

**Clongriffin to
City Centre Core
Bus Corridor Scheme**
March 2022

**Appropriate
Assessment
Report**

**Screening
Report**

**BUS
CONNECTS**

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

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1 Introduction

- 1 This report, which contains information to assist the competent authority to undertake a screening for Appropriate Assessment (AA) in respect of the Clongriffin to City Centre Scheme (hereinafter referred to as “the Proposed Scheme”), has been prepared by Scott Cawley Ltd. on behalf of the National Transport Authority. It provides information on, and assesses the potential in view of best scientific knowledge for, the Proposed Scheme to have significant effects, either individually or in combination with other plans or projects on the Natura 2000 network (hereafter referred to as European sites)¹. The Proposed Scheme aims to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor between Clongriffin and the City Centre.
- 2 Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (the “Habitats Directive”) requires that, any plan or project not directly connected with or necessary to the management of European sites, but likely to have significant effects thereon, either individually or in combination with other plans or projects, shall be subject to AA of its implications for the European sites in view of their conservation objectives. The requirements of Article 6(3) of the Habitats Directive, have been transposed into Irish law by Part XAB of the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended) (the “2011 Birds and Habitats Regulations”).

For the reasons set out in detail in this AA Screening Report, a Stage Two **Appropriate Assessment of the Proposed Scheme is required in this instance** as it cannot be excluded, in view of best scientific knowledge and on the basis of objective information, that the Proposed Scheme, either individually or in combination with other plans or projects, will not have a significant effect on the following European site(s) in view of the conservation objectives of those site(s): **North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Howth Head Coast SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Dalkey Islands SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland’s Eye SPA, Lambay Island SPA and The Murrrough SPA.**

2 Methodology

2.1 Guidance

- 3 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:
 - *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision);
 - *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities.* Circular NPW 1/10 & PSSP 2/10;

¹ The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both special areas of conservation and special protection areas. Special conservation areas are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special protection areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe’s most valuable and threatened species and habitats. In Ireland these sites are designated as *European sites* - defined under the section 177R of the Planning and Development Act 2001 (as amended) as (a) a candidate site of Community importance, (b) a site of Community importance, (ba) a candidate special area of conservation, (c) a special area of conservation, (e) a candidate special protection area, or (d) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

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- *Assessment of Plans and Projects in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021);
- *Communication from the Commission on the precautionary principle* (European Commission, 2000);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* (European Commission, 2019);
- *Interpretation Manual of European Union Habitats. Version EUR 28.* (European Commission, 2013); and
- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021).

2.2 Assessment Methodology

- 4 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for significant effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects.
- 5 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and / or the QI / Special Conservation Interest (SCI) species of a European site(s).
- 6 **Image 1** describes the steps involved in Stage One Screening for Appropriate Assessment.

Image 1: Stage One Screening Process for Appropriate Assessment



- 7 If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake a Stage Two Appropriate Assessment.
- 8 A source-pathway-receptor approach has been applied. In order for a likely significant effect to occur, there must be a risk enabled by having a source (e.g., water abstraction or construction works), a receptor (e.g., a European site or its QI(s) or SCI(s)²), and a pathway between the source and the receptor (e.g., by air for

² The term qualifying interest is used when referring to the habitats or species for which an SAC is designated; the term special conservation interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

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airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for likely significant effects to occur.

- 9 The identification of source-pathway-receptor connection(s) between the Proposed Scheme and European sites essentially is the process of identifying which European sites are within the Zone of Influence (Zoi) of the Proposed Scheme, and therefore potentially at risk of significant effects. The Zoi is the area over which the Proposed Scheme could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI / SCI species of a European site, or on the achievement of their conservation objectives³.
- 10 The identification of a source-pathway-receptor link does not mean that significant effects will arise. Rather, the likelihood for significant effects will depend upon the characteristics of the source (e.g., extent and duration of construction works), the characteristics of the pathway (e.g., direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g., the sensitivities of the European site and its QIs / SCIs).

2.3 Desktop Data Review

- 11 The desktop data sources used to inform the assessment presented in this report are as follows (accessed in November 2020):
 - Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) as held by the NPWS (NPWS 2020);
 - Online data records available on National Biodiversity Data Centre Database (NBDC 2020);
 - Online data records made available via an NPWS data request (NPWS 2020);
 - Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2019a, 2019b and 2019c);
 - Ordnance Survey Ireland (OSI) orthophotography (from 1995 to 2012) for the Proposed Scheme study area;
 - Records of rare and / or protected species for the 10km grid squares O03, O13 and O23, held by the NPWS;
 - Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data⁴;
 - Records from the Botanical Society of Britain and Ireland (BSBI) (BSBI 2020);
 - Information contained within the Flora of County Dublin⁵;
 - Environmental information/data for the area available from the EPA website www.epa.ie;
 - Information on the status of EU protected habitats and species in Ireland⁶;
 - Information on light-bellied brent goose inland feeding sites⁷;

³ As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018)

⁴ Article 17 of the EU Directive on the Conservation of habitats, Floras and Fauna (Habitats Directive) required that all member states report to the European Commission every six years on the status and on the implementation of the measures taken under the Habitats Directive. In similar manner, there is an obligation to report on the status and trends of bird species required under Article 12 of the Bird's Directive.

⁵ Doogue, D., Nash, D., Parnell, J., Reynolds, S. & Wyse Jackson, P. (eds) (1998) *Flora of County Dublin*. The Dublin Naturalists' Field Club, Dublin

⁶ NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. *Unpublished NPWS report*.

⁷ Scott Cawley Ltd. (2017). Natura Impact Statement – Information for Stage 2 Appropriate Assessment for the Proposed Residