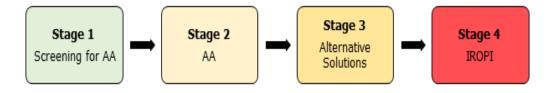
'A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species'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

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

1.4. Overview of the Habitats Directive and Appropriate Assessment Process

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

There are four main stages in the AA process:



Stage One: Screening

The process that identifies the likely impacts upon a European site of a project or plan,

either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

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

Stage Three: Assessment of Alternative Solutions

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

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

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

1.5. Approach

This AA screening is based on best scientific knowledge and has utilised ecological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted. This included a detailed review of the National Parks and Wildlife Website including mapping and available reports for relevant sites and in particular sensitive qualifying interests/special conservation interests described and their conservation objectives. The EPA Envision map viewer (www.epa.ie) and available reports were also reviewed, as was the NPWS (2019) publication "The Status of Protected EU Habitats and Species in Ireland".

The ecological desktop study that has been completed for the AA screening of the proposed development, comprised the following elements:

- Identification of European sites within 15km¹ of the subject lands;
- Identification of European sites within 15km of the site with identification of potential pathways to specific sites (if relevant²) greater than 15km from the subject lands;
- Review of the NPWS site synopses and conservation objectives for European sites within
 15km and for which potential pathways from the proposed site have been identified; and
- Examination of available information on protected species.

¹ While the actual zone of impact is likely to be much smaller, the default 15km zone extent has been applied on a precautionary basis further detail on this is identified in section 3.2

² This is particularly relevant for all sites with hydrological connectivity or other significant ecological pathways

Source-Pathway Receptor Model

Ecological impact assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model, where, in order for an effect to be established, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

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

In the context of this report, a receptor is an ecological feature that is known to be utilised by the qualifying interests or special conservation interests of a European site. A source is any identifiable element of the proposed development that is known to interact with ecological processes. A pathway is any connection or link between the source and the receptor³.

This report provides information on whether direct, indirect and cumulative adverse effects could arise from the proposed development.

Guidance

The AA screening has been prepared taking into account legislation including the aforementioned legislation and guidance including the following:

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

³ qualifying interest or special conservation interests of the European site in question and the known sesnitivities of these key ecological receptors

2. Description of proposed development

2.1. Receiving Environment Overview

The proposed development is located on an island on the River Liffey, to the east of Islandbridge. The surrounding area of the proposed site is highly urban aside from Phoenix Park, which is located just north of the proposed development and the Memorial Gardens which is located to the soutwest of the proposed site (Figure 2.1). In a wider landscape context, the site is situated in Dublin City, which is a highly urbanised area with the River Liffey flowing in an easternly direction into Dublin Bay. The closest European site is South Dublin Bay and River Tolka Estuary SPA (004024) at 5.72km to the east of the proposed site. As the proposed site lies within Dublin City, there are little areas of ecological value surrounding the site other than the site itself and Phoenix Park, which can act as refugia for wildlife.

As detailed in the accompanying Ecological Impact Assessment (EcIA), the proposed development area consists of mixed broadleaved woodland and scrub, which are seasonally flooded. Two invasive species, which are both subject to restrictions (Third Schedule) under Regulation 49 of the European Communities (Birds and Natural Habitats) Regulations, 2011, were recorded on site were during the multidisciplinary ecological walkovers; Himalayan balsam (*Impatiens glandulifera*), and Japanese knotweed (*Reynoutria japonica*). Himalayan balsam being recorded in high numbers on the proposed site itself and Japanese knotweed recorded in smaller patches on the south bank of the proposed site, where a temporary river crossing is proposed to allow construction access. More detail is provided on these species in the accompanying EcIA alongside proposed mitigation methods for best practice removal are detailed in the accompanying Invasive Species Management Plan. Due to the habitat requirements for the proliferation of the above-mentioned invasive species, and considering the QI habitats of the downstream Dublin Bay European sites (see Table 3.1), the occurrence of these species within the proposed development site is not seen as a source for potential significant effect to the European sites assessed herein.

2.2. The Proposed Development

The proposed development is to provide a pontoon on the island with associated walkways to facilitate access to the river for rowing boats and kayaks. The proposed pontoon is comprised of a number of smaller pontoon elements outlined below. The site is currently used for such leisure and recreational activities but is not optimised as such. The pontoon will also to prevent damage to the river banks of the island from the landing of boats and kayaks by providing a landing platform.

The works proposed plan to combine the following elements:

- 1. Construction of a pontoon for use in recreational activities in the River Liffey;
- 2. Improving existing walkways that already exist on the proposed site;
- 3. Installation of a 4x4m wide landing pontoon;
- 4. Installation of a 18x4m wide rowing pontoon; and,
- 5. Installation of a 16x3m gangway.

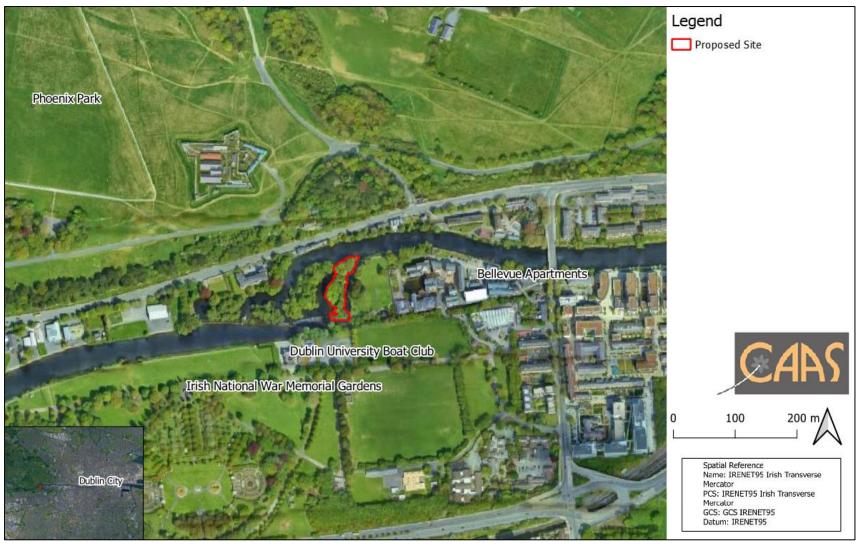


Figure 2.1. Location of the proposed Islandbridge pontoon

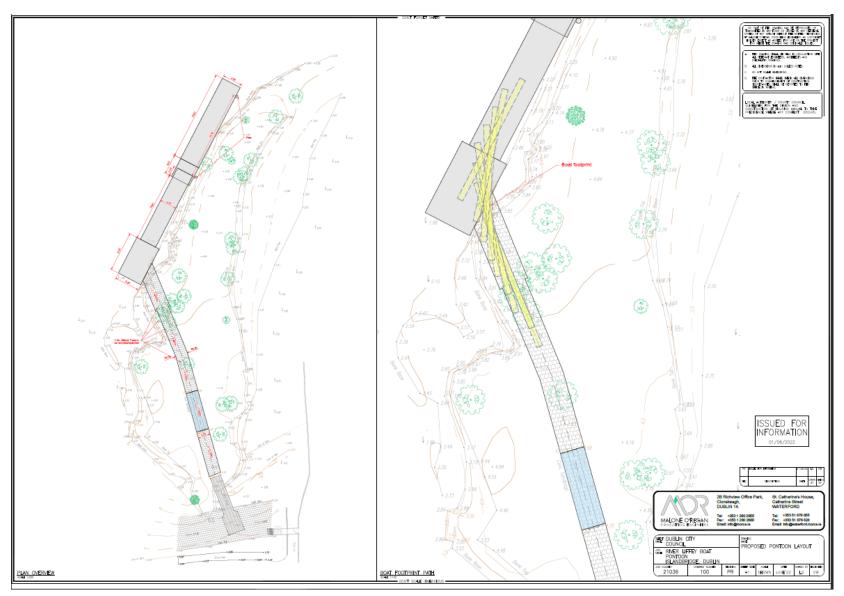


Figure 2.2. Plan of the proposed Islandbridge pontoon

3. Screening for Appropriate Assessment

3.1. Introduction

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

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

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

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

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

Favourable conservation status of a habitat is achieved when:

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

The favourable conservation status of a species is achieved when:

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

3.2. Identification of relevant European sites

There are zones within which potential significant effects to European sites as a result of the proposed development may occur. The Zone of Influence⁴ (ZOI) is defined in the relevant guidance as the geographical area, relative to the proposed development, over which the proposed development could have effects on the receiving environment in a way that could result in potential significant effects on the Qualifying Interests or Special Conservation Interests of a European site.

The Department of Environment, Heritage and Local Government (2009) Guidance on AA recommends that a 15 km buffer ZOI to be considered for Appropriate Assessments. On this basis a 15km ZOI was adopted as the buffer for this report. Beyond 15 km, potential effects arising from the proposed development across terrestrial pathways (i.e., non-hydrological) at this scale are not identified to have no likelihood for potential significant effects due to the nature of the proposed project and the distances involved. However, further considerations were given to hydrological pathways (i.e., surface and/or groundwater) connecting the proposed development to European sites, which may extend beyond the 15 km buffer.

An assessment of the sources of effects (see Section 3.3 below) identifies that there are no significant direct or indirect hydrological pathways, or tributaries / connections to SACs or SPAs. Considering the nature of the proposed development, and the surrounding urban context; the potential effects arising from the proposed development are likely to be within a localised ZOI for the proposed development.

Regarding ex-situ foraging for SCI species of SPAs; it is understood that sites designated for vagile species that are known to utilise isolated resources across the landscape could intersect with the localised zone of influence. However, considering the nature of the proposed development and the surrounding context of the Edenderry town landscape as a built up, urban environment, it is not foreseen that the proposed development will have any sources for introducing potential significant impacts to SPAs.

European sites that occur within the recommended 15km buffer ZOI, or that have been identified to have ecological connectivity pathways for potential effects from the proposed development area are listed in Table 3.1.

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

- Ireland's Article 17 Report to the European Commission "Status of EU Protected Habitats and Species in Ireland" (NPWS, 2019);
- Ireland's Article 12 Report to the European Commission "Bird species' status and trends reporting format for the period 2008-2012-" (NPWS, 2012)
- Site Synopses⁵; and

⁴ Practice Note PN01: Appropriate Assessment Screening for Development Management, Office of the Planning Regulator, 2021.

⁵ NPWS (2019); NPWS Database of protected site data and associated documents for each European site; available at https://www.npws.ie/protected-sites. Datasets accessed: 20th July 2023

NATURA 2000 Standard Data Forms⁶.

The assessment considers the SSCOs of each of the sites within the ZOI. Since the conservation objectives for the European sites focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the screening process has concentrated on assessing the potential effects of the proposed development against the QIs/SCIs of each site. The conservation objectives for each site have been taken into account throughout the assessment process.

⁶ NPWS (2019); NPWS Database of protected site data and associated documents for each European site; available at https://www.npws.ie/protected-sites. Datasets accessed: 20th July 2023

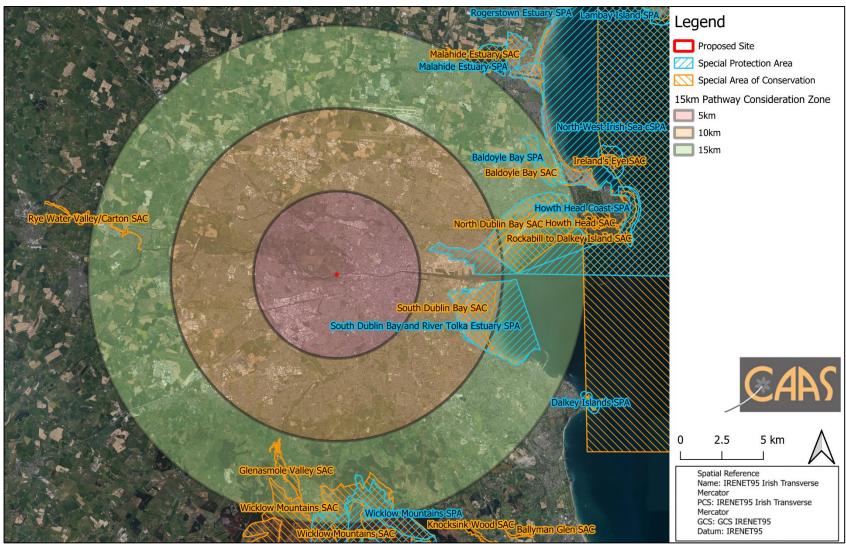


Figure 3.1 European sites within 15km of the proposed development boundary⁷

⁷ Source: NPWS (Datasets accessed: 20th July 2023)



Figure 3.2 Hydrological connectivity to European sites beyond 15km of the proposed development boundary⁸

⁸ Source: NPWS Protected Sites and EPA River Routes (Datasets accessed: 20th July 2023)

3.3. Assessment criteria

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

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

The primary purpose of the proposed development is not the nature conservation management of the sites, but to construct a pontoon for use for sports facilities. Therefore, the proposed development would not be considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

3.3.2. Elements of the proposed development with potential to give rise to effects

This screening assessment process identifies whether the changes brought about by the proposal are likely to cause any direct, indirect or secondary effects (either alone or in combination with other plans or projects) on the European sites. During this assessment a number of factors have been taken into account including the sites' conservation objectives and known threats. The overall aim of the assessment is to predict the consequences that can be reasonably foreseen by implementation of the proposed development.

For the purposes of this assessment the proposed development is identified to have potential to have only construction phase effects (in relation to Europeans sites). The operational phase of the project will be consistent with the existing site use and is anticipated to have low levels of use; the only operational phase effect identified is additional light pollution however, given the site conext and distances to European sites these are not considered to have pathways for effects. The operations of the proposed pontoon will be consistent with existing site use; therefore, is not foreseen to interact with European sites. The construction phase elements of the project also introduce potential sources for effects to ecological processes such as:

- Disturbance effects through noise;
- Earthworks (removal of vegetation etc.);
- Dust; and
- Surface water run-off.

The construction phase will be localised, small-scale and temporary. The construction phase potential effects identified are considered in the context of European sites identified in Table 3.1 below, their sensitivities and conservation objectives.

3.3.3. Identification of potential effects and screening of sites

This section documents the final stage of the screening process. It has used the information collected on the sensitivity of each European site and describes any potential effects on European sites resulting from the proposed development. This assumes the absence of any controls, conditions, or mitigation measures. In determining the potential for effects, a number of factors

have been taken into account. Firstly, the sensitivity and reported threats to European sites. Secondly, the individual elements of the proposed development and the potential effects they may cause on the sites were considered. The elements of the proposed development with potential to affect European sites are presented in Table 3.1.

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

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

3.4. Characterising potential significant effects

This section of the report explains the metrics used when assessing if the potential effects (previously identified) will have significant implications for European sites. The following parameters are described when characterising impacts (following guidance from the Chartered Institute of Ecology and Environmental Management, Environmental Protection Agency and National Roads Authority):

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

The Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines for ecological impact assessment (2016) define: an ecologically significant impact as an impact (negative or positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area; and the integrity of a site as the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

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

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

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

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

A Generic Conservation Objective for a SAC is provided below:

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

A Generic Conservation Objective for a SPA is provided below:

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

3.4.1. Types of potential Effects

EC guidance⁹ outlines the types of effects that may affect European sites. These include effects from the following activities:

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

The 2001 European Commission AA guidance outlines the following potential changes that may

⁹ Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Environment DG, 2001

occur at a designated site, which may result in effects on the integrity and function of that site:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (water quality etc.)
- Climate change

The elements detailed above were considered with specific reference to each of the European sites identified in Table 3.1 but are also considered in a broader sense below.

Loss/reduction of habitat area

There are no European sites present within the proposed development boundary and the closest European site is 5.72 km away (see Figure 3.1). Similarly, there were no Annex I habitats or supporting habitat for Annex II species identified on site. Therefore, there will be no effects posed to European sites in this respect.

Habitat or species fragmentation

The site is a river island on the River Liffey that contains a mixed broadleaved woodland and an area of scrub. There were no Annex I habitats or supporting habitat for Annex II species identified on site. The alterations to the proposed site will result in a small number of trees being removed to accommodate the improved walkways, however there is a tree planting plan accompanying the application that will plant habitat appropriate native species (no. 16 trees) as part of the proposed development. In any case the woodland and scrub identified is not sufficient to support any SCI species at any impactful scale. The area has been considered at a landscape scale with respect to connectivity and ecological corridors between European sites; there are no functional pathways that will be interupted by the proposed development. The river itself is a direct hydrological connection between the proposed development site and the European sites within Dublin Bay; however, there are direct surface hydrological connections to European sites as the site is located on the River Liffey, however considering the small scale and temporary construction phase with minimal change occurring of the receiving environment as a result of the proposed development, there are no potential for effects in terms of habitat and species fragmentation as a result of the proposed development.

Disturbance to key species

None of the species and/or habitats identified in Table 3.1 were recorded on site. The nearest European site is 5.72 km from the proposed site and therefore disturbance effects due to noise or lighting etc. are not present. Given that the operational phase will be in keeping with the current low levels of activity – as well as the temporary small-scale nature of the construction phase – there are no significant effects related to ex-situ foraging, or disturbance identified.

Reduction in species density

There is an ecological corridor between the proposed site and European sites through the River Liffey. However, there are no habitats identified on site of any ecological significance for the European sites located 5.72km downstream of the proposed development site – and the majority of the habitats on site will be retained in the operational phase of the proposed development. As there

is no significant supporting habitat for SCI species, and due to the operational phase being in keeping with the current use and status of the proposed development site, in addition to the temporary, small-scale nature of the construction phase; there will be no reduction in species density of any of the QI or SCI species.

Changes of indicators of conservation value

The proposed development site is located on the River Liffey, and is 5.72 km from the closest European site. Therefore, the proposed site has a direct hydrological connection with European sites downstream via the River Liffey. The works relate to the provision of a floating ponton for kayaking facilities to accommodate launching and retrieval of kayaks from the river – and is not intended to increase use, rather provide facilities for the appropriate use and reduction of damage to the river bank. There is no water infrastructure proposed as part of the development – only the installation of the pontoon itself. This will require the insertion of a concrete platform to improve the safety of the current access point for the island. The concrete platform will be constructed using a number of precast caisson structures which will be filled with clean, crushed stone and topped with an in-situ concrete deck slab. Rock fill placed against the side of the caissons and the riverbank will provide scour protection to the edges of the concrete platform. These elements will be minor and are not substantial enough to interact with the siltation of the river system, or water quality in any way that will have the potential to affect the hydrological quality of the European sites 5.72km downstream.

