

Appropriate Assessment Screening Report

for the proposed

Beaty's Avenue to Herbert Park Rapid Deployment Scheme

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

for: The National Transport Authority Cycling Design Office

on behalf of: Dublin City Council

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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 Scheme	5
2.1. Receiving Environment Overview	5
2.2. The Proposed Scheme	5
3. Screening for Appropriate Assessment	10
3.1. Introduction	10
3.2. Identification of relevant European sites	10
3.3. Assessment criteria	15
3.3.1. Is the development necessary to the management of European sites?.....	15
3.3.2. Elements of the proposed scheme with potential to give rise to effects	15
3.3.3. Identification of potential effects and screening of sites.....	16
3.4. Characterising potential significant effects	16
3.4.1. Types of potential Effects.....	18
3.5. Other plans and projects	37
4. Conclusion	44

Appendices

Appendix I – Background information on European sites

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

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

Appendix IV – Conservation Objectives

Appendix V – Competency of Authors

1. Introduction

1.1. Background

CAAS has been appointed by the National Transportation Authority's Cycling Design Office (CDO), on behalf of Dublin City Council, to carry out an Appropriate Assessment (AA) screening of the the proposed Beaty's Avenue to Herbert Park Rapid Deployment Scheme (the proposed scheme). 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 scheme. 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 scheme 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 scheme 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:

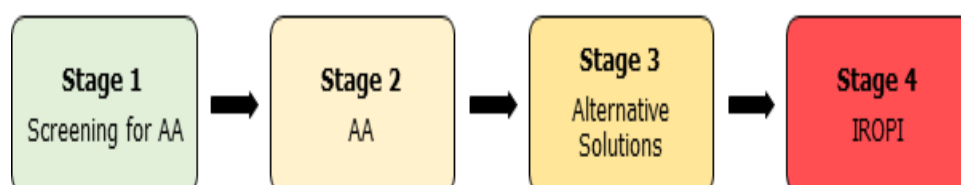
'A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species' 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 scheme, comprised the following elements:

- Identification of European sites within 15km¹ of the subject lands;
- Identification of pathways for effects from the site to European sites greater than 15km from the subject lands (if relevant²);
- Review of the NPWS site synopses and conservation objectives for European sites within

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

² this is not relevant where no hydrological connectivity or other significant ecological pathways occur

- 15km and for which potential pathways from the proposed site have been identified; and
- Examination of available information on protected species.

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 scheme;
- 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 scheme 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 scheme.

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, 2021;*
- *European Commission, Directorate-General for Environment, Guidance document on assessment of plans and projects in relation to Natura 2000 sites: a summary, Publications Office of the European Union, 2022;*
- *Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC", European Commission, 2000; and*
- *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 sensitivities of these key ecological receptors

2. Description of Proposed Scheme

2.1. Receiving Environment Overview

The proposed scheme site is located between Beauty's Avenue and Herbert Park along the Dodder River. The proposed scheme area is within a highly urbanised area and thus is surrounded by a variety of commercial structures, residential structures and small areas of amenity grassland along length of the proposed scheme area. In a wider landscape context, the site is situated in a highly urban area within Dublin City (Figure 2.1). The Dodder River (Figure 2.2) flows east along the proposed scheme area into Dublin Bay via the River Liffey approximately 8km from the proposed scheme area. The closest designated European site to the proposed scheme is South Dublin Bay SAC (000210) at 1.16km in distance. As mentioned above, the proposed scheme lies within an intensive urban area and as a result, there are few areas of ecological value surrounding the site or along the proposed scheme area itself, other than the Dodder River itself.

2.2. The Proposed Scheme

The proposed scheme is to provide for a cycle route between Beauty's Avenue and Herbert Park. The proposed route is approximately 500m in length and will mainly involve conversion of an existing vehicular traffic lane into a two-way cycle lane, creation of pedestrian priority zones and a toucan crossing of Merrion Road. The route is currently used and operated as a roadway. It will continue to be operated and maintained as a public transport route in an urban area.

Details of the proposed scheme are provided below:

- The scheme commences at the junction of Herbert Cottages tying into the existing facility that runs adjacent to the River Dodder to the north
- A mixed street treatment is proposed for the length of Beauty's Avenue
- At Ballsbridge, a pedestrian priority zone is proposed either side of the junction with a toucan crossing to facilitate pedestrian and cycle movements north / south
- The toucan crossing matches the design intent of the Belfield / Blackrock to City Centre Busconnects Core Bus Corridor Scheme.
- The existing kerb lines either side of Anglesea Road are to be retained, with a 2-way protected cycle track proposed on the west side. It is proposed to remove one left hand turn lane and existing parking along Anglesea Road to facilitate.
- A pedestrian priority zone is proposed to facilitate an existing bus stop.
- The 2-way protected cycle lane continues to Herbert Park Lane where a raised table is proposed
- All existing boundaries along the scheme are to be retained
- Existing trees / vegetation along the route will be retained.

The scheme extent is approximately 0.79 hectares (ha).

The proposals are illustrated in Figures 2.3 to 2.5.

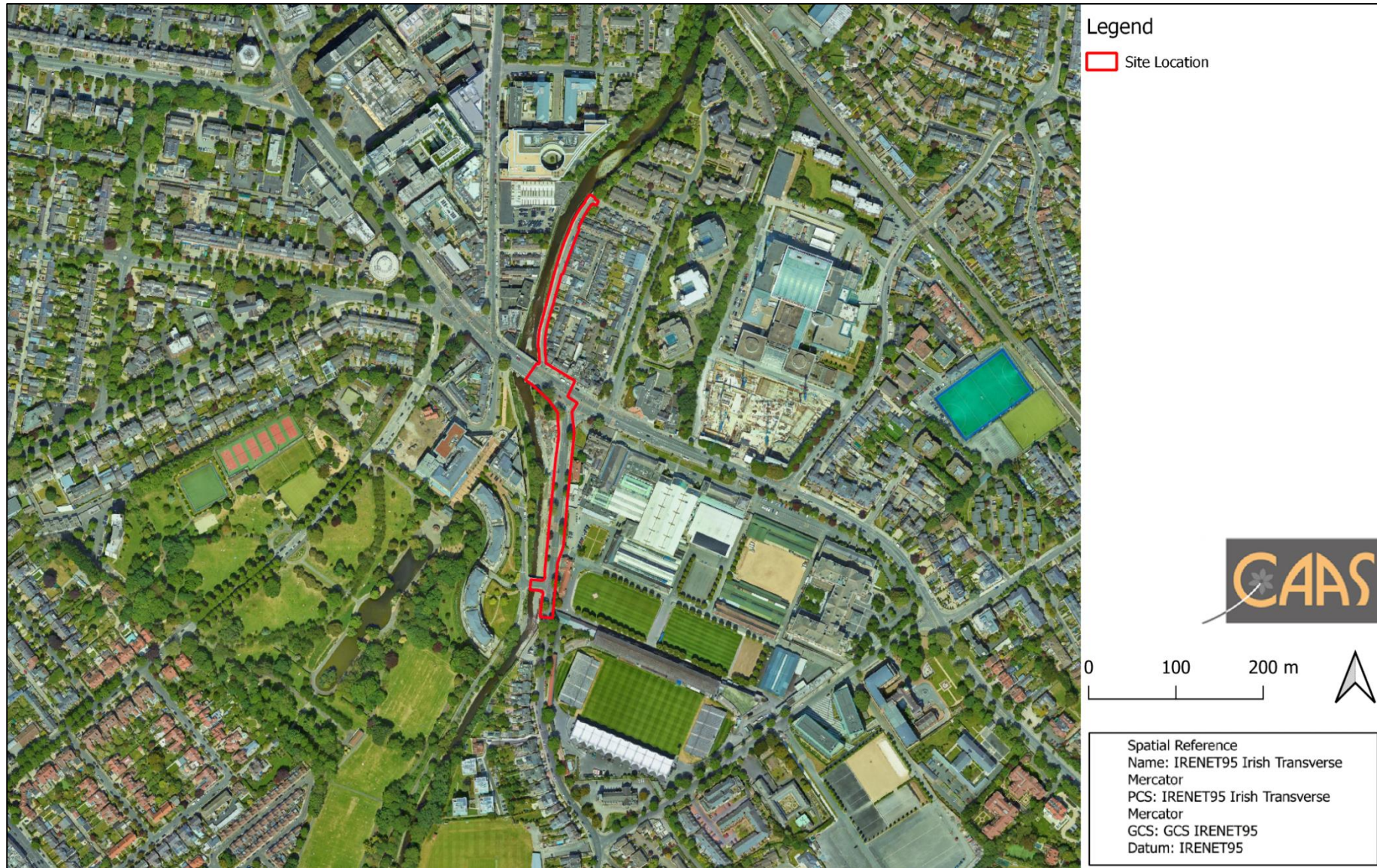


Figure 2.1. Location of the proposed scheme

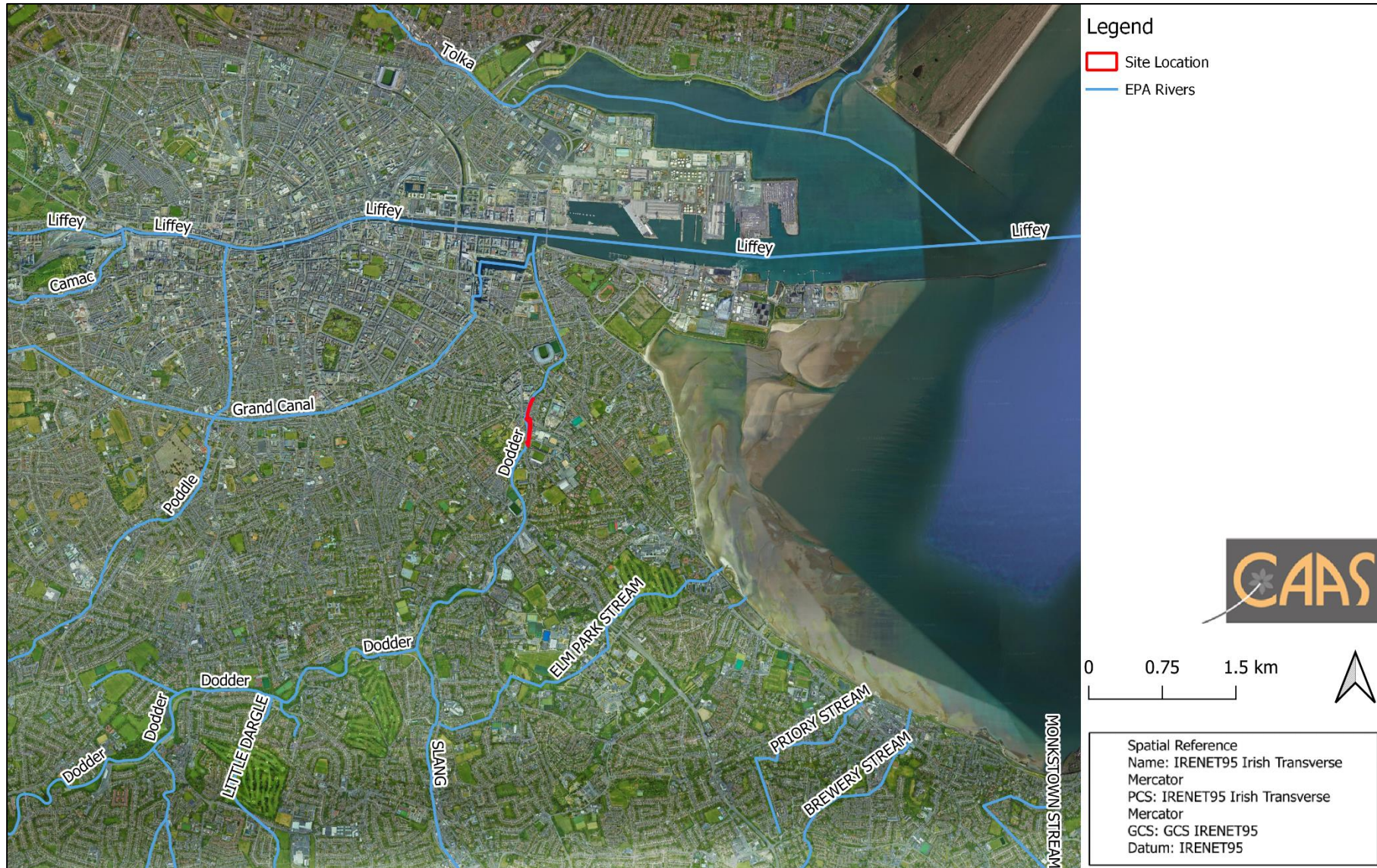


Figure 2.2. Location of EPA rivers relative to the proposed scheme

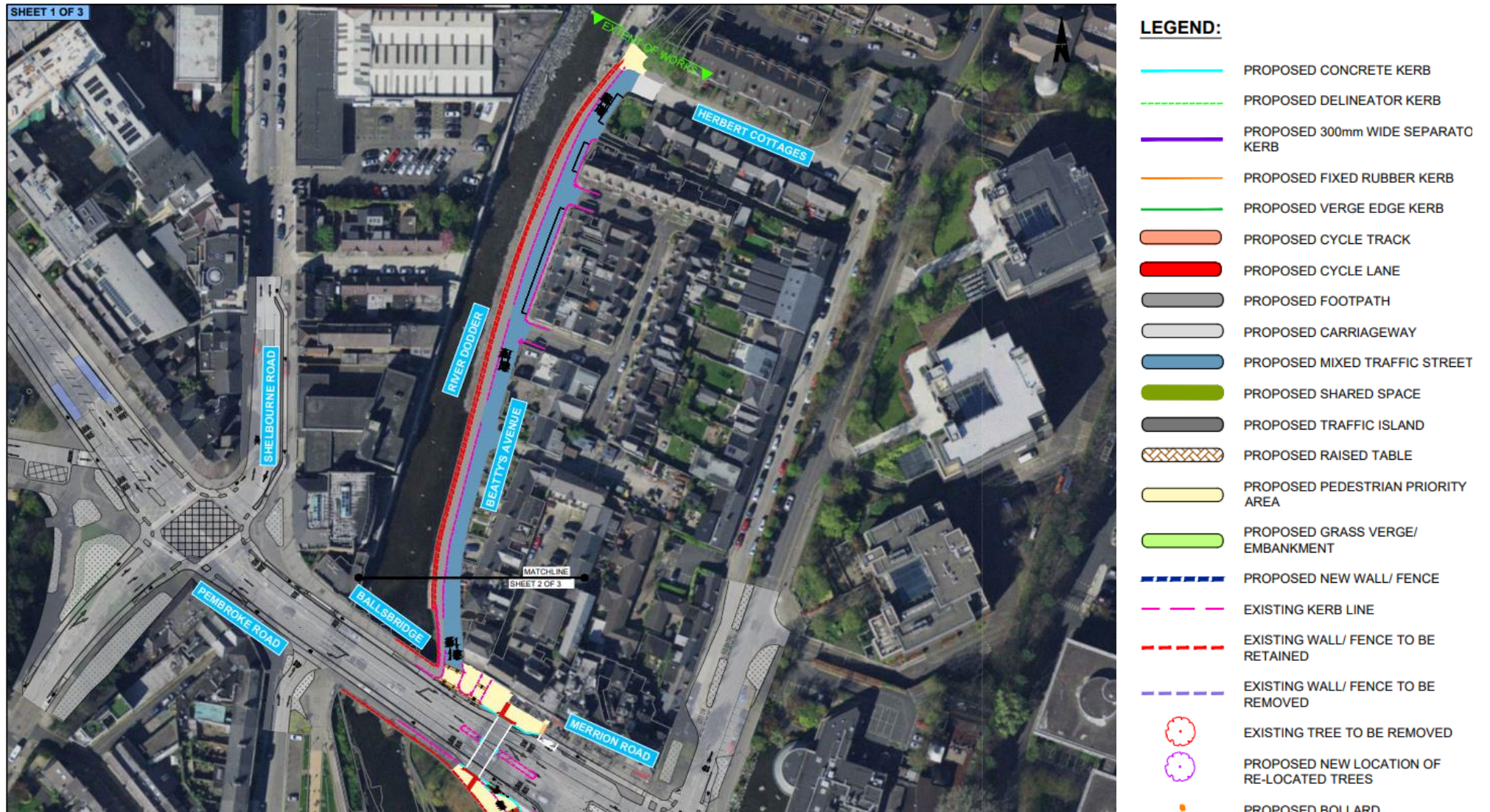


Figure 2.3. Beatty's Avenue to Herbert Park rapid deployment scheme map 1/3
 Source: Cycling Design Office. Full scaled version of the drawing is available separately

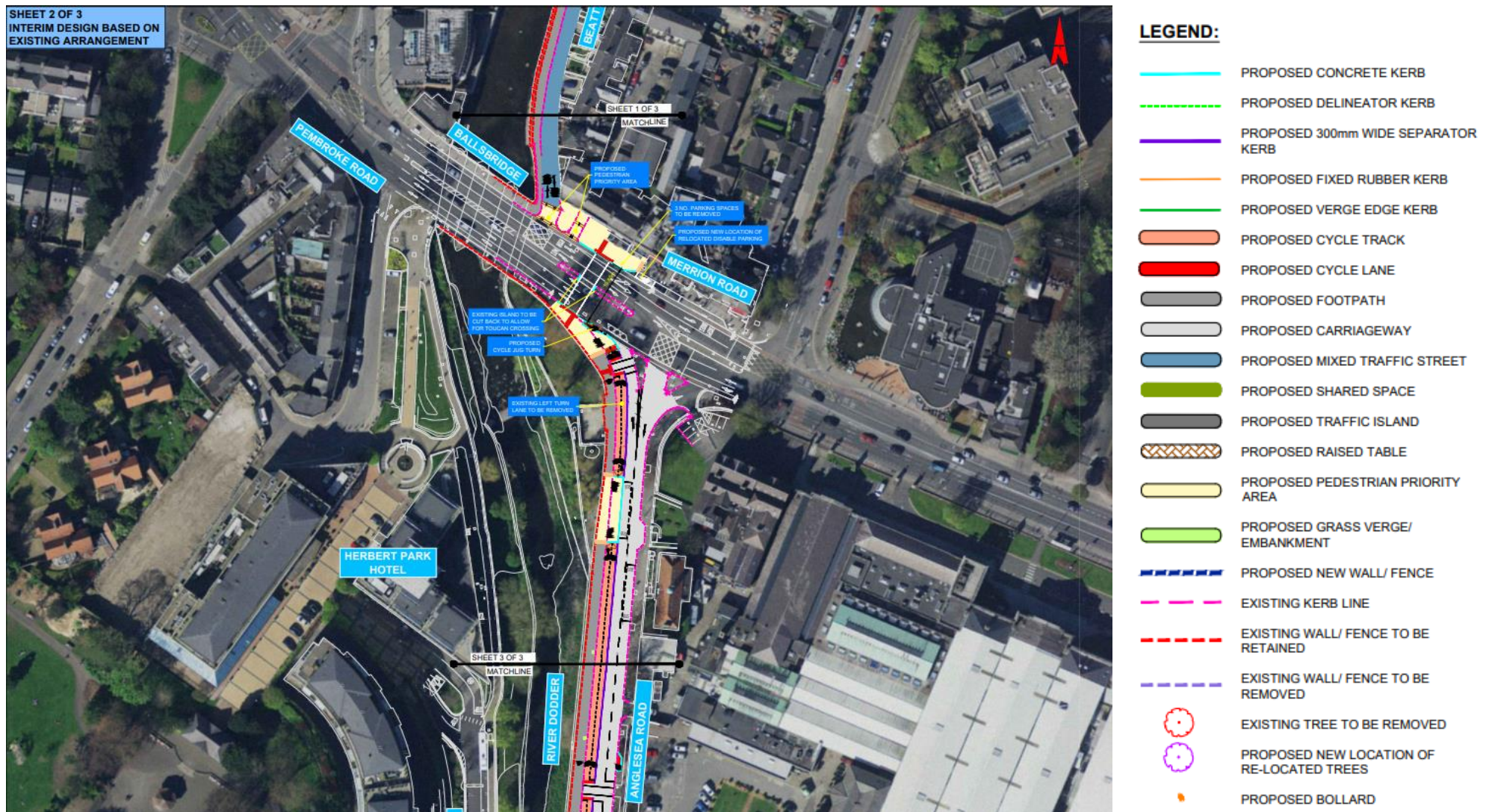


Figure 2.4. Beatty's Avenue to Herbert Park rapid deployment scheme map 2/3

Source: Cycling Design Office. Full scaled version of the drawing is available separately



Figure 2.5. Beatty's Avenue to Herbert Park rapid deployment scheme map 3/3

Source: Cycling Design Office. Full scaled version of the drawing is available separately

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 European site has been designated and afforded protection. SCIs are wetland habitats and bird species listed within Annexes I and II of the Birds Directive. It is also vital that the threats to the ecological / environmental conditions that are required to support QIs and SCIs 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

This section of the screening process describes the European sites which exist within the Zone of Influence (ZOI) of the site. An assessment of the sources of effects (see Section 3.3 below) identified that effects from the proposed scheme are likely to be localised – in the absence of hydrological

pathways. The Environment, Heritage and Local Government (2009) Guidance on AA recommends a 15km zone to be considered.

There are two key considerations when identifying ecological pathways - the first is the distance from which potential sources for effects can radiate known as the zone of influence (Zoi) and the second is the potential for sensitive receptors (QIs/SCIs) to interact with the Zoi which is a further pathway consideration zone (PCZ). It is understood that sites designated for vagile species are known to utilise isolated resources across the landscape could intersect with the localised zone of influence; however, beyond 15km potential effects to such species at this scale are not identified to be significant due to the broad home range available to these species and the availability of alternate resources.

Therefore, a radius of 2km has been adopted as the Zoi and a 15km radius was adopted as the PCZ for this AA - however, further considerations were given to hydrological pathways from the proposed scheme which extended beyond the 15km limit.

European sites identified to have ecological connectivity pathways for potential effects with the proposed scheme area are listed in Table 3.1 and illustrated in Figure 3.1 below. Details on the specific QIs and SCIs of each European site are also identified in the Appendix, as well as site-specific threats and vulnerabilities of each of the sites.

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 Synopses⁴; and
- NATURA 2000 Standard Data Forms⁴.

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 scheme against the QIs/SCIs of each site. The conservation objectives for each site have been taken into account throughout the assessment process.

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

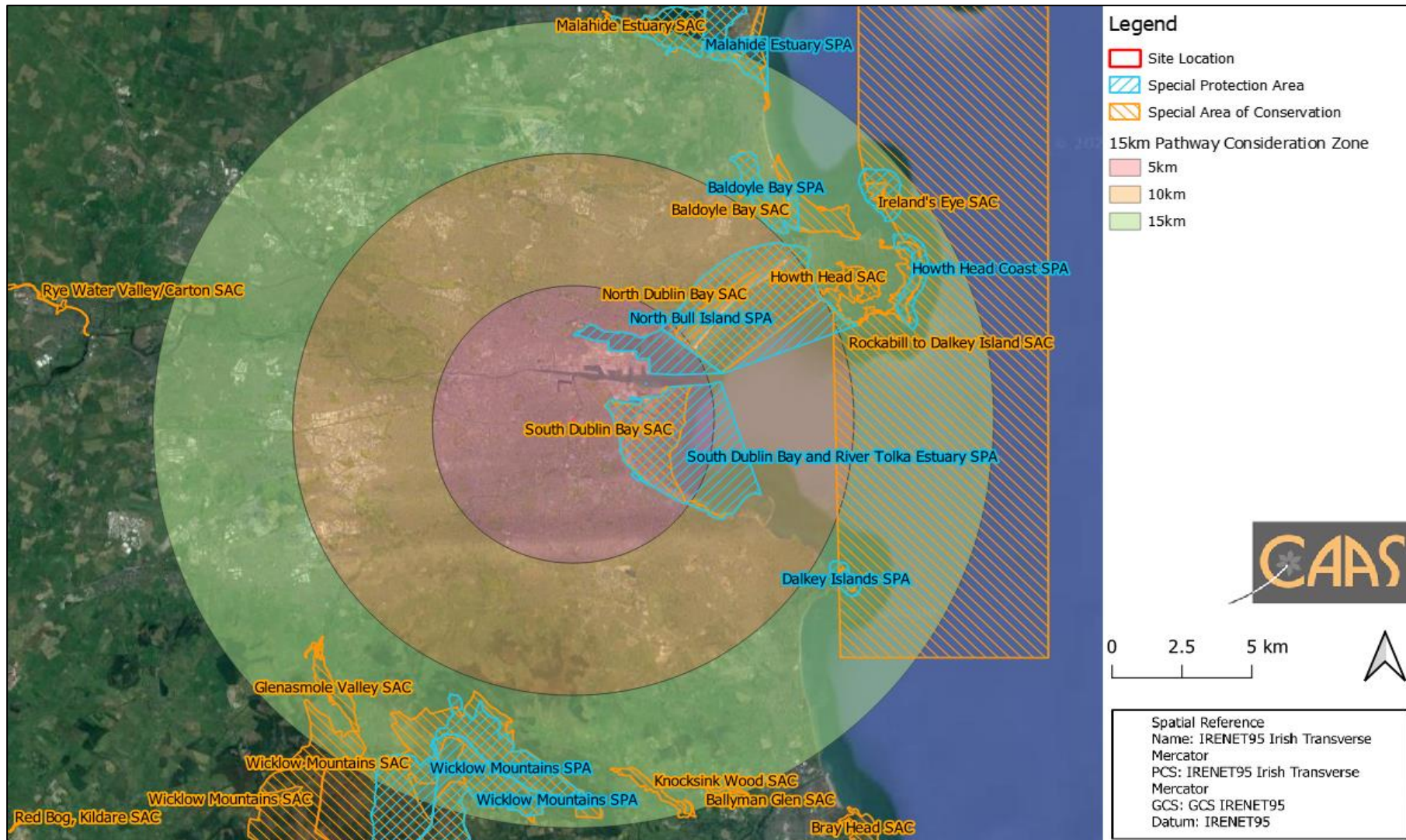


Figure 3.1 European sites within 15km of the proposed scheme boundary⁵

⁵ Source: NPWS (datasets downloaded 26th October 2022)

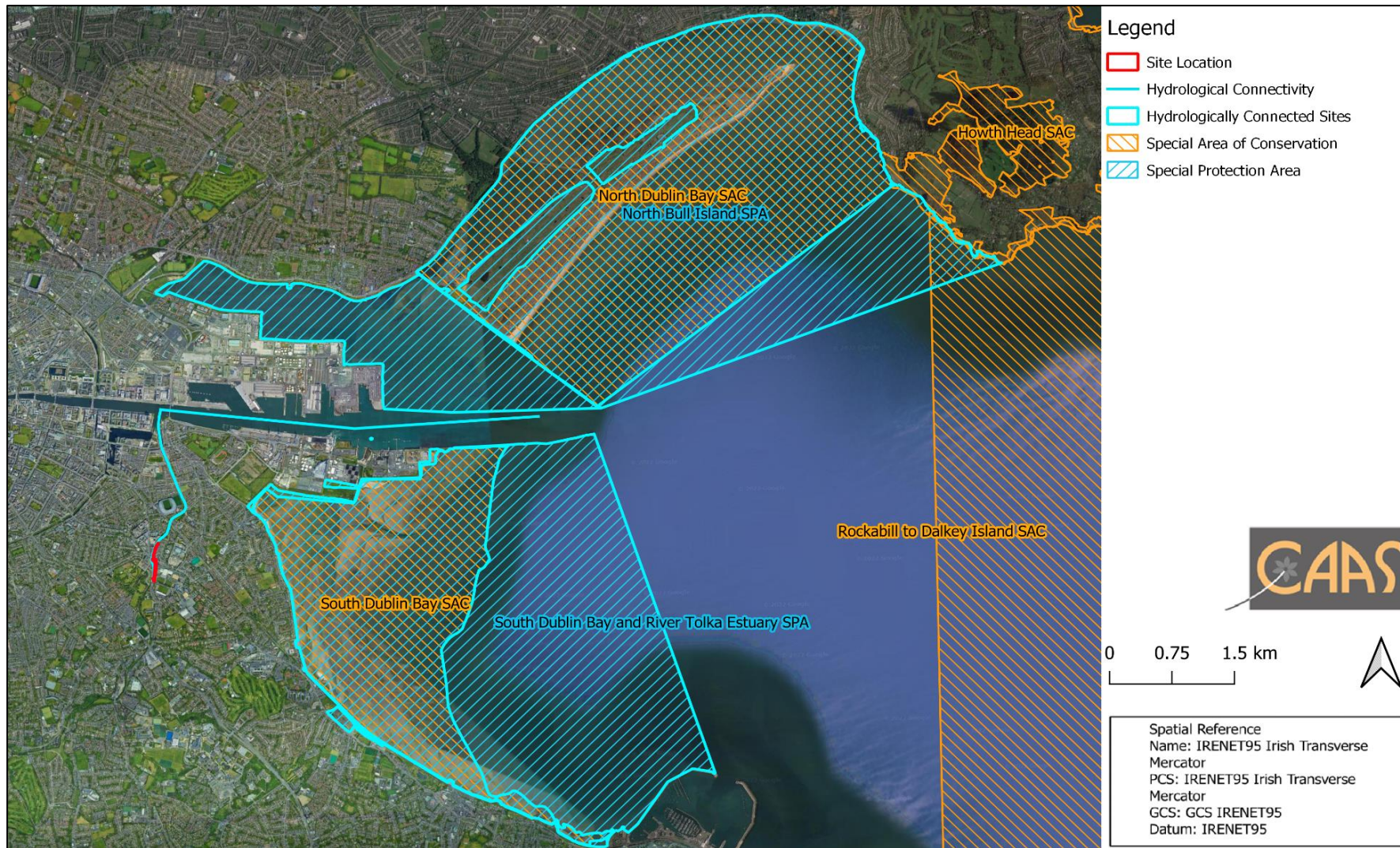


Figure 3.2 Hydrological connectivity to European sites beyond 15km of the proposed scheme boundary⁶

⁶ Source: NPWS Protected Sites and EPA River Routes (datasets downloaded 26th October 2022)

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 scheme is not the nature conservation management of the sites, but to implement a rapid deployment scheme, whose purpose is the upgrade of existing cycling, pedestrian and traffic calming infrastructure, between Beaty's Avenue to Herbert Park, Dublin City, and all associated site works. Therefore, the proposed scheme 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 scheme 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 scheme.

There will be no direct interaction with the Dodder River as a result of the proposed scheme's construction phase. However, there is potential for disturbance effects through construction and increased dust and construction surface run off during the construction phase.

Regarding the operational phase, the proposed scheme aims to improve the usage of the proposed scheme area for less congested and more sustainable modes of transport such as walking and cycling. As a result, there is expected to be increased pedestrian and cyclist traffic in the area throughout the operational phase. However, any effects from the operational phase of the proposed scheme are expected to be negligible as the usage will be unchanged. In addition, the proposed scheme is not likely to increase the number of road users overall, but rather encourage vehicular users to choose cycling or walking by improving infrastructure to enable safer journey by such means within the city. In the operational phase, no drainage system alterations will have occurred as a result of the proposed scheme, and there will be no change to hard surface area as a result of the proposed scheme, therefore surface water runoff and storm water drainage will present no potential effects during the operational phase.

Therefore, for the purposes of this assessment the proposed scheme is identified as having potential to cause only construction phase effects at a local scale.

The construction phase elements of the proposed scheme with potential to introduce sources for

effects to ecological processes are identified below:

- Disturbance effects through noise;
- Dust; and
- Surface water run-off from the construction phase elements of the proposed scheme.

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 scheme. 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 scheme and the potential effects they may cause on the sites were considered. The elements of the proposed scheme 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 scheme and a site;
- where a site is located at such a distance from proposed scheme 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 scheme.

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 guidance⁷ outlines the types of effects that may affect European sites. These include effects from the following activities:

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

The 2001 European Commission AA guidance outlines the following potential changes that may occur at a designated site, which may result in effects on the 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 scheme boundary and the closest European site is 1.16 km from the proposed scheme area. There were no Annex I habitats or supporting habitat for Annex II species identified on site. Therefore, there will be no effects posed regarding loss or reduction of habitat area of any European sites as a result of the proposed scheme.

Habitat or species fragmentation

The proposed scheme area is comprised of a majority of artificial hard surfaces, with a small number of intensively managed areas of amenity grassland patches and treelines along the proposed scheme. It is anticipated that no vegetation or trees will be removed to facilitate the implementation of the scheme. There may be a minor loss of amenity grassland patches consisting of kerb side area. These minor patches of grass are not sufficient to support any significant degree of SCI foraging habitat. Considering the site context, and the minor area of grassland potentially removed to facilitate a cycle way, this is considered to be negligible, with no potential to significantly affect ex-situ foraging of SCI species.

The area has been considered at a landscape scale with respect to connectivity and ecological corridors between European sites, and there are no functional pathways to European sites that will be interrupted by the proposed scheme.

No drainage system alterations will take place along the proposed area as a result of the proposed

⁷ 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

scheme, there will be no interaction with the Dodder River during the construction phase, and there will be no change to hard surface area as a result of the proposed scheme, therefore surface water runoff and storm water drainage will present no potential effects in the operational phase of the proposed scheme.

Regarding the construction phase, given the minor and localised nature of the proposed scheme works, the absence of any changes to drainage along the proposed scheme area, the implementation of best practice construction measures along the proposed scheme area, and the dilution factor involved for a small scale project – it is not foreseen that there is any potential for significant effects introduced regarding hydrological interactions as a result of the construction phase of the proposed scheme. In addition, there are no Annex I habitats or supporting habitat for Annex II species within the proposed scheme area. Therefore, there will be no effects posed to European sites in this regard.

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 1.16 km from the proposed scheme area. However, due to the small scale of the proposed scheme and the highly urbanised, heavily trafficked and developed nature of the proposed scheme area, disturbance effects due to noise or lighting etc. during the construction phase are not present as the SCI species in the nearby SPAs would already exhibit a degree of habituation to such effects.

The habitats present within the scheme area are not identified to be sufficient or capable of supporting ex-situ foraging for the SCI species of the SPAs identified; therefore, no effects are identified in this regard. The operational phase will be in keeping with the current level of noise, urban activity and use, with a slight decrease in vehicular use predicted due to the nature of the proposed scheme.

Any potential for effects from the operational phase of the proposed scheme due to changes in numbers of visitors to European sites are negligible, because the proposed scheme is not likely or intended to significantly increase the number of road users overall, but rather to encourage vehicular users to choose cycling or walking by improving infrastructure to enable safer journey by such means within the city.

Therefore, there are no potential sources for significant effects regarding disturbance to key species as a result of the proposed scheme.

Reduction in species density

There are no ecological corridors, apart from the Dodder River, between the proposed scheme area and any European site. There will be no interaction with the Dodder River as part of the proposed scheme works, and there is no potential for significant effects through construction run off or dust due to the small scale, localised nature of the proposed scheme and dilution factor involved.

There are no habitats identified on site of any ecological significance for European sites. In addition, there is no supporting habitat and/or substantial connectivity between the proposed scheme area and any European site. Therefore, there will be no reduction in species density of any of the QI or SCI species as a result of the proposed scheme.

Changes of indicators of conservation value

The proposed scheme area is 0.86 km from the closest European site. However, the proposed scheme is small and localised in scale, and the construction phase is temporary, and localised, and small in scale, with negligible potential for effects identified in this regard to European sites.

Indirect hydrological pathways to European designated sites have been identified for the construction phase via surface water drainage, and the Dodder River (which connects to Dublin Bay via the River Liffey). However, given the minor and localised nature of the proposed scheme works, the absence of any changes to drainage along the proposed scheme area, the implementation of best practice construction measures along the proposed route, and the dilution factor for a small-scale project, there is no potential for significant effects identified with regard to water quality during the construction phase. The proposed scheme will involve construction related dust and noise effects; however, the construction phase is localised and small in scale, and is in keeping with the highly urbanised nature of the proposed scheme area.

Regarding the operational phase, there are no potential sources for significant hydrological effects identified as there will be no changes to surface or storm water drainage along the proposed scheme area as a result of the proposed scheme. Similarly, there will be no change to hard surface area as a result of the proposed scheme, therefore surface and storm water runoff over hard surface present no potential for effects as a result of the proposed scheme.

Therefore, there are no sources for effects with pathways that will affect any conservation indicators related to European sites.

Climate change

The proposed scheme is not likely to cause any increase in greenhouse gas emissions during the operational phase. It is possible there will be a decrease in local emissions. The construction phase works are likely to cause increased localised temporary emissions; however, given the small scale of the proposed scheme and timescales involved, these are determined to be negligible. Such minor 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 in this assessment.

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

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
000210	South Dublin Bay SAC	1.16	Mudflats and sandflats not covered by seawater at low tide [1140], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Embryonic shifting dunes [2110]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to hydrological interactions, habitat disturbance, and direct land use management. This site is 1.16km from the proposed scheme. There are no sources for effect for direct land use management of the SAC as this scheme area is outside of the European site. There is an indirect hydrological pathway between the proposed scheme and the SAC through urban drainage, and the Dodder River and River Liffey.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area, and that the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>	No	No
004024	South Dublin Bay and River Tolka Estuary SPA	1.20	Roseate Tern (<i>Sterna dougallii</i>) [A192], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Common tern (<i>Sterna hirundo</i>) [A193], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Sanderling (<i>Calidris</i>	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to hydrological interactions, direct land use management and disturbance effects. This site is 1.20km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through urban drainage, and the Dodder River and the River Liffey.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{8,9}. These distances can vary due to factors</p>	No	No

⁸ 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.

⁹ 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.

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
			<i>alba</i>) [A144], Redshank (<i>Tringa totanus</i>) [A162], Dunlin (<i>Calidris alpina</i>) [A149], Arctic tern (<i>Sterna paradisaea</i>) [A194], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Knot (<i>Calidris canutus</i>) [A143], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]	<p>such as species and/or time of year^{10,11}. Given the distance between the proposed scheme area and the SPA there are is a pathway for disturbance effects identified in this regard. However, given that the SCI species in the identified SPA already exhibit a high degree of habituation to urban noise disturbance due to the SPAs close proximity to a highly industrialised area, and the small-scale nature of the construction phase of the proposed scheme, no potential effects have been identified in regard to noise disturbance effects.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local landscape characteristics and the availability of resources ensure that the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme. Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
004006	North Bull Island SPA	4.59	Dunlin (<i>Calidris alpina</i>) [A149], Turnstone (<i>Arenaria interpres</i>) [A169], Curlew	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to hydrological interactions, direct land use management and</p>	No	No

¹⁰ 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.

¹¹ 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-Combination Effects
			(<i>Numenius arquata</i>) [A160], Redshank (<i>Tringa totanus</i>) [A162], Pintail (<i>Anas acuta</i>) [A054], Shoveler (<i>Anas clypeata</i>) [A056], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Shelduck (<i>Tadorna tadorna</i>) [A048], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Teal (<i>Anas crecca</i>) [A052], Sanderling (<i>Calidris alba</i>) [A144], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143]	<p>disturbance effects. This site is 4.59km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA via the Dodder River and River Liffey.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{12,13}. These distances can vary due to factors such as species and/or time of year^{14,15}. Given the distance between the proposed scheme area and the SPA no pathways for potential effects have been identified in regard to noise disturbance effects.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local landscape characteristics and the availability of resources ensure that the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in this regard.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme. Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		

¹² 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.

¹³ 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.

¹⁴ 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.

¹⁵ 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-Combination Effects
000206	North Dublin Bay SAC	4.60	Embryonic shifting dunes [2110], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Petalwort (<i>Petalophyllum ralfsii</i>) [1395], Mudflats and sandflats not covered by seawater at low tide [1140], <i>Salicornia</i> and other annuals colonising mud and sand [1310], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>) [1330], Annual vegetation of drift lines [1210], Humid dune slacks [2190]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to direct land use management, habitat disturbance and hydrological interactions. This site is 4.60km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SAC through urban drainage, and the Dodder River and River Liffey.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area, and that the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>	No	No
003000	Rockabill to Dalkey Island SAC	9.33	Reefs [1170], Harbour porpoise (<i>Phocoena phocoena</i>) [1351]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to hydrological interactions, habitat disturbance and direct land use management. The site is 9.33km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SAC through the marine environment.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase,</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
				<p>no changes in drainage or hard surface area as a result of the proposed scheme, and that there is no direct link for visitors between this European site and the proposed scheme area, there are no sources with pathways for significant effects foreseen to European sites regarding habitat disturbance or hydrological interactions in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
000202	Howth Head SAC	9.86	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], European dry heaths [4030]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to direct land use management activities, habitat disturbance and hydrological interactions. This site is 9.86km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SAC through the marine environment.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase,</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area, and that the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>	No	No
000199	Baldoyle Bay SAC	10.06	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to hydrological interactions, habitat disturbance and direct land use management activities. This site is 10.06km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SAC through the marine environment.</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
			covered by seawater at low tide [1140]	<p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area, and that the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>		
004016	Baldoyle Bay SPA	10.06	Golden Plover (<i>Pluvialis apricaria</i>) [A140], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Shelduck (<i>Tadorna tadorna</i>) [A048], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 10.06km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through the marine environment.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{16,17}. These distances can vary due to factors such as species and/or time of year^{18,19}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local 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</p>	No	No

¹⁶ 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.

¹⁷ 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.

¹⁸ 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.

¹⁹ 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-Combination Effects
				<p>this regard.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme. Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
002122	Wicklow Mountains SAC	10.44	Blanket bogs * if active bog [7130], Alpine and Boreal heaths [4060], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130], European dry heaths [4030], Natural dystrophic lakes and ponds [3160], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed development area.</p> <p>The SAC is sensitive to habitat disturbance effects, direct land use management activities and hydrological interactions. This site is 10.44km from the proposed development. There are no sources for effect for direct land use management effects to SAC as this site is outside of the project boundary. There are also no hydrological pathways between the proposed scheme and the SAC.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
			- and submountain areas in Continental Europe [6230], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Siliceous rocky slopes with chasmophytic vegetation [8220], Otter (<i>Lutra lutra</i>) [1355], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calcareous rocky slopes with chasmophytic vegetation [8210]			
004172	Dalkey Islands SPA	10.49	Roseate tern (<i>Sterna dougallii</i>) [A192], Common tern (<i>Sterna hirundo</i>) [A193], Arctic tern (<i>Sterna paradisaea</i>) [A194]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area</p> <p>The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 10.49km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through the marine environment.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{20,21}. These distances can vary due to factors such as species and/or time of year^{22,23}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local landscape</p>	No	No

²⁰ 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.

²¹ 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.

²² 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.

²³ 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-Combination Effects
				<p>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.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme. Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
004040	Wicklow Mountains SPA	10.71	Peregrine falcon (<i>Falco peregrinus</i>) [A103], Merlin (<i>Falco columbarius</i>) [A098]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to disturbance effects and direct land use management activities. This site is 10.71km from the proposed scheme. There are no sources for effect for direct land use management of the SPA as this site is outside of the project boundary.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{24,25}. These distances can vary due to factors such as species and/or time of year^{26,27}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects</p>	No	No

²⁴ 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.

²⁵ 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.

²⁶ 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.

²⁷ 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-Combination Effects
				<p>identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local 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.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme.</p> <p>Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
001209	Glenasmole Valley SAC	11.83	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6410], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to habitat disturbance, direct land use management activities, groundwater and surface water interactions. This site is 11.83km from the proposed scheme. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary and there are no sources for effect for groundwater interactions due to the nature and scale of the proposed scheme and the lack of any substantial groundwater connectivity. There are also no surface hydrological pathways between the proposed scheme and the SAC.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
				European sites. Therefore, no further assessment is required.		
004113	Howth Head Coast SPA	12.24	Kittiwake (<i>Rissa tridactyla</i>) [A188]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 12.24km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through the marine environment.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{28,29}. These distances can vary due to factors such as species and/or time of year^{30,31}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local 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.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme.</p>	No	No

²⁸ 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.

²⁹ 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.

³⁰ 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.

³¹ 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-Combination Effects
				<p>Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		
000725	Knocksink Wood SAC	12.80	<p>Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>) [91E0]</p>	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area</p> <p>The SAC is sensitive to habitat disturbance, groundwater interactions, surface water interactions, and direct land use management activities.</p> <p>This site is 12.80m from the proposed scheme. 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 and there are no sources for effect for groundwater interactions due to the nature and scale of the proposed scheme and the lack of any substantial groundwater connectivity. There are also no surface hydrological pathways between the proposed scheme and the SAC.</p> <p>Regarding the operational phase, and considering the QIs of this SAC; the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>	No	No
004117	Ireland's Eye SPA	13.29	<p>Herring Gull (<i>Larus argentatus</i>) [A184], Guillemot (<i>Uria aalge</i>) [A199], Razorbill (<i>Alca torda</i>) [A200], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Kittiwake (<i>Rissa tridactyla</i>) [A188]</p>	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area</p> <p>The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 13.29km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through the marine environment.</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
				<p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{32,33}. These distances can vary due to factors such as species and/or time of year^{34,35}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed scheme; however, the local 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.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, in combination with significant dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; given there are no changes in drainage or hard surface area as a result of the proposed scheme, and that there is no direct link for visitors between this European site and the proposed scheme area, there are no sources with pathways for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>		
000205	Malahide Estuary SAC	13.47	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Salicornia and other annuals colonising mud and sand [1310], Shifting dunes along the shoreline	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to habitat disturbance, direct land use management activities and hydrological interactions. This site is 13.47km from the proposed scheme. There are no sources for effect for direct land use management of the SAC as this site is outside of</p>	No	No

³² 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.

³³ 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.

³⁴ 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.

³⁵ 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-Combination Effects
			with <i>Ammophila arenaria</i> - white dunes [2120], Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]	<p>the project boundary. There is an indirect hydrological pathway between the proposed scheme and the SAC through the marine environment.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase,</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area, and that the purpose of not to increase overall road use, but to convert vehicular road users to cycling or walking, there are no sources with pathways regarding habitat disturbance for significant effects foreseen in the operational phase of the proposed scheme to European sites.</p> <p>Therefore, no further assessment is required.</p>		
002193	Ireland's Eye SAC	13.49	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], Perennial vegetation of stony banks [1220]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to habitat disturbance, hydrological interactions and direct land use management activities. This site is 13.49km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SAC through the marine environment.</p> <p>Regarding the construction phase, and considering the QIs of this SAC; given the distances involved, the localised and small scale of the proposed scheme, in combination with dilution effects through the indirect hydrological pathways, there is no potential for significant effect to this SAC as a result of the construction phase,</p> <p>Regarding the operational phase, and considering the QIs of this SAC; given there are no changes in drainage or hard surface area as a result of the proposed scheme, and that there is no direct link for visitors between this European site and the proposed scheme area, there are no sources with pathways for significant effects foreseen to European sites regarding habitat disturbance or hydrological interactions in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>	No	No

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
000713	Ballyman Glen SAC	13.88	Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220], Alkaline fens [7230]	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SAC is sensitive to groundwater interactions, disturbance effects and direct land use management activities. This site is 13.88km from the proposed scheme. There are no sources for effect for direct land use management of the SAC as this site is outside of the project boundary and there are no sources for effect for groundwater interactions due to the nature and scale of the proposed scheme.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed scheme and the distances involved; there are no potential sources for direct land use management, or hydrological effects identified due to lack of hydrological connectivity.</p> <p>Thus, there are no sources with pathways for significant effects foreseen and no further assessment is required.</p>	No	No
004025	Malahide Estuary SPA	14.09	Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Pintail (<i>Anas acuta</i>) [A054], Red-breasted Merganser (<i>Mergus serrator</i>)	<p>There are no Annex I habitats or supporting habitats for Annex II species within the proposed scheme area.</p> <p>The SPA is sensitive to hydrological interactions, disturbance effects and direct land use management activities. This site is 14.09km from the proposed scheme. 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 an indirect hydrological pathway between the proposed scheme and the SPA through the marine environment.</p> <p>SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{36,37}. These distances can vary due to factors such as species and/or time of year^{38,39}. Given the distance between the proposed scheme area and the SPA there are no pathways for noise disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources</p>	No	No

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

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

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

³⁹ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845-862.

Site Code	Site Name	Distance (km)	Qualifying Feature	Potential Effects	Potential for Significant Effects	Potential for In-Combination Effects
			[A069], Redshank (<i>Tringa totanus</i>) [A162], Shelduck (<i>Tadorna tadorna</i>) [A048], Wetland and Waterbirds [A999], Dunlin (<i>Calidris alpina</i>) [A149], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Goldeneye (<i>Bucephala clangula</i>) [A067]	<p>which may have interactions with the proposed scheme; however, the local 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.</p> <p>Regarding the construction phase, and considering the SCIs of this SPA; given the distances involved, the localised and small scale of the proposed scheme, there is no potential for significant effect to this SPA as a result of any hydrological interactions with the construction phase.</p> <p>Regarding the operational phase, and considering the SCIs of this SPA; there are no changes in drainage or hard surface area as a result of the proposed scheme. Considering a potential increase in visitors, the purpose of the proposed scheme is not to increase overall road use, but to convert vehicular road users to cycling or walking, and improve the safety and current infrastructure for road users. Therefore, there are no sources with pathways for significant effects foreseen to this European site with regard to hydrological quality and visitor impacts in the operational phase of the proposed scheme.</p> <p>Therefore, no further assessment is required.</p>		

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.

Section 3.2 - receiving environment overview - identifies the overall characteristics of the area with respect to existing condition and general land use. For consideration of in combination effects with respect to emerging or recent developments a search of the Dept of Housing, Local Government and Heritage planning database was undertaken to identify relevant plans and programmes which relate to the Proposed scheme. All developments in the receiving area were considered. The search area was defined using criteria which take account of the characteristics of the Proposed scheme and the associated sources (identified above). These criteria included:

- 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 have been considered in the context of characteristics of the Proposed scheme and on this basis a search radius of 200m was selected to be used to search for projects within the receiving environment. The sources for effects from the Proposed scheme have been 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 scheme:

- Dublin City Development Plan 2022-2028
- Greater Dublin Area Cycle Network Plan 2013
- Draft Dublin Transport Strategy for the Greater Dublin Area 2022-2024

The above plans have all undergone Appropriate Assessment to ensure no significant adverse effects to European sites, before being adopted and implemented⁴⁰. In-combination effects assessments have been undertaken for the wider Draft Transport Strategy for the Greater Dublin Area (2022-2042) and the Greater Dublin Area Cycle Network Plan (2013) within the NIS's accompanying the plans. Both have assessed for potential in-combination effects of the schemes with other plans, and provided relevant mitigation where required.

The proposed scheme will connect with some of the other cycle routes proposed in the near future under the above plans, which may connect to or run adjacent to European sites. However, any potential in-combination effects from an increase in footfall/visitors to European sites in the operational phase of this proposed scheme are predicted to be negligible due to the nature of the intended usage combined current usage and status of the proposed scheme area – i.e., the proposed

⁴⁰ Note that some are still at the Draft stage, but have undergone the AA process and are awaiting final adoption at the time of this assessment.

scheme is not likely to increase the number of road users overall, but rather encourage current vehicular road users to convert cycling or walking by improving infrastructure to enable safer journey by such means within the city. Therefore, it is not foreseen that the proposed scheme will have any significant in-combination effects with the above plans.

Considering the above, and that the proposed scheme is small in scale with a temporary construction phase, and the operational phase is consistent with the above plans, with no potential for significant effects, it is not foreseen that the proposed upgrade scheme will have any significant in-combination effects with the above plans.

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

Further to section 3.2 – which details the existing land uses and general characteristics of the area – a focus was placed on current and future development applications. To identify projects for consideration for the in-combination effects section, the Dept of Housing, Local Government and Heritage planning database was used⁴¹. A review of all planning applications within the identified zone was conducted focusing on all application within the past 5 years⁴².

In addition to this, other relevant planning applications which may not go through the County Council planning system were also examined. 12 National Transport Authority (NTA) “Core Bus Corridor” schemes are in various stages of either pre-application or consent stage (with An Bord Pleanála). Some of these schemes have potential to interact with the subject scheme. In particular, the Belfield/Blackrock to Merrion Core Bus Corridor Scheme, which has been submitted to An Bord Pleanála by the NTA for approval, and has gone through the Screening Appropriate Assessment process⁴³, which has found that a Natura Impact Statement is required for the application.

Information regarding the AA processes for all of the other Core Bus Corridor Schemes is also available on the NTA website⁴⁴. As each Core Bus Corridor project is/will be subject to applicable AA processes to ensure that the schemes will not cause significant effects on any Natura 2000 sites, there will be no potential for likely in-combination effects as a result of interactions with any effects arising from the proposed scheme.