Therefore, given the localised, small scale nature of the proposed works, and temporary nature of the potential effects identified, there are no sources for effects with pathways that will affect any conservation indicators related to European sites.

Climate change

The proposed works will not result in any greenhouse gas emissions to air during the operational phase. The construction phase works will have increased temporary emissions which will be localised however, given the distance to the nearest European site these are determined to be negligible. Such effects upon greenhouse gas emissions will not affect changes projected to arise from climate change to the degree that it would affect the QIs or SCIs of the European sites considered.

Table 3.1 Screening assessment of the potential effects arising from the proposed development

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
004024	South Dublin Bay and River Tolka Estuary SPA	5.72	Common tern (Sterna hirundo) [A193], Dunlin (Calidris alpina) [A149], Oystercatcher (Haematopus ostralegus) [A130], Roseate Tern (Sterna dougallii) [A192], Arctic tern (Sterna paradisaea) [A194], Sanderling (Calidris alba) [A144], Knot (Calidris canutus) [A143], Black-headed Gull (Chroicocephalus ridibundus) [A179], Ringed Plover (Charadrius hiaticula) [A137], Redshank (Tringa totanus) [A162], Bar-tailed Godwit (Limosa lapponica) [A157], Wetland and Waterbirds [A999], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Grey Plover (Pluvialis squatarola) [A141]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SPA is sensitive to hydrological interactions, direct land use management and disturbance effects. This site is 5.72km from the proposed development. There are no sources for effect for direct land use management of the SPA as this site is outside of the site boundary. There is a direct hydrological pathway between the proposed development and the SPA via the River Liffey. SCI species are sensitive to disturbance effects; in general distances beyond 2km are seen to be sufficient to preclude such effects ^{10,11} . These distances can vary due to factors such as species and/or time of year ^{12,13} . Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard. These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development; however, at this scale landscape characteristics and the availability of alternate resources ensure the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the indirect hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.	No	No
000210	South Dublin Bay SAC	6.74	Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to hydrological interactions and direct land use management. This site is 6.74km from the proposed development. There are no	No	No

¹⁰ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

¹¹ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

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

¹² Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845-862

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
			[1140], Annual vegetation of drift lines [1210], Embryonic shifting dunes [2110]	sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SAC through the River Liffey. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
004006	North Bull Island SPA	8.83	Knot (Calidris canutus) [A143], Bar-tailed Godwit (Limosa lapponica) [A157], Grey Plover (Pluvialis squatarola) [A141], Dunlin (Calidris alpina) [A149], Golden Plover (Pluvialis apricaria) [A140], Shelduck (Tadorna tadorna) [A048], Pintail (Anas acuta) [A054], Sanderling (Calidris alba) [A144], Oystercatcher (Haematopus ostralegus) [A130], Wetland and Waterbirds [A999], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Black- headed Gull (Chroicocephalus ridibundus) [A179], Curlew (Numenius arquata) [A160], Shoveler (Anas clypeata) [A056],	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SPA is sensitive to hydrological interactions, direct land use management and disturbance effects. This site is 8.83km from the proposed development. There are no sources for effect for direct land use management of the SPA as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SPA via the River Liffey. SCI species are sensitive to disturbance effects; in general distances beyond 2km are seen to be sufficient to preclude such effects ^{14,15} . These distances can vary due to factors such as species and/or time of year ^{16,17} . Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard. These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development; however, at this scale landscape characteristics and the availability of alternate resources ensure the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the direct	No	No

¹⁴ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

¹⁵ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

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

¹⁷ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845-

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
			Redshank (<i>Tringa totanus</i>) [A162], Turnstone (<i>Arenaria interpres</i>) [A169]	hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
000206	North Dublin Bay SAC	8.84	Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Humid dune slacks [2190], Mudflats and sandflats not covered by seawater at low tide [1140], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Petalwort (Petalophyllum ralfsii) [1395], Annual vegetation of drift lines [1210], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410], Embryonic shifting dunes [2110]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to land use management and hydrological interactions. This site is 7.72km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SAC via the River Liffey. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.	No	No
001209	Glenasmole Valley SAC	10.39	Petrifying springs with tufa formation (Cratoneurion) [7220], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to direct land use management activities and hydrological interactions. The site is 10.39km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There are also no hydrological pathways between the proposed development and the SAC and no sources of effect to groundwater due to the nature of the proposed development. Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no potential sources for	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
				direct land use management or hydrological effects identified due to lack of hydrological connectivity. Thus, there are no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
004236	North-West Irish Sea cSPA ¹⁸	10.88	Common Tern (Sterna hirundo) [A193], Common Scoter (Melanitta nigra) [A065], Razorbill (Alca torda) [A200], Arctic Tern (Sterna paradisaea) [A194], Great Northern Diver (Gavia immer) [A003], Puffin (Fratercula arctica) [A204], Black-headed Gull (Chroicocephalus ridibundus) [A179], Red-throated Diver (Gavia stellata) [A001], Little Tern (Sterna albifrons) [A195], Lesser Black-backed Gull (Larus fuscus) [A183], Herring Gull (Larus argentatus) [A184], Great Black-backed Gull (Larus marinus) [A187], Guillemot (Uria aalge) [A199], Roseate Tern (Sterna dougallii) [A192], Kittiwake (Rissa tridactyla) [A188], Fulmar (Fulmarus glacialis) [A009], Shag	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SPA is estimated ¹⁸ to be sensitive to hydrological interactions, direct land use management and disturbance effects. This site is 8.83km from the proposed development. There are no sources for effect for direct land use management of the SPA as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SPA via the River Liffey. SCI species are sensitive to disturbance effects; in general distances beyond 2km are seen to be sufficient to preclude such effects ^{19,20} . These distances can vary due to factors such as species and/or time of year ^{21,22} . Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard. These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development; however, at this scale landscape characteristics and the availability of alternate resources ensure the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the direct	No	No

¹⁸ The Regulation 15 notification, issued on 13TH of July 2023, by the NPWS, began the first stage in the designation process for this candidate SPA. Supporting information regarding this cSPA, including the site's Conservation Objectives and threats and pressures, have yet to be published by the NPWS at the time of compiling this report. Therefore, the assessment was conducted using the best, most recent information for this cSPA provided by the NPWS.

¹⁹ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

²⁰ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

¹¹ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

²² Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845-862.

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
			(Phalacrocorax aristotelis) [A018], Common Gull (Larus canus) [A182], Little Gull (Larus minutus) [A177], Manx Shearwater (Puffinus puffinus) [A013], Cormorant (Phalacrocorax carbo) [A017]	hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
001398	Rye Water Valley/Carton SAC	11.85	Petrifying springs with tufa formation (Cratoneurion) [7220], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Desmoulin's whorl snail (Vertigo moulinsiana) [1016]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to hydrological interactions and direct land use management. This site is 11.85km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There are also no hydrological pathways between the proposed development and the SAC. Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no potential sources for direct land use management, or hydrological effects identified due to lack of hydrological connectivity. Thus, there are no sources with a likelihood for potential significant effects identified, and no further assessment is required.	No	No
002122	Wicklow Mountains SAC	12.06	European dry heaths [4030], Siliceous rocky slopes with chasmophytic vegetation [8220], Old sessile oak woods with llex and Blechnum in the British Isles [91A0], Northern Atlantic wet heaths with Erica tetralix [4010], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Calaminarian grasslands of the Violetalia	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to disturbance effects, direct land use management activities and hydrological interactions. This site is 12.06km from the proposed development. There are no sources for effect for direct land use management or disturbance effects of the SAC as this site is outside of the project boundary. There are also no hydrological pathways between the proposed development and the SAC. Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no potential sources for direct land use management, disturbance effects, or hydrological effects	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
			calaminariae [6130], Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Calcareous rocky slopes with chasmophytic vegetation [8210], Otter (Lutra lutra) [1355], Alpine and Boreal heaths [4060]	identified, due to the lack of hydrological connectivity. Thus, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
004040	Wicklow Mountains SPA	12.06	Peregrine falcon (Falco peregrinus) [A103], Merlin (Falco columbarius) [A098]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SPA is sensitive to disturbance effects and direct land use management activities. This site is 12.06km from the proposed development. There are no sources for effect for direct land use management of the SPA as this site is outside of the project boundary. SCI species are sensitive to disturbance effects; in general distances beyond 2km are seen to be sufficient to preclude such effects ^{23,24} . These distances can vary due to factors such as species and/or time of year ^{25,26} . Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard. These SCI species are highly vagile and therefore may utilise ex-situ ecological	No	No