Other cycle routes, as identified in the 2022 Greater Dublin Area Cycle Network⁴⁵, are also being progressed and at pre-consent or consent stage. This Network includes four other proposed Rapid Deployment Schemes, along the Dodder Greenway route, namely:

- Fitzwilliam Quay to Londonbridge Road;
- Donnybrook Road to Clonskeagh Road;
- Clonskeagh Road to Patricks Doyle Road; and
- Orwell Road to Dodder Road Lower.

This Cycle Network has been incorporated into the NTA Greater Dublin Area Transport Strategy

⁴¹ <https://data-housinggovie.opendata.arcgis.com/datasets/planning-application-sites-2010-onwards>; 22nd November 2022

⁴² 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

⁴³ AA Screening report and determination available at: <https://busconnects.ie/12-core-bus-corridor-statutory-applications/belfield-blackrock-to-city-centre-core-bus-corridor-scheme/>

⁴⁴ Available at: <https://busconnects.ie/initiatives/core-bus-corridors/>

⁴⁵ Available at: <https://www.nationaltransport.ie/wp-content/uploads/2023/01/2022-GDA-Cycle-Network.pdf>

2022-2042 (approved in January 2023) which has been subject to AA, ensuring that likelihood of significant in-combination effects of all proposed cycle routes have been duly assessed in full compliance with the requirements of the Habitats Directive at plan level. At project level, all schemes in the Network and Strategy are also subject to applicable requirements of the Habitats Directive, including AA screening.

As the proposed site being located in Dublin City, which is a highly urban area, there are a large number other proposed schemes in the vicinity including works which are at planning stage or underway on various sites. The database search found that the vast majority of projects within the area are relating to the altering of existing structures, small private home extensions, change of use, along more medium scale developments. Table 3.2 provides a list of the five largest proposed schemes within 200 m of the proposed scheme.

All construction and infrastructure work in the local area are small to large with Appropriate Assessments carried out for each where required. Due to the scale and nature of the proposed scheme, there are no significant adverse effects identified as a result of the implementation of the proposed Beaty's Avenue to Herbert Park Rapid Deployment Scheme. On this basis, i.e., of no potential for significant effects resulting from the scheme/project to which this assessment relates, assessment guidance given in CIEEM, 2018 indicates 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-combination with the proposed scheme.

The proposed scheme is localised, with a small scale, temporary construction phase, and no operational phase effects. None of the projects identified below introduce significant levels of effects with respect to the pathways to European sites. Therefore, given the nature and scale of the proposed scheme, and the lack of any potential for significant effects as assessed here, there are no in combination effects with the below projects or above plans that have been identified to have likely potential significant effects on any European site.

Table 3.2 Local planning applications⁴⁶ within the receiving environment of the proposed scheme⁴⁷

Project Code	Status	Overview	Grant Date	Project Area (sq m)	Potential cumulative or in-combination effects.	Is there a risk of in-combination effects	Are significant in-combination effects likely
3925/17	Grant Permission	PROTECTED STRUCTURE: Royal Dublin Society intends to apply for permission for development on RDS Lands, Ballsbridge, Dublin 4. The overall RDS lands are located to the south of Merrion Road between Anglesea Road and Simmonscourt Road and between Simmonscourt Road and Shrewsbury Road and also include part of Simmonscourt Road. The RDS complex includes a number of structures which are protected structures. The development will consist of revisions to development permitted under Reg. Ref. 2617/03 (An Bord Pleanala Ref. PL29S.205688). The proposed revision comprises the removal of parts (3) and (4) of Condition No. 4 of Reg. Ref. 2617/03 (An Bord Pleanala Ref. PL29S.205688) as amended by Reg. Ref. 3560/05, relating to the occupation of permitted office floor area in advance of outstanding refurbishment/provision of RDS core facilities being completed. No works to the protected structure are proposed.	2018/01/05	162,116	<p>This is a large-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, and the lack of any significant connection to a European site, it is not considered that there is any potential significant in-combination effects to the ecological integrity of any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>	No	No
3144/18	Grant Permission	PROTECTED STRUCTURE: The development will consist of the redevelopment of the Anglesea Stand to provide a new 3 level grandstand (6,481 person capacity), a 2 level (storey) hospitality and services building (Pocket Building) over basement, a club shop and substation (overall 8,604sq.m. [enclosed areas 2,805.3sq.m., concourse areas 2,721.7sq.m. with views facing onto the judging rings, External upper and Lower Tier of stand 3,077sq.m.]) with concrete, painted steel, metal panels, render and glass finishes to structures. The proposal will comprise: A) Demolition of the existing Anglesea Stand and Anglesea	2018/08/31	41,295	<p>This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, and the lack of any significant connection to a European site, it is not considered that there is any potential significant in-combination effects to the ecological integrity of</p>	No	No

⁴⁶ 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 schemes within the below stated parameters

⁴⁷ Parameters used: planning application from within the last 5 years, within a radius of 200m around the proposed scheme boundary

Project Code	Status	Overview	Grant Date	Project Area (sq m)	Potential cumulative or in-combination effects.	Is there a risk of in-combination effects	Are significant in-combination effects likely
		<p>Terrace structure (approx.7,716sq.m.), 'lean-to' open fronted shed bounding Simmons Court Road (approx. 145sq.m.) and removal of modern terrace (approx. 44sq.m.) area surrounding the clock tower (a protected structure);</p> <p>B) Provision of a new grandstand (7,332.2sq.m.) over 3 levels, 21.3m [26.8m OD] in height (with associated floodlighting and acoustic public address within roof of new stand) with a connection (via a glazed bridge link at level 01) to the pocket building of (1,204.3sq.m. GFA) comprising a 2 level (storey) 9.91m [15.41m OD] in height building with plant (89sq.m.) at roof level (within a louvered cover - overall height 10.66m 16.12m OD) to the east. The proposal will include the following flexible ancillary accommodation net sq.m. areas (for new grandstand and pocket building): security/control rooms (c.13.3m); media, players and officials facilities (c. 356.7sq.m. [217.8sq.m. in horseshow model]); corridor/circulation areas (c.74.7sq.m. [30.7sq.m. in horseshow model]); bar/server areas (c.994.2sq.m. [1,185.8sq.m. in horseshow model]); WC facilities [including disabled & staff facilities] (c.719.7sq.m.); stores/coldrooms (c.217.7sq.m.); season ticket/VIP hospitality areas (c.56.1sq.m.); ancillary plant/electric areas (c.109.5sq.m.); the internal arrangement of the pocket building (and ancillary areas) will be flexible to accommodate rugby and horse show requirements/events;</p> <p>C) A single storey substation (c.18.4sq.m.) 3.6m. in height [9.92m OD] located to the east of existing South Stand; and a single storey double height club shop (c.49.1sq.m.) 6.7m. in height [12.2m OD] located adjacent to existing RDS office building;</p> <p>D) Terrace areas level 00 (396sq.m.) and level 01 (92sq.m.) within pocket building on southern façade as well as views from all levels towards parade rings from grandstand and pocket building.</p>			<p>any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>		

Project Code	Status	Overview	Grant Date	Project Area (sq m)	Potential cumulative or in-combination effects.	Is there a risk of in-combination effects	Are significant in-combination effects likely
		<p>E) Provision of signage zones (overall 135.5sq.m.) to north (16sq.m.) and south (115sq.m.) elevations of proposed Anglesea Stand and north (2sq.m.) and east (2.5sq.m.) elevations of proposed club shop;</p> <p>F) Revised landscaping to the north of Anglesea Stand and external areas;</p> <p>G) Revisions to surface water/drainage/attenuation/storage arrangements including all associated site development and landscaping works; and</p> <p>H) Access arrangements and parking provision as per the established layout and operation of the RDS complex.</p>					
4712/18	Grant Permission	The development will consist in the installation of a new fire escape door and roller shutter to the rear facade.	2019/03/28	40,454	<p>This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, and the lack of any significant connection to a European site, it is not considered that there is any potential significant in-combination effects to the ecological integrity of any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>	No	No
4713/18	Grant Permission	The development will consist of the removal of the existing sculpture and base, with the reinstatement of paving at the Serpentine Avenue entrance side of AIB Bankcentre, and the removal of the existing sculpture at the Merrion Road entrance of AIB Bankcentre.	2019/03/28	40,454	<p>This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack</p>	No	No

Project Code	Status	Overview	Grant Date	Project Area (sq m)	Potential cumulative or in-combination effects.	Is there a risk of in-combination effects	Are significant in-combination effects likely
					<p>of any potential for effects to European sites arising from the proposed scheme, and the lack of any significant connection to a European site, it is not considered that there is any potential significant in-combination effects to the ecological integrity of any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>		
3312/18	Grant Permission	The development will consist of the construction of a new glazed revolving door to the Block J glazed atrium facade, along with associated sundry works to surrounding paving etc. at Serpentine Avenue side of AIB Bankcentre, Merrion Road, Ballsbridge, Dublin 4.	2018/09/18	40,454	<p>This is a medium-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, and the lack of any significant connection to a European site, it is not considered that there is any potential significant in-combination effects to the ecological integrity of any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>	No	No

4. Conclusion

This stage one AA Screening of the the proposed Beaty's Avenue to Herbert Park Rapid Deployment Scheme demonstrates that the proposed scheme is not likely to have significant effects on any European site.

The AA screening process has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the scheme. 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 that there are no likely significant effects on the qualifying interests, special conservation interests or the conservation objectives of any designated European site as a result of the implementation of the proposed scheme.

Given the small, localised scale of the proposed scheme, and the nature of the proposed scheme in the context of the local environment, plans and projects; the proposed scheme will not lead to any significant effects in-combination with effects arising from any other plans or projects.

It is concluded that the proposed scheme 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 effect to any European site as a result of the proposed scheme can be ruled out. This evaluation is made in view of the conservation objectives of the habitats or species for which these sites have been designated. Consequently, a Stage Two AA (NIS) is not required.