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

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

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

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

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
				resources which may have interactions with the proposed development; however, at this scale landscape characteristics and the availability of alternate resources ensure the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard. Given the distance, the small-scale temporary nature of the potential effects and lack of hydrological pathways, there no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
000199	Baldoyle Bay SAC	13.15	Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Mediterranean salt meadows (Juncetalia maritimi) [1410]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to hydrological interactions and direct land use management. The site is 13.15km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SAC through the marine environment. Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the direct hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.	No	No
004016	Baldoyle Bay SPA	13.57	Ringed Plover (Charadrius hiaticula) [A137], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Wetland and Waterbirds [A999], Golden Plover (Pluvialis apricaria) [A140], Bartailed Godwit (Limosa lapponica) [A157], Shelduck (Tadorna tadorna) [A048], Grey Plover (Pluvialis squatarola) [A141]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 13.57km from the proposed development. There are no sources for effect for direct land use management of the SPA as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SPA through the marine environment. SCI species are sensitive to disturbance effects; in general distances beyond	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
				2km are seen to be sufficient to preclude such effects ^{27,28} . These distances can vary due to factors such as species and/or time of year ^{29,30} . Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.		
				These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development; however, at this scale landscape characteristics and the availability of alternate resources ensure the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard.		
				Given the distance, the small-scale temporary nature of the proposed development, in combination with dilution effects through the direct hydrological pathways, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		
000202	Howth Head SAC	14.58	European dry heaths [4030], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area. The SAC is sensitive to direct land use management activities. This site is	No	No
				14.58km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary.		
				Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no potential sources for direct land use management identified.		
				Thus, there are no sources with pathways for significant effects foreseen and no further assessment is required.		
003000	Rockabill to	14.86	Harbour porpoise (Phocoena	There are no Annex I habitats or supporting habitats for Annex II species within	No	No

²⁷ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

²⁸ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

²⁹ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

³⁰ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845-862.

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In- Combinati on Effects
	Dalkey Island SAC		phocoena) [1351], Reefs [1170]	the proposed development area.		
				The SAC is sensitive to hydrological interactions and direct land use management activities. This site is 14.86km from the proposed development. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary. There is a direct hydrological pathway between the proposed development and the SAC through the marine environment.		
				Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no potential sources for direct land use management, or hydrological effects identified, due to dilution effects through the marine environment.		
				Thus, no sources with a likelihood for potential significant effects identified, and no further assessment is required.		

3.5. Other plans and projects

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

As part of this assessment a search of the Dublin City Council planning database was undertaken to identify relevant plans and programmes which relate to the proposed development. Similarly, all developments from the receiving area were considered; this was achieved through a search of the national planning database using a distance parameter around the red line boundary to search. The radius is defined by the authoring ecologist using criteria which depend on the characteristics of the proposed development and the associated sources (identified above); these criteria include:

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

These factors are considered in the context of characteristics of the proposed development and a distance buffer of 200m was used to search for projects within the receiving environment. The sources for effects from the proposed development are considered in combination with the potential sources for effects from the receiving environment for potential additive or interactive effects to the receiving environment.

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

- Dublin City Development Plan 2022 2028
- Dublin City Biodiversity Action Plan 2021-2025

Considering that the proposed development has a small-scale temporary construction phase and the operational phase is consistent with the existing land use and character, it is not foreseen that proposed development will have any significant in-combination effects with the above plans.

Projects within the receiving environment assessed for in-combination with effects arising from the proposed development:

To identify projects for consideration for the in-combination effects section, the National Planning and Housing development database was used³¹. A review of all planning applications within the identified zone was conducted focusing on all application within the past 5 years³² within a radius of 200m. **Error! Reference source not found.** displays local planning applications³³ relevant to the

³¹ Source: https://data-housinggovie.opendata.arcgis.com/datasets/planning-application-sites-2010-onwards; dataset accessed 20th July 2023

³² Planning applications have a standard lifespan of 5 years as per Section 40 (3)(b) of the Planning & Development Act 2000, as amended; therefore, these are viewed to be the 'live' applications, all other projects are considered as part of the site other than refused and withdrawn applications, as these would not have any in-combination effects

³³ The majority of surrounding developments within Dublin city are minor projects with no risk of in-combination effects. Therefore, a summary list of provided here of the five largest proposed developments within the below stated parameters

proposed development³⁴ that have been examined for potential significant in-combination effects resulting from this search.

As the the proposed development located in Dublin City, there are numerous other proposed developments om the vicinity including works which are at planning stage or underway on various sites The database search found that the majority of projects within the area are relating to the altering of existing structures, small private home extensions, extension of permissions, and minor developments along with larger in scale projects which fall under the Dublin City Development Plan housing targets (see Table 3.2 for complete list).

All construction and infrastructure work in the local area are small – medium in scale and best practice construction measures will also be implemented for each. Due to the scale and nature of the proposed works there are no significant effects identified as a result of the installation of the proposed Islandbridge Ponton other than repair works on existing sewage systems. However, once mitigation measures are implemented, as detailed in the Ecological Impact Assessment (EcIA) accompanying this report, any in-combination effects will be negligible. On this basis, assessment guidance (CIEEM, 2018) indicated that there is no need to consider cumulative effects. However, taking a precautionary approach, relevant plans and projects have nonetheless been reviewed and assessed in Table 3.2.

These developments will increase cumulative impacts of the proposed development project but only during the construction phase, and, given the overall long-term negligible effects of the proposed development, the overall cumulative effects for local biodiversity as a result of the proposed development are also negligible.

_

³⁴ Parameters used: planning application from within the last 5 years, within a radius of 200m around the proposed development boundary

Table 3.2 Local planning applications³⁵ within the surrounding area of the proposed development³⁶

Project Code	Status	Overview	Grant Date	Project Area (sq m) ³⁷	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant incombination effects?
3808/21	Additional	PROTECTED STRUCTURE The development will consist of repair, conservation, change of use, and minor additions and alterations to, and ancillary works to a number of buildings in the Magazine Fort (a Protected Structure, RPS 6760, and on the Record of Monuments and Places RMP nos. DU018-007019) to facilitate access and use by the public, and will include: 1. The repair, conservation, change of use and minor alterations of the existing Johnston Ravelin Buildings which consist of Officers Quarters (a 1 storey building with an existing half basement, and total GFA of 329 m2, referred to as Building K in the Planning Application documents and drawings), Sergeants Quarters (a 1 storey with existing basement and total GFA of 213 m2, Building L), Men's Hut (a 1 storey building with a total GFA of 40 m2, Building O) Ablution Room (a 1 storey building with a total GFA of 21m2, Building H), Sentry Box (a 1 storey building with a total GFA of 25 m2, Building J), Men's WCs (Building M, a 1 storey building with a total GFA of 9 m2), and Women's Washhouse (Building N, a 1 storey building with a total GFA of 9 m2), and Women's WCs (Building W, a 1 storey building with a total GFA of 1 m2); The repair and conservation work of the Fort's Johnston Ravelin Buildings (Buildings H,K, L, N and W listed above) includes re-roofing with slate and lead flashings, new cast-iron rainwater goods, and general repairs to brickwork, windows, doors, timber flooring, ceiling, chimneys, plasterwork and joinery. The repair and conservation works at the Johnston Ravelin courtyard and moat areas will consist of the refurbishment and augmentation of the existing cobbles and stone paving and the reinstatement of salvaged metalwork (gates and railings) to the courtyard; A change of use of the former Officers' Quarters and Sergeants Quarters (Buildings K and L) for use as Visitor and Staff Facilities to include, at ground floor level, Visitor Reception, Locker Room, Tea Room, Accessible Toilets and Staff Offices; and, at basement level, Kitchen, Staff Fa	2022/08 /10	23,259	This is a project with a short-term construction phase and is a small project in scale and thus the effects from the project will be localised and be in keeping with the current environment. The proposed upgrade works are small scale with a temporary construction phase. There are no significant in-combination effects identified. The consent process for this project was subject to applicable EIA and AA requirements.	No

³⁵ The majority of surrounding developments within Dublin city are minor private dwelling projects with no likelihood of in-combination effects. Therefore, a summary list of provided here of the five largest proposed developments within the below stated parameters

³⁶ Parameters used: planning application from within the last 5 years, within a radius of 200m around the proposed development boundary

³⁷ Area is estimated using QGIS software subsequent to retrieving dataset from the Council.

Project Status Code	Overview	Grant Date	Project Area (sq m) ³⁷	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant incombination effects?
	internal existing fabric will consist of 2 nos. openings in 2 nos. walls in the Officers' Quarters and Sergeants Quarters (Buildings K and L), and the partial removal of timber flooring at ground floor level to provide for new staff stairs, the removal of damaged timber flooring at the basement and replacing with concrete; Alterations to the external fabric will include the removal of derelict subsidiary stair, wall and toilets, the removal of damaged external concrete ground surfaces, the removal of modern external gate, the removal of the Men's Hut, the removal of the metal shed to Ablution Room. New internal built works include the provision of new staff stairs and new partitioning for the new toilets; New external built works include the replacing of existing external concrete surface and limited cobbled areas with new textured concrete with integrated wayfinding recessed elements; the provision of new guardrails and addition of new external stairs to moat area, a new postern gate at the south moat wall, and a new metal external entrance gate and bridge with signage; 2. The restoration of the Duke of Dorset Archway, using original stonework which is currently stored on site. Interventions to the inner entrance bridge to consist of the removal of the existing metal grating and the provision of proposed new metal walkway and guardrails onto existing steel I-beams; 3. The insertion of a new metal walkway (809 m2) at the inner Fort ground level and at the Rampart Walls bank level to facilitate a universally accessible circumnavigational public access of the Fort and Ramparts (Building 2) to consist of: At ground level, the removal of damaged concrete paths and repair of surrounding cobble surfaces and the insertion of the proposed 1.8m wide perforated metal walkways supported on sleepers following the existing layout of concrete paths and concealing electrical services distribution; Alterations to the existing fabric of the Rampart Walls consisting of the opening up of gun embrasures located along the West, Sou				

Project Code	Status	Overview	Grant Date	Project Area (sq m) ³⁷	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant incombination effects?
		Southeast bastion. No element of the proposed walkway is above the existing height of the Rampart Walls' parapets; The provision of access at change of levels between ground and rampart walkways involving the erection of 2 no. steel truss ramps at the Northwest and Southeast bastions; and a Part M accessible lift and access lobbies (2 storeys and c.7.2m in height) at the Northwest bastion. The lift structure will consist of a weathered blockwork shaft on concrete pit foundation with adjoining protected access lobbies, all clad in metal cladding; 4. The repair, conservation, change of use and minor alteration of the existing corrugated iron Bakery Building (a 1 storey building with a total GFA of 296 m2, Building B) consisting of local repairs where necessary for Health & Safety, to the wall sheeting and the replacement of roof coverings, cleaning of the steel frame and stanchion structural remedial works, the provision of new metal rainwater goods, and the restoration and weatherproofing of windows and doors. The change of use consists of the use of the Bakery Building as a new unheated exhibition and visitor orientation/gathering spaces (total GFA of 296 m2). Alterations to the existing fabric include the removal of 1 no. corrugated sheeting wall; 5. The repair, conservation, change of use and minor alteration of the existing Magazine Gunpowder Store Buildings (a 1 storey building containing 3 no. Vaults with a total GFA 704 m2, Building A) to consist of: Repair and conservation works including the recovering of slate roofing with new felt and timber battens and re-use of existing slate, with new slate as required to match existing, the restoration of stone capping, the repair of external wall harling and stonework, the restoration of rainwater goods and new to match existing where required, the repair of existing timber flooring, and the repair of the brick vaulted structure, including structural stitching to corners; The change of use of the Magazine vaults consists of the use of the former Vaults as new unh				
		fabric to consist of the provision of a connection between Vaults B and C and the demolition of relevant wall section, the removal of later added concrete flooring in Vault C and the removal of later added brickwork to the front of Vault C. New build consists of the insertion of a new metal walkway, seating and railings supported on steel frame and timber sleepers, in Vaults B & C and the porch of Vault A; and the provision of a new dark room door at the front of Vault C., and lining to the proposed connection; 6. The repair, conservation and change of use of the Shifting				

Project Code	Status	Overview	Grant Date	Project Area (sq m) ³⁷	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant incombination effects?
		Room (a 1 storey building with a total GF of 25 m2, Building G) to provide a new switchroom and an AV room; 7. The provision of electrical services along the new walkways; which consists of the removal of existing switchboards in the Sentry Box (a 2 storey building with a total GFA of, 22 m2, Building J) and provision of a switchroom in the Officers' Quarters the provision of surface ducting (below proposed metal walkway-see 3.);8. The repair of existing drainage networks as necessary and provision of new connections from the Johnston Ravelin visitor facilities (see 1.) to the existing network.				
3309/19	Grant Permission	PROTECTED STRUCTURE: The development will consist of alterations to previously approved development under Pl. Reg. Ref 3484/18. Particulars proposed consist of: (i) providing passenger lift access to the roof terrace of Block O with associated alterations to plans & elevations. (ii) Extension to existing enclosed bin store and associated alterations to boundary walls including alterations to elevations. (iii) Omission of previously approved bin storage area adjoining Block O. (iv) Alterations to existing site boundary walls and associated works. (v) Revised site boundaries and layout plan incorporating bin storage. The proposed development is located on lands adjacent to protected structures.	2019/10 /29	8,133	This is a project with a short-term construction phase and is a medium project in scale and thus the effects from the project will be localised and be in keeping with the current environment. The proposed upgrade works are small scale with a temporary construction phase. There are no significant in-combination effects identified. The consent process for this project was subject to applicable EIA and AA requirements.	No
2140/21	Grant Permission And Retention Permission	PROTECTED STRUCTURE: Islandbridge Bellevue Developments Ltd (in receivership) c/o of Grant Thornton Corporate Finance Ltd intend to apply for permission for a development at this site. Particulars proposed consist of: (i) Provision of new wall with railing along bank of River Liffey along full length of existing site. (ii) Provision of brick facade to part of west elevation of Block D previously granted under Dublin City Council Planning Reference Number 2732/16 and An Bord Pleanala Reference PL 29S.246908.	2021/08 /06	8,028	This is a project with a short-term construction phase and is a medium project in scale and thus the effects from the project will be localised and be in keeping with the current environment. The proposed upgrade works are small scale with a temporary construction phase. There are no	No

Project Code	Status	Overview	Grant Date	Project Area (sq m) ³⁷	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant incombination effects?
		(iii) Retention of window to west elevation of Block D previously granted under Dublin City Council Planning Reference Number 2732/16 and An Bord Pleanala Reference PL29S.246908. These works to be carried out to and within the curtilage of protected structure RPS Reference no. 1852, Islandbridge Mills Complex.			significant in-combination effects identified. The consent process for this project was subject to applicable EIA and AA requirements.	
3484/18	Grant Permission	PROTECTED STRUCTURE; Alterations to previously approved development under An Bord Pleanála decision reference PL.29S.246908. Particulars proposed consist of: (i) Provision of a 5-storey apartment block (block A) with overall apartment mix revised from 6 no. 1-bed and 14 no. 2 bed apartments (as previously granted) to 20 no. 2-bed apartments with associated alterations to floor plans and elevations, provision of a roof-top garden area and associated site works. (ii) Omission of previously approved basement car park (previously proposed under Block A of An Bord Pleanála's decision reference PL29S.246908) and reconfiguration of the site layout to provide for 10 no. surface level car parking spaces and all associated alterations to site layout. (iii) Revised site layout to consist of omission of Block C (as previously proposed) in accordance with condition no. 2 of An Bord Pleanála decision reference PL29S.246908 (IV) Provision of a total of 20 no. car parking spaces and 72 no. bicycle spaces within the overall site area in conjunction with associated hard and soft landscaping works. (v) New connections to all existing services with all associated and ancillary site works. The proposed development is located on lands adjacent to protected structures.	2018/12 /19	7,812	This is a project with a temporary construction phase and is a relatively small project in scale and thus the effects from the project will be localised and be in keeping with the current environment. The proposed upgrade works are small scale with a temporary construction phase. There are no significant in-combination effects identified. The consent process for this project was subject to applicable EIA and AA requirements.	No

4. Conclusion

This Appropriate Assessment Screening Report has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the proposed installation of a pontoon at Islandbridge, Dublin 8. Through an assessment of the potential sources and potential pathways for significant effects; an evaluation of the project characteristics; taking account of the processes involved and the distance of separation from European sites, it has been evaluated by this report, which intends to inform the competent authority on the Appropriate Assessment process, that there is no likelihood of potential significant effects occurring to the Qualifying Interests, Special Conservation Interests Or The Conservation Objectives of any designated European site as a result of the implementation of the proposed development.

Given the proposed development's small scale, temporary timeline, and its nature in the context of the urban, highly developed local environment setting, and the nature and context of the other plans and projects identified in this report; the proposed development is not foreseen to have any likelihood for potential significant in-combination effects arising from any other plans or projects.

It is concluded by this AA Screening Report that the proposed development is not foreseen to have any likelihood of significant effects on any European sites, alone or in combination with other plans or projects – and therefore any potential for significant effects on any European site as a result of the proposed development can be ruled out. This conclusion is made in view of the conservation objectives of the habitats or species for which these sites have been designated. Consequently, this report informs the competent authority undertaking the Appropriate Assessment process that the proposed development does not need to be subject to Stage Two Appropriate Assessment and a Natura Impact Statement is not required.