Appendix I Background information on European sites⁴⁸

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000199	Baldoyle Bay SAC	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310]	X, G01.02, F03.01, D01.02, G02.01, G01.01.02, F02.03.01, I01, K03.06, J02.01.02, K02.03, E03, E01	No threats or pressures, walking, horse-riding and non-motorised vehicles, hunting, roads, motorways, golf course, non-motorized nautical sports, bait digging or collection, invasive non-native species, antagonism with domestic animals, reclamation of land from sea, estuary or marsh, eutrophication (natural), discharges, urbanised areas, human habitation
000202	Howth Head SAC	Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230], European dry heaths [4030]	E01, C01, G01.02, I01, G05.04, C01.01.01, D01.01, A04.03, J01.01, X	Urbanised areas, human habitation, mining and quarrying, walking, horse-riding and non-motorised vehicles, invasive non-native species, vandalism, sand and gravel quarries, paths, tracks, cycling tracks, abandonment of pastoral systems lack of grazing, burning down, no threats or pressures
000205	Malahide Estuary SAC	Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Mudflats and sandflats not covered by seawater at low tide [1140], Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120]	G01.03, F03.01, D01.05, X, I01, J02.01.02, G02.01, G01.02, E01, D01.02, A08, G01.01	Motorised vehicles, hunting, bridge, viaduct, no threats or pressures, invasive non-native species, reclamation of land from sea, estuary or marsh, golf course, walking, horse-riding and non-motorised vehicles, urbanised areas, human habitation, roads, motorways, fertilisation, nautical sports
000206	North Dublin Bay SAC	Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410], Shifting dunes along the shoreline with <i>Ammophila arenaria</i> - white dunes [2120], Petalwort (<i>Petalophyllum ralfsii</i>) [1395], Mudflats and sandflats not covered by seawater at low tide [1140], Annual vegetation of drift lines [1210], Salicornia and other annuals colonising mud and sand [1310], Embryonic shifting dunes [2110], Humid dune slacks [2190], Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]	A04, J01.01, E02, E01, G02.01, G01.01, F02.03.01, H01.03, H01.09, G05.05, F02.03, E03, I01, K03.06, G01.02	Grazing, burning down, industrial or commercial areas, urbanised areas, human habitation, golf course, nautical sports, bait digging or collection, other point source pollution to surface water, diffuse pollution to surface waters due to other sources not listed, intensive maintenance of public parks or cleaning of beaches, leisure fishing, discharges, invasive non-native species, antagonism with domestic animals, walking, horse-riding and non-motorised vehicles
000210	South Dublin Bay	Salicornia and other annuals colonising mud and sand [1310], Embryonic shifting dunes [2110], Mudflats and sandflats not	D01.01, G01.01.02, M01, H03, E02, E03,	Paths, tracks, cycling tracks, non-motorized nautical sports, changes in abiotic conditions, marine water pollution, industrial or commercial areas, discharges, bait digging or

⁴⁸ That have functional connectivity (ecological pathways) to the proposed scheme area including their Qualifying Interests, known threats and pressures

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
	SAC	covered by seawater at low tide [1140], Annual vegetation of drift lines [1210]	F02.03.01, G01.01, K02, E01, J02.01.02, D01.02, G01.02, K02.02	collection, nautical sports, biocenotic evolution, succession, urbanised areas, human habitation, reclamation of land from sea, estuary or marsh, roads, motorways, walking, horse-riding and non-motorised vehicles, accumulation of organic material
000713	Ballyman Glen SAC	Alkaline fens [7230], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	A01, A04, E01.01, A08, B01, A10.01, H01.03, E03.01, D01.02, E01.02, H02.01, C01.01	Cultivation, grazing, continuous urbanisation, fertilisation, forest planting on open ground, removal of hedges and copses or scrub, other point source pollution to surface water, disposal of household or recreational facility waste, roads, motorways, discontinuous urbanisation, groundwater pollution by leakages from contaminated sites, sand and gravel extraction
000725	Knocksink Wood SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0], Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	G03, G05.07, A04, E03.01, D01.02, G05.06, G05.04, D01.01, E01.02, G01.02, B02.03, I01, B01.02, B01, D05, G02.08	Interpretative centres, missing or wrongly directed conservation measures, grazing, disposal of household or recreational facility waste, roads, motorways, tree surgery, felling for public safety, removal of roadside trees, vandalism, paths, tracks, cycling tracks, discontinuous urbanisation, walking, horse-riding and non-motorised vehicles, removal of forest undergrowth, invasive non-native species, artificial planting on open ground (non-native trees), forest planting on open ground, improved access to site, camping and caravans
001209	Glenasmole Valley SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410], Petrifying springs with tufa formation (<i>Cratoneurion</i>) [7220]	A04.02.01, A03, E01.02, A03.03, A08, A04.02.03, B01.02, J02, A04, A04.02.02, B01.01, D01, H01.05, B02.01.02, D01.03, C01.03, F02.03, I01, H02.07, B02.02, H01.08	Non intensive cattle grazing, mowing or cutting of grassland, discontinuous urbanisation, abandonment or lack of mowing, fertilisation, non-intensive horse grazing, artificial planting on open ground (non-native trees), human induced changes in hydraulic conditions, grazing, non-intensive sheep grazing, forest planting on open ground (native trees), roads, paths and railroads, diffuse pollution to surface waters due to agricultural and forestry activities, forest replanting (non-native trees), car parks and parking areas, peat extraction, leisure fishing, invasive non-native species, diffuse groundwater pollution due to non-sewered population, forestry clearance, diffuse pollution to surface waters due to household sewage and waste waters
002122	Wicklow Mountains SAC	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) [3110], Alpine and Boreal heaths [4060], European dry heaths [4030], Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) [8110], Siliceous rocky slopes with chasmophytic vegetation [8220], Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Old sessile oak woods with	G05.04, E03.01, A04, G05.09, G05.06, E01, B06, G01.02, G05.07, I01, G04.01, D01.01, C01.03, G01, L05, K01.01, F04.02, G02.09, B02.05, G01.04, G01.03.02,	Vandalism, disposal of household or recreational facility waste, grazing, fences, fencing, tree surgery, felling for public safety, removal of roadside trees, urbanised areas, human habitation, grazing in forests or woodland, walking, horse-riding and non-motorised vehicles, missing or wrongly directed conservation measures, invasive non-native species, military manoeuvres, paths, tracks, cycling tracks, peat extraction, outdoor sports and leisure activities, recreational activities, collapse of terrain, landslide, erosion, collection (fungi, lichen, berries etc.), wildlife watching, non-intensive timber production (leaving dead wood or old trees untouched), mountaineering, rock climbing, speleology, off-road

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		Ilex and Blechnum in the British Isles [91A0], Otter (<i>Lutra lutra</i>) [1355], Natural dystrophic lakes and ponds [3160], Northern Atlantic wet heaths with <i>Erica tetralix</i> [4010], Calcareous rocky slopes with chasmophytic vegetation [8210], Blanket bogs * if active bog [7130], Calaminarian grasslands of the <i>Violetalia calaminariae</i> [6130]	G05.01, K04.05, J01.01, A05.02, F03.02.02, F03	motorized driving, trampling, overuse, damage by herbivores (including game species), burning down, stock feeding, taking from nest (e.g., falcons), hunting and collection of wild animals (terrestrial)
002193	Ireland's Eye SAC	Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic Coasts [1230]	G01.01, J01, X, A04.03, G01.02, G05.01, G02.09	Nautical sports, fire and fire suppression, no threats or pressures, abandonment of pastoral systems lack of grazing, walking, horse-riding and non-motorised vehicles, trampling, overuse, wildlife watching
003000	Rockabill to Dalkey Island SAC	Harbour porpoise (<i>Phocoena phocoena</i>) [1351], Reefs [1170]	J02.02, E03, D03.02, X, J02.11, F02.02, H06.01, D02	Removal of sediments (mud...), discharges, shipping lanes, no threats or pressures, siltation rate changes, dumping, depositing of dredged deposits, professional active fishing, noise nuisance, noise pollution, utility and service lines
004006	North Bull Island SPA	Curlew (<i>Numenius arquata</i>) [A160], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Turnstone (<i>Arenaria interpres</i>) [A169], Wetland and Waterbirds [A999], Shoveler (<i>Anas clypeata</i>) [A056], Teal (<i>Anas crecca</i>) [A052], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Sanderling (<i>Calidris alba</i>) [A144], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Pintail (<i>Anas acuta</i>) [A054], Redshank (<i>Tringa totanus</i>) [A162], Shelduck (<i>Tadorna tadorna</i>) [A048]	G02.01, E01.01, G01.02, D01.02, D01.05, E02, D03.02, E03, E01.04, F02.03.01, G03, G01.01	Golf course, continuous urbanisation, walking, horse-riding and non-motorised vehicles, roads, motorways, bridge, viaduct, industrial or commercial areas, shipping lanes, discharges, other patterns of habitation, bait digging or collection, interpretative centres, nautical sports
004016	Baldoyle Bay SPA	Grey Plover (<i>Pluvialis squatarola</i>) [A141], Shelduck (<i>Tadorna tadorna</i>) [A048], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674]	D01.02, G02.01, J02.01.02, F03.01, F02.03.01, A08, E01, G01.02, I01, K02.03	Roads, motorways, golf course, reclamation of land from sea, estuary or marsh, hunting, bait digging or collection, fertilisation, urbanised areas, human habitation, walking, horse-riding and non-motorised vehicles, invasive non-native species, eutrophication (natural)
004024	South Dublin Bay and Tolka	Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Redshank (<i>Tringa totanus</i>) [A162], Ringed Plover (<i>Charadrius hiaticula</i>)	E03, E01, D01.02, G01.02, G01.01, K02.03, J02.01.02,	Discharges, urbanised areas, human habitation, roads, motorways, walking, horse-riding and non-motorised vehicles, nautical sports, eutrophication (natural), reclamation of land from sea, estuary or marsh, leisure fishing, industrial or commercial areas, bait digging or

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
	Estuary SPA	[A137], Roseate Tern (<i>Sterna dougallii</i>) [A192], Sanderling (<i>Calidris alba</i>) [A144], Wetland and Waterbirds [A999], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Dunlin (<i>Calidris alpina</i>) [A149], Knot (<i>Calidris canutus</i>) [A143], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Common tern (<i>Sterna hirundo</i>) [A193], Arctic tern (<i>Sterna paradisaea</i>) [A194]	F02.03, E02, F02.03.01	collection
004025	Broadmeadow/Swords Estuary SPA	Goldeneye (<i>Bucephala clangula</i>) [A067], Knot (<i>Calidris canutus</i>) [A143], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A674], Wetland and Waterbirds [A999], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Shelduck (<i>Tadorna tadorna</i>) [A048], Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Dunlin (<i>Calidris alpina</i>) [A149], Redshank (<i>Tringa totanus</i>) [A162], Pintail (<i>Anas acuta</i>) [A054], Black-tailed Godwit (<i>Limosa limosa</i>) [A156]	I01, A08, D01.05, E02, D01.04, J02.01.02, E01, G01.02, G01.01, D01.01	Invasive non-native species, fertilisation, bridge, viaduct, industrial or commercial areas, railway lines, tgv, reclamation of land from sea, estuary or marsh, urbanised areas, human habitation, walking, horse-riding and non-motorised vehicles, nautical sports, paths, tracks, cycling tracks
004040	Wicklow Mountains SPA	Peregrine falcon (<i>Falco peregrinus</i>) [A103], Merlin (<i>Falco columbarius</i>) [A098]	G01.02, D01.01, A04, G03, B, C01.03	Walking, horse-riding and non-motorised vehicles, paths, tracks, cycling tracks, grazing, interpretative centres, silviculture, forestry, peat extraction
004113	Howth Head Coast SPA	Kittiwake (<i>Rissa tridactyla</i>) [A188]	J01, G01.02	Fire and fire suppression, walking, horse-riding and non-motorised vehicles
004117	Ireland's Eye SPA	Cormorant (<i>Phalacrocorax carbo</i>) [A017], Guillemot (<i>Uria aalge</i>) [A199], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Razorbill (<i>Alca torda</i>) [A200]	F02.03, G01.02	Leisure fishing, walking, horse-riding and non-motorised vehicles
004172	Dalkey Islands SPA	Arctic tern (<i>Sterna paradisaea</i>) [A194], Roseate tern (<i>Sterna dougallii</i>) [A192], Common tern (<i>Sterna hirundo</i>) [A193]	G01.02, E01, A04, G01.01	Walking, horse-riding and non-motorised vehicles, urbanised areas, human habitation, grazing, nautical sports