Appendix I Background information on European sites

European sites with functional connectivity (ecological pathways) to the proposed development area including their Qualifying Interests, known threats and pressures

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000199	Baldoyle Bay SAC	Mediterranean salt meadows (Juncetalia maritimi) [1410], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Mudflats and sandflats not covered by seawater at low tide [1140]	F02.03.01, X, F03.01, J02.01.02, G01.01.02, G02.01, K03.06, D01.02, K02.03, E03, I01, G01.02, E01	Bait digging or collection, no threats or pressures, hunting, reclamation of land from sea, estuary or marsh, non-motorized nautical sports, golf course, antagonism with domestic animals, roads, motorways, eutrophication (natural), discharges, invasive non-native species, walking, horse-riding and non-motorised vehicles, urbanised areas, human habitation
000202	Howth Head SAC	European dry heaths [4030], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	I01, G05.04, D01.01, C01.01.01, X, A04.03, E01, J01.01, G01.02, C01	Invasive non-native species, vandalism, paths, tracks, cycling tracks, sand and gravel quarries, no threats or pressures, abandonment of pastoral systems lack of grazing, urbanised areas, human habitation, burning down, walking, horse-riding and non-motorised vehicles, mining and quarrying
000206	North Dublin Bay SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Embryonic shifting dunes [2110], Mediterranean salt meadows (Juncetalia maritimi) [1410], Mudflats and sandflats not covered by seawater at low tide [1140], Petalwort (Petalophyllum ralfsii) [1395], Humid dune slacks [2190], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310]	G01.01, E02, A04, G01.02, J01.01, H01.03, G02.01, K03.06, E03, H01.09, F02.03.01, G05.05, E01, I01, F02.03	Nautical sports, industrial or commercial areas, grazing, walking, horse-riding and non-motorised vehicles, burning down, other point source pollution to surface water, golf course, antagonism with domestic animals, discharges, diffuse pollution to surface waters due to other sources not listed, bait digging or collection, intensive maintenance of public parcs or cleaning of beaches, urbanised areas, human habitation, invasive non-native species, leisure fishing
000210	South Dublin Bay SAC	Embryonic shifting dunes [2110], Salicornia and other annuals colonising mud and sand [1310], Annual vegetation of drift lines [1210], Mudflats and sandflats not covered by seawater at low tide [1140]	H03, D01.01, G01.01.02, G01.01, E02, K02.02, F02.03.01, G01.02, K02, E03, E01, J02.01.02, M01, D01.02	Marine water pollution, paths, tracks, cycling tracks, non-motorized nautical sports, nautical sports, industrial or commercial areas, accumulation of organic material, bait digging or collection, walking, horse-riding and non-motorised vehicles, biocenotic evolution, succession, discharges, urbanised areas, human habitation, reclamation of land from sea, estuary or marsh, changes in abiotic conditions, roads, motorways

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
001209	Glenasmole Valley SAC Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Petrifying springs with tufa formation (Cratoneurion) [7220]		A03, A03.03, A08, A04, F02.03, B02.02, A04.02.01, C01.03, D01.03, H01.08, J02, A04.02.02, A04.02.03, D01, E01.02, H02.07, H01.05, B02.01.02, B01.01, B01.02, I01	Mowing or cutting of grassland, abandonment or lack of mowing, fertilisation, grazing, leisure fishing, forestry clearance, non intensive cattle grazing, peat extraction, car parcs and parking areas, diffuse pollution to surface waters due to household sewage and waste waters, human induced changes in hydraulic conditions, non intensive sheep grazing, non intensive horse grazing, roads, paths and railroads, discontinuous urbanisation, diffuse groundwater pollution due to non-sewered population, diffuse pollution to surface waters due to agricultural and forestry activities, forest replanting (non-native trees), forest planting on open ground (native trees), artificial planting on open ground (non-native trees), invasive non-native species
001398	Rye Water Valley/Carton SAC	Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>) [1016], Narrow-mouthed whorl snail (<i>Vertigo angustior</i>) [1014], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	A04, A08, D01.02, E01.01, E01.03, B, A10.01, J02.05.02	Grazing, fertilisation, roads, motorways, continuous urbanisation, dispersed habitation, sylviculture, forestry, removal of hedges and copses or scrub, modifying structures of inland water courses
002122	Wicklow Mountains SAC	Otter (Lutra lutra) [1355], Siliceous rocky slopes with chasmophytic vegetation [8220], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Northern Atlantic wet heaths with Erica tetralix [4010], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Alpine and Boreal heaths [4060], Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Calaminarian grasslands of the Violetalia calaminariae [6130], Calcareous rocky slopes with chasmophytic vegetation [8210], European dry heaths [4030]	G01.03.02, B02.05, G05.09, L05, A05.02, G05.06, G05.04, I01, F03, J01.01, E03.01, C01.03, B06, E01, A04, G05.01, K01.01, D01.01, G01.04, G05.07, G02.09, G01.02, G01, F03.02.02, K04.05, F04.02, G04.01	Off-road motorized driving, non- intensive timber production (leaving dead wood or old trees untouched), fences, fencing, collapse of terrain, landslide, stock feeding, tree surgery, felling for public safety, removal of roadside trees, vandalism, invasive non-native species, hunting and collection of wild animals (terrestrial), burning down, disposal of household or recreational facility waste, peat extraction, grazing in forests or woodland, urbanised areas, human habitation, grazing, trampling, overuse, erosion, paths, tracks, cycling tracks, mountaineering, rock climbing, speleology, missing or wrongly directed conservation measures, wildlife watching, walking, horseriding and non-motorised vehicles, outdoor sports and leisure activities, recreational activities, taking from nest (e.g. falcons), damage by herbivores (including game species), collection (fungi, lichen, berries etc.), military manoeuvres
003000	Rockabill to Dalkey Island SAC	Harbour porpoise (Phocoena phocoena) [1351], Reefs [1170]	F02.02, J02.11, H06.01, E03, J02.02, D02, X, D03.02	Professional active fishing, siltation rate changes, dumping, depositing of dredged deposits, noise nuisance, noise pollution, discharges, removal of sediments (mud), utility and service lines, no threats or pressures, shipping lanes

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
004006	North Bull Island SPA	Curlew (Numenius arquata) [A160], Dunlin (Calidris alpina) [A149], Black-headed Gull (Chroicocephalus ridibundus) [A179], Black-tailed Godwit (Limosa limosa) [A156], Teal (Anas crecca) [A052], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis squatarola) [A141], Shoveler (Anas clypeata) [A056], Knot (Calidris canutus) [A143], Light-bellied Brent Goose (Branta bernicla hrota) [A674], Bar-tailed Godwit (Limosa lapponica) [A157], Shelduck (Tadorna tadorna) [A048], Oystercatcher (Haematopus ostralegus) [A130], Pintail (Anas acuta) [A054], Turnstone (Arenaria interpres) [A169], Wetland and Waterbirds [A999], Redshank (Tringa totanus) [A162], Sanderling (Calidris alba) [A144]	G01.02, G01.01, E02, E01.04, G03, D01.02, G02.01, F02.03.01, E03, D01.05, E01.01, D03.02	Walking, horse-riding and non-motorised vehicles, nautical sports, industrial or commercial areas, other patterns of habitation, interpretative centres, roads, motorways, golf course, bait digging or collection, discharges, bridge, viaduct, continuous urbanisation, shipping lanes
004016	Baldoyle Bay SPA	Ringed Plover (Charadrius hiaticula) [A137], Shelduck (Tadorna tadorna) [A048], Grey Plover (Pluvialis squatarola) [A141], Light-bellied Brent Goose (Branta bernicla hrota) [A674], Golden Plover (Pluvialis apricaria) [A140], Wetland and Waterbirds [A999], Bar-tailed Godwit (Limosa lapponica) [A157]	G02.01, E01, I01, J02.01.02, K02.03, D01.02, A08, F02.03.01, F03.01, G01.02	Golf course, urbanised areas, human habitation, invasive non-native species, reclamation of land from sea, estuary or marsh, eutrophication (natural), roads, motorways, fertilisation, bait digging or collection, hunting, walking, horse-riding and non-motorised vehicles
004024	South Dublin Bay and Tolka Estuary SPA	Light-bellied Brent Goose (Branta bernicla hrota) [A674], Oystercatcher (Haematopus ostralegus) [A130], Grey Plover (Pluvialis squatarola) [A141], Knot (Calidris canutus) [A143], Roseate Tern (Sterna dougallii) [A192], Sanderling (Calidris alba) [A144], Redshank (Tringa totanus) [A162], Ringed Plover (Charadrius hiaticula) [A137], Bar-tailed Godwit (Limosa lapponica) [A157], Black-headed Gull (Chroicocephalus ridibundus) [A179], Wetland and Waterbirds [A999], Arctic tern (Sterna paradisaea) [A194], Common tern (Sterna hirundo) [A193], Dunlin (Calidris alpina) [A149]	J02.01.02, D01.02, E03, F02.03, G01.01, K02.03, F02.03.01, E01, G01.02, E02	Reclamation of land from sea, estuary or marsh, roads, motorways, discharges, leisure fishing, nautical sports, eutrophication (natural), bait digging or collection, urbanised areas, human habitation, walking, horse-riding and non-motorised vehicles, industrial or commercial areas
004040	Wicklow Mountains SPA	Merlin (Falco columbarius) [A098], Peregrine falcon (Falco peregrinus) [A103]	G01.02, D01.01, G03, A04, C01.03, B	Walking, horse-riding and non-motorised vehicles, paths, tracks, cycling tracks, interpretative centres, grazing, peat extraction, sylviculture, forestry
004236	North-West Irish	Shag (<i>Phalacrocorax aristotelis</i>) [A018], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Kittiwake (<i>Rissa</i>	N/A	N/A

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
	Sea cSPA	tridactyla) [A188], Great Black-backed Gull (Larus marinus) [A187], Great Northern Diver (Gavia immer) [A003], Manx Shearwater (Puffinus puffinus) [A013], Puffin (Fratercula arctica) [A204], Razorbill (Alca torda) [A200], Common Scoter (Melanitta nigra) [A065], Little Gull (Larus minutus) [A177], Cormorant (Phalacrocorax carbo) [A017], Guillemot (Uria aalge) [A199], Herring Gull (Larus argentatus) [A184], Arctic Tern (Sterna paradisaea) [A194], Lesser Black-backed Gull (Larus fuscus) [A183], Red-throated Diver (Gavia stellata) [A001], Common Gull (Larus canus) [A182], Fulmar (Fulmarus glacialis) [A009], Little Tern (Sterna albifrons) [A195], Roseate Tern (Sterna dougallii) [A192], Common Tern (Sterna hirundo) [A193]		

Appendix II Further information on the Qualifying Interests of SACs that have undergone assessment

Qualifying Interests of SACs that have undergone assessment including summaries of current threats and sensitivities

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[1014]	Narrow- mouthed Whorl Snail (<i>Vertigo</i> angustior)	Pressures facing this species are associated with land abandonment, under-grazing and the creation of tourism and leisure infrastructure such as caravan sites and golf courses.	A06, A10, F05, F07	Abandonment of grassland management (e.g., cessation of grazing or of mowing), extensive grazing or under grazing by livestock, creation or development of sports, tourism and leisure infrastructure (outside the urban or recreational areas), sports, tourism and leisure activities	Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
[1016]	Desmoulin's Whorl Snail (<i>Vertigo</i> <i>moulinsiana</i>)	The main pressures are associated with natural succession resulting in species composition change and drying out of the habitat.	systems (all except grassland), extensive grazing or under grazing by livestock, abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization), natural succession resulting in species		Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
[1140]	Mudflats and sandflats not covered by seawater at low tide	by pollution from agricultural, forestry and vastewater sources, as well as impacts associated recreational activities and structures generating marine pollution (exception) was tewater sources, as well as impacts associated marine macro- and micro- particular pollution, marine aquaculture		recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine aquaculture	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
[1170]	Reefs	The main pressures on reefs come from fishing methods that damage the seafloor.	G01, G03	Marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species, marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats	Sensitive to disturbance and pollution.
[1210]	Annual vegetation of drift lines	Most of the pressures on drift lines are associated with activities such as recreation and coastal defences, which can interfere with sediment dynamics.	C01, F01, F06, F07, F08	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions), development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning, sports, tourism and leisure	Overgrazing and erosion. Changes in management.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
				activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures)	
[1230]	Vegetated sea cliffs of the Atlantic and Baltic coasts	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change.	C01, E01, F07, F08, I02, N03, N04	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), increases or changes in precipitation due to climate change, sea-level and wave exposure changes due to climate change	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.
[1310]	Salicornia and other annuals colonising mud and sand	Pressures on Salicornia mud are caused by alien species and overgrazing by livestock	A09, I02	Intensive grazing or overgrazing by livestock, other invasive alien species (other than species of union concern)	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
[1330]	meadows (Glauco- Puccinellietalia maritimae) agriculture, including ecologically unstable grazing regimes and land reclamation, and the invasive nonnative species common cord-grass (Spartina anglica). FO7, F08, I02 flow or physical alternation of water bodies for agriculture (exclud development and operation of dams), agriculture activities not refeabove, sports, tourism and leisure activities, modification of coastlestuary and coastal conditions for development, use and protection residential, commercial, industrial and recreational infrastructure activities not refeabove, sports, tourism and leisure activities not refeabove, sports, tourism and coastal conditions for development, use and protection residential.		Intensive grazing or overgrazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern)	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.	
[1351]	Harbour Porpoise (<i>Phocoena</i> <i>phocoena</i>)	Pressures acting on this species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal by fisheries.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Sensitive to disturbance, prey availability and pollution.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[1355]	Otter (Lutra lutra)	There are no pressures facing this species	Xxp, Xxt	No pressures, no threats	Surface and marine water dependent. Moderately sensitive to hydrological change. Sensitivity to pollution.
[1395]	Petalwort (Petalophyllum ralfsii)	There are no pressures facing this species.	Xxp, Xxt	No pressures, no threats	None identified.
[1410]	Mediterranean salt meadows (Juncetalia maritimi)	Most of the pressures on Mediterranean salt meadows are associated with agriculture, including overgrazing, under-grazing and land reclamation.	A09, A10, A33, A36	Intensive grazing or overgrazing by livestock, extensive grazing or undergrazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
[2110]	Embryonic shifting dunes	The majority of pressures on this habitat are associated with recreation and coastal defences, which can interfere with sediment dynamics.		Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), shipping lanes, ferry lanes and anchorage infrastructure (e.g., canalisation, dredging), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions), development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization), natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Overgrazing, and erosion. Changes in management.
[2120]	Shifting dunes along the shoreline with white dunes	Most of the pressures on marram dunes are caused by the interference on sediment dynamics due to recreation and coastal defences.	E01, E03, F01, F06, F07, F08, I02, L01	Roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), shipping lanes, ferry lanes and anchorage infrastructure (e.g., canalisation, dredging), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of	Overgrazing, and erosion. Changes in management.

EU Code	Qualifying Article 17 Report Summary - Threats and Pressures Interests		Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
	(Ammophila arenaria)			coastline, estuary and coastal conditions), development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization)	
[2130]	Fixed coastal dunes with herbaceous vegetation (grey dunes)	recreation and ecologically unsuitable grazing practices. FO7, FO8, IO2, LO2 drainage and burning), interpretation extensive grazing or under activities, modification of concept development, use and protogram than species of union concept composition change (other		Conversion from one type of agricultural land use to another (excluding drainage and burning), intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Overgrazing, and erosion. Changes in management.
[2190]	Humid dune slacks	Pressures on the habitat come from a number of sources. Including agricultural fertilisers, sports and leisure activities (e.g., walking, off-road driving and golf courses) and drainage. Succession to scrub is also a problem, particularly where it is linked to desiccation of the slack.	agricultural land, sports, tourism and leisure activities, other invasive alien species (other than species of union concern), natural succession resulting in species composition change (other than by direct changes of agricultural problem, particularly where it is linked to		Overgrazing, and erosion. Changes in management. Sensitive to hydrological change.
[3110]	Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	This habitat is under significant pressure from eutrophication, and from drainage and other damage to peatland. Damage to peatland can result in hydrological changes in lakes, increased organic matter, water colour and turbidity, changes in sediment characteristics, acidification and enrichment.	A26, A31, B23, B27, C05, F12	Agricultural activities generating diffuse pollution to surface or ground waters, drainage for use as agricultural land, forestry activities generating pollution to surface or ground waters, modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams), peat extraction, discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water	Surface dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
[3160]	Natural	The pressures on this habitat are associated with	A26, A31, B23,	Agricultural activities generating diffuse pollution to surface or ground	Surface and groundwater

EU Code	Qualifying Interests Article 17 Report Summary - Threats and Pressures Codes		Known Threats and Pressures	Sensitivity of Qualifying Interests	
	dystrophic lakes and ponds	pollution from agricultural and forestry activities and also from drainage.	B27, C05, D08	waters, drainage for use as agricultural land, forestry activities generating pollution to surface or ground waters, modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams), peat extraction, energy production and transmission activities generating pollution to surface or ground waters	dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution
[4010]	Northern Atlantic wet heaths with Erica tetralix	Overgrazing, burning, wind farm development and erosion are the main pressures associated with this habitat, along with nitrogen deposition from agricultural activities that generate air pollution.	B01, D01, L01, agricultural activities generating air pollution, conversion to forest from other land uses, or afforestation (excluding drainage), wind, wave and tidal power, including infrastructure, abiotic natural processes (e.g., erosion,		Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
[4030]	European dry heaths	A number of significant pressures were recorded for this habitat in the current reporting period, particularly overgrazing by sheep and burning for agriculture with afforestation and wind farms also being recognised as pressures.	A09, A11, B01, D01, N01, N02		
[4060]	Alpine and Boreal heaths	Overgrazing by livestock, tourism (hill walking) and agricultural activities that cause air pollution are considered significant pressures for this habitat.	A09, A27, F07, N01, N02		
[6130]	Calaminarian grasslands of the Murawy galmanowa (Violetalia calaminariae)	Pressures on this habitat are associated with abiotic natural processes (leaching of metals) and succession, as well as impacts from recreational activities (walking/hiking).	F07, L01, L02	Sports, tourism and leisure activities, abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization), natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[6210]	Semi-natural dry grasslands and scrubland	The significant pressures related to this habitat are mainly associated with agricultural intensification causing loss of species-rich communities, or	A02, A09, A10, C01, I02, I04	Conversion from one type of agricultural land use to another (excluding drainage and burning), intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, extraction of minerals (e.g.,	Changes in management such as grazing regime. Changes in nutrient or