Appendix II Further information on the Qualifying Interests of SACs that have undergone assessment⁴⁹

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

⁴⁹ Including known treats and pressures and sensitivities of qualifying interests

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[1230]	Vegetated sea cliffs of the Atlantic and Baltic coasts	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change.	C01, E01, F07, F08, I02, N03, N04	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), increases or changes in precipitation due to climate change, sea-level and wave exposure changes due to climate change	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.
[1310]	Salicornia and other annuals colonising mud and sand	Pressures on Salicornia mud are caused by alien species and overgrazing by livestock	A09, I02	Intensive grazing or overgrazing by livestock, other invasive alien species (other than species of union concern)	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
[1330]	Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)	The main pressures on Atlantic salt meadows are from agriculture, including ecologically unstable grazing regimes and land reclamation, and the invasive non-native species common cord-grass (<i>Spartina anglica</i>).	A09, A33, A36, F07, F08, I02	Intensive grazing or overgrazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern)	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.
[1351]	Harbour Porpoise (<i>Phocoena phocoena</i>)	Pressures acting on this species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal by fisheries.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Sensitive to disturbance, prey availability and pollution.
[1355]	Otter (<i>Lutra lutra</i>)	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

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
					pollution.
[1395]	Petalwort (<i>Petalophyllum ralfsii</i>)	There are no pressures facing this species.	Xxp, Xxt	No pressures, no threats	None identified.
[1410]	Mediterranean salt meadows (<i>Juncetalia maritimi</i>)	Most of the pressures on Mediterranean salt meadows are associated with agriculture, including overgrazing, under-grazing and land reclamation.	A09, A10, A33, A36	Intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
[2110]	Embryonic shifting dunes	The majority of pressures on this habitat are associated with recreation and coastal defences, which can interfere with sediment dynamics.	C01, E03, F01, F06, F07, F08, L01, L02	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 (<i>Ammophila arenaria</i>)	Most of the pressures on marram dunes are caused by the interference on sediment dynamics due to recreation and coastal defences.	E01, E03, F01, F06, F07, F08, I02, L01	Roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), shipping lanes, ferry lanes and anchorage infrastructure (e.g., canalisation, dredging), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions), development and maintenance of beach areas for tourism and recreation incl. beach nourishment and beach cleaning, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), abiotic natural processes (e.g., erosion,	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
				silting up, drying out, submersion, salinization)	
[2130]	Fixed coastal dunes with herbaceous vegetation (grey dunes)	Pressures on fixed dunes are associated with recreation and ecologically unsuitable grazing practices.	A02, A09, A10, F07, F08, I02, L02	Conversion from one type of agricultural land use to another (excluding drainage and burning), intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Overgrazing, and erosion. Changes in management.
[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.	A19, A31, F07, I02, L02	Application of natural fertilisers on agricultural land, drainage for use as 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 or forestry practices)	Overgrazing, and erosion. Changes in management. Sensitive to hydrological change.
[3110]	Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>)	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 dystrophic lakes and ponds	The pressures on this habitat are associated with pollution from agricultural and forestry activities and also from drainage.	A26, A31, B23, B27, C05, D08	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, energy production and transmission activities generating pollution to surface or ground waters	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
[4010]	Northern Atlantic wet heaths with <i>Erica tetralix</i>	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.	A09, A11, A27, B01, D01, 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), wind, wave and tidal power, including infrastructure, 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 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	Intensive grazing or overgrazing by livestock, burning for agriculture, conversion to forest from other land uses, or afforestation (excluding drainage), wind, wave and tidal power, including infrastructure, temperature changes (e.g., rise of temperature & extremes) due to climate change	Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status.
[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	Intensive grazing or overgrazing by livestock, agricultural activities generating air pollution, sports, tourism and leisure activities, temperature changes (e.g., rise of temperature & extremes) due to climate change	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
[6130]	Calaminarian grasslands of the Murawy galmanowa (<i>Violetalia calaminariae</i>)	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 facies on calcareous substrates (<i>Festuco-Brometalia</i>) *	The significant pressures related to this habitat are mainly associated with agricultural intensification causing loss of species-rich communities, or abandonment of farmland resulting in succession to scrub.	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., rock, metal ores, gravel, sand, shell), other invasive alien species (other than species of union concern), problematic native species	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
	<i>important orchid sites)</i>				
[6230]	Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	The main pressures on this habitat are due to bracken encroachment and succession.	I04, L02	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 (<i>Molinion caeruleae</i>)	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.
[7220]	Petrifying springs with tufa formation (Cratoneurion)	Pressures related to this habitat are associated with drainage, pollution to ground and surface waters, recreational activities, infrastructure, overgrazing and abandonment of grassland management.	A06, A10, E01, F07, H08, J01, K02, K04, L02	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	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.

EU Code	Qualifying Interests	Article 17 Report Summary - Threats and Pressures	Threats and Pressures Codes	Known Threats and Pressures	Sensitivity of Qualifying Interests
				hydrological flow, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	
[7230]	Alkaline fens	The main pressures facing this habitat are land abandonment (and associated succession), overgrazing, drainage and pollution.	A06, A09, A26, J01, K01, K02, K04, L02, N02, N03	Abandonment of grassland management (e.g., cessation of grazing or of mowing), intensive grazing or overgrazing by livestock, agricultural activities generating diffuse pollution to surface or ground waters, mixed source pollution to surface and ground waters (limnic and terrestrial), abstraction from groundwater, surface water or mixed water, drainage, modification of hydrological flow, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices), temperature changes (e.g., rise of temperature & extremes) due to climate change, increases or changes in precipitation due to climate change	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
[8110]	Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)	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 (<i>Epilobium brunnescens</i>).	I02	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 assessment⁵⁰

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A048	Common Shelduck	<i>Tadorna tadorna</i>	F01, F02, G01, H03, M01	Marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A054	Northern Pintail	<i>Anas acuta</i>	C03, F01, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, human induced changes in hydraulic conditions
A056	Northern Shoveler	<i>Anas clypeata</i>	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution
A067	Common Goldeneye	<i>Bucephala clangula</i>	C03, F01, F03, G01, H01, H03, H07, M02	Renewable abiotic energy use, marine and freshwater aquaculture, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution, changes in biotic conditions
A069	Red-Breasted Merganser	<i>Mergus serrator</i>	C03, F01, F02, G01, H03	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution
A098	Merlin	<i>Falco columbarius</i>	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	<i>Haematopus ostralegus</i>	C03, F01, F02, G01, H03, J02	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions
A137	Common Ringed Plover	<i>Charadrius hiaticula</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A140	European Golden Plover	<i>Pluvialis apricaria</i>	A02, A04, B01, C01, C03, F01, G01, H03, J01,	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

⁵⁰ Including known treats and pressures of SCIs

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
			K03, M02	
A141	Grey Plover	<i>Pluvialis squatarola</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A143	Red Knot	<i>Calidris canutus</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A144	Sanderling	<i>Calidris alba</i>	C03, F01, G01, H03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, changes in abiotic conditions
A149	Dunlin	<i>Calidris alpina</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A157	Bar-Tailed Godwit	<i>Limosa lapponica</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A162	Common Redhank	<i>Tringa totanus</i>	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, fishing and harvesting aquatic resources, outdoor sports and leisure activities, recreational activities, marine water pollution, human induced changes in hydraulic conditions, other ecosystem modifications, changes in abiotic conditions
A169	Ruddy Turnstone	<i>Arenaria interpres</i>	C03, F01, G01, H03, J03, M01	Renewable abiotic energy use, marine and freshwater aquaculture, outdoor sports and leisure activities, recreational activities, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A179	Black-Headed Gull	<i>Larus ridibundus</i>	A04, C03, F02, H03, J03, M01	Grazing, renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications, changes in abiotic conditions
A184	European Herring Gull	<i>Larus argentatus</i>	C03, F02, H03, J03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution, other ecosystem modifications
A188	Black-Legged Kittiwake	<i>Rissa tridactyla</i>	C03, F02, H03	Renewable abiotic energy use, fishing and harvesting aquatic resources, marine water pollution

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A193	Common Tern	<i>Sterna hirundo</i>	C03, D01, D03, G01, I01	Renewable abiotic energy use, roads, paths and railroads, shipping lanes, ports, marine constructions, outdoor sports and leisure activities, recreational activities, invasive non-native species
A194	Arctic Tern	<i>Sterna paradisaea</i>	C03, D01, G01, I01, M01	Renewable abiotic energy use, roads, paths and railroads, outdoor sports and leisure activities, recreational activities, invasive non-native species, changes in abiotic conditions
A200	Razorbill	<i>Alca torda</i>	C03, H03	Renewable abiotic energy use, marine water pollution

Appendix IV Conservation Objectives⁵¹

- 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 (2019) Conservation Objectives for Ballyman Glen SAC [IE0000713] Version 1.
- NPWS (2021) Conservation Objectives for Knocksink Wood SAC [IE0000725] Version 1.
- NPWS (2021) Conservation Objectives for Glenasmole Valley SAC [IE0001209] Version 1.
- NPWS (2017) Conservation Objectives for Wicklow Mountains SAC [IE0002122] Version 1.
- NPWS (2017) Conservation Objectives for Ireland's Eye SAC [IE0002193] Version 1.
- NPWS (2013) Conservation Objectives for Rockabill to Dalkey Island SAC [IE0003000] Version 1.
- NPWS (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) Generic Conservation Objectives for Wicklow Mountains SPA [IE0004040] Version 9.
- NPWS (2022) Generic Conservation Objectives for Howth Head Coast SPA [IE0004113] Version 9.
- NPWS (2022) Generic Conservation Objectives for Ireland's Eye SPA [IE0004117] Version 9.
- NPWS (2022) Generic Conservation Objectives for Dalkey Islands SPA [IE0004172] Version 9.

⁵¹ NPWS/Department of Culture, Heritage and the Gaeltacht

Appendix V Contributor Details

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 (EclAs) 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.