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
	facies on calcareous substrates (Festuco- Brometalia) * important orchid sites)	abandonment of farmland resulting in succession to scrub.		rock, metal ores, gravel, sand, shell), other invasive alien species (other than species of union concern), problematic native species	base status. Changes to vegetation composition. Introduction of alien species.
[6230]	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	encroachment and succession.		Problematic native species, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[6410]	Molinia meadows on calcareous, peaty or clayey- silt-laden soils (Molinion caeruleae)	The main pressures on the habitat are associated with agricultural intensification (e.g., land drainage, fertiliser application), under-grazing and forestry.	A02, A06, A10, A14, A31, B01	Conversion from one type of agricultural land use to another (excluding drainage and burning), abandonment of grassland management (e.g., cessation of grazing or of mowing), extensive grazing or under grazing by livestock, livestock farming (without grazing), drainage for use as agricultural land, conversion to forest from other land uses, or afforestation (excluding drainage)	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[7130]	Blanket bogs (* if active bog)	The main pressures on blanket bogs are overgrazing, burning, afforestation, peat extraction, and agricultural activities causing nitrogen deposition. Erosion, drainage and wind farm construction are also pressures relating to this habitat.	A09, A11, A27, B01, C05, D01, K02, L01, N01, N02	Intensive grazing or overgrazing by livestock, burning for agriculture, agricultural activities generating air pollution, conversion to forest from other land uses, or afforestation (excluding drainage), peat extraction, wind, wave and tidal power, including infrastructure, drainage, abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization), temperature changes (e.g., rise of temperature & extremes) due to climate change	Surface water interactions. Drainage and land use management are the key things.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[7220]	Petrifying springs with tufa formation (Cratoneurion)	drainage, pollution to ground and surface waters, recreational activities, infrastructure, overgrazing and abandonment of grassland management. FO7, H08, J01, K02, K04, L02 railroads and related infrastr tourism and leisure activities mentioned above (dumping, roosts (e.g., caving)), mixed s (limnic and terrestrial), drain succession resulting in species		Abandonment of grassland management (e.g., cessation of grazing or of mowing), extensive grazing or under grazing by livestock, roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, other human intrusions and disturbance not mentioned above (dumping, accidental and deliberate disturbance of bat roosts (e.g., caving)), mixed source pollution to surface and ground waters (limnic and terrestrial), drainage, modification of hydrological flow, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
[8110]	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	The main pressures on siliceous scree come from overgrazing, under-grazing and succession.	A09, A10, L02	Intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Erosion, overgrazing and recreation.
[8210]	Calcareous rocky slopes with chasmophytic vegetation	The majority of pressures related to this habitat are associated with overgrazing and the non-native invasive species New Zealand willowherb (<i>Epilobium brunnescens</i>).	A09, A27, I02	Intensive grazing or overgrazing by livestock, agricultural activities generating air pollution, other invasive alien species (other than species of union concern)	Erosion, overgrazing and recreation.
[8220]	Siliceous rocky slopes with chasmophytic vegetation	Pressure on this habitat is associated with the non- native invasive species New Zealand willowherb (Epilobium brunnescens).	102	Other invasive alien species (other than species of union concern)	Erosion, overgrazing and recreation.
[91A0]	Old sessile oak woods with Ilex and Blechnum in the British Isles	The significant pressure facing this habitat are associated with invasive non-native species such as <i>Rhododendron ponticum</i> , cherry laurel (<i>Prunus laurocerasus</i>) and beech (<i>Fagus sylvatica</i>) and overgrazing by deer.	A09, B09, I02, I04, M07	Intensive grazing or overgrazing by livestock, clear-cutting, removal of all trees, other invasive alien species (other than species of union concern), problematic native species, storm, cyclone	Changes in management. Changes in nutrient or base status. Introduction of alien species.

Appendix III Further information on the Special Conservation Interests of SPAs that have undergone assessment

Special Conservation Interests and Vulnerabilities of SPAs that have undergone assessment

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A003	Common Loon	Gavia immer	C03, F02, G01, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution
A009	Northern Fulmar	Fulmarus glacialis	C03, F02	Renewable abiotic energy use, fishing and harvesting aquatic resources
A013	Manx Shearwater	Puffinus puffinus	C03, H03, I01	Renewable abiotic energy use, marine water pollution, invasive non-native species
A017	Cormorant	Phalacrocorax carbo carbo	C03, F02, F03, G01, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, marine water pollution
A018	Shag	Phalacrocorax aristotelis	C03, H03	Renewable abiotic energy use, marine water pollution
A048	Common Shelduck	Tadorna tadorna	F01, F02, G01, H03, M01	Marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A054	Northern Pintail	Anas acuta	C03, F01, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, human induced changes in hydraulic conditions
A056	Northern Shoveler	Anas clypeata	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution
A067	Common Goldeneye	Bucephala clangula	C03, F01, F03, G01, H01, H03, H07, M02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, changes in biotic conditions
A069	Red-Breasted	Mergus serrator	C03, F01, F02, G01,	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources,

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
	Merganser		H03	outdoor sports and leisure activities, recreational activities, marine water pollution
A098	Merlin	Falco columbarius	A02, B01, B02, C03, M02	Modification of cultivation practices, forest planting on open ground, forest and plantation management & use, renewable abiotic energy use, changes in biotic conditions
A130	Eurasian Oystercatcher	Haematopus ostralegus	C03, F01, F02, G01, H03, J02	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions
A137	Common Ringed Plover	Charadrius hiaticula	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A140	European Golden Plover	Pluvialis apricaria	A02, A04, B01, C01, C03, F01, G01, H03, J01, K03, M02	Modification of cultivation practices, grazing, forest planting on open ground, mining and quarrying, renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, fire and fire suppression, interspecific faunal relations, changes in biotic conditions
A141	Grey Plover	Pluvialis squatarola	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A143	Red Knot	Calidris canutus	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A144	Sanderling	Calidris alba	C03, F01, G01, H03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A149	Dunlin	Calidris alpina	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A157	Bar-Tailed Godwit	Limosa lapponica	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A162	Common	Tringa totanus	C03, F01, F02, G01,	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources,

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
	Redhank		H03, J02, J03, M01	outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A169	Ruddy Turnstone	Arenaria interpres	C03, F01, G01, H03, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A177	Little Gull	Larus minutus	Xxp/Xxt	No threats and pressures identified by the npws
A179	Black-Headed Gull	Larus ridibundus	A04, C03, F02, H03, J03, M01	Grazing, renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A182	Common Gull	Larus canus	A04, C03, F02, H03, J03, M01	Grazing, renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A183	Lesser Black- Backed Gull	Larus fuscus	C03, F02, H03, J03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications
A184	European Herring Gull	Larus argentatus	C03, F02, H03, J03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications
A187	Great Black- Backed Gull	Larus marinus	Xxp/Xxt	No threats and pressures identified by the npws
A188	Black-Legged Kittiwake	Rissa tridactyla	C03, F02, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution
A192	Roseate Tern	Sterna dougallii dougallii	C03, D01, G01, I01	Renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, invasive non-native species
A193	Common Tern	Sterna hirundo	C03, D01, D03, G01,	Renewable abiotic energy use, roads, paths and railroads, shipping lanes, ports, marine constructions, outdoor sports and leisure activities, recreational activities, invasive non-native species
A194	Arctic Tern	Sterna paradisaea	C03, D01, G01, I01, M01	Renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, invasive non-native species, changes in abiotic conditions
A200	Razorbill	Alca torda	C03, H03	Renewable abiotic energy use, marine water pollution

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A204	Atlantic Puffin	Fratercula arctica	C03, H03, I01	Renewable abiotic energy use, marine water pollution, invasive non-native species
A674	Light-Bellied Brent Goose	Branta bernicla hrota	A02, A11, C03, D02, F01, G01, G05, H03, H07, I01, J03	Modification of cultivation practices, agriculture activities not referred to above, renewable abiotic energy use, utility and service lines, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, other human intrusions and disturbances, marine water pollution, other forms of pollution, invasive nonnative species, other ecosystem modifications

Appendix IV Conservation Objectives

Conservation objectives that have been considered by the assessment are included in the following NPWS/Department of Culture, Heritage and the Gaeltacht documents

NPWS (2012) Conservation Objectives for Baldoyle Bay SAC [IE0000199] Version 1.

NPWS (2016) Conservation Objectives for Howth Head SAC [IE0000202] Version 1.

NPWS (2013) Conservation Objectives for Malahide Estuary SAC [IE0000205] Version 1.

NPWS (2013) Conservation Objectives for North Dublin Bay SAC [IE0000206] Version 1.

NPWS (2013) Conservation Objectives for South Dublin Bay SAC [IE0000210] Version 1.

NPWS (2021) Conservation Objectives for Glenasmole Valley SAC [IE0001209] Version 1.

NPWS (2021) Conservation Objectives for Rye Water Valley/Carton SAC [IE0001398] Version 1.

NPWS (2017) Conservation Objectives for Wicklow Mountains SAC [IE0002122] Version 1.

NPWS (2013) Conservation Objectives for Rockabill to Dalkey Island SAC [IE0003000] Version 1.

NPWS (2015) Conservation Objectives for North Bull Island SPA [IE0004006] Version 1.

NPWS (2013) Conservation Objectives for Baldoyle Bay SPA [IE0004016] Version 1.

NPWS (2015) Conservation Objectives for South Dublin Bay and River Tolka Estuary SPA [IE0004024] Version 1.

NPWS (2013) Conservation Objectives for Malahide Estuary SPA [IE0004025] Version 1.

NPWS (2022) First Order Site-specific Conservation Objectives for Wicklow Mountains SPA

[IE0004040] Version 1.

Appendix V Author Details

Lead Author - Callum O'Regan is an ecologist who holds a B.Sc. degree in Zoology from University College Cork and obtained a Master's degree in Conservation Behaviour from Galway-Mayo Institute of Technology in 2021. Callum has skills in data management and analysis, report writing and mapping. Callum has also worked on the fieldwork for and preparation of a number of reports including Ecological Impact Assessments (EcIAs) and Appropriate Assessment Screenings for private and public projects of various sizes and complexities.

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

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

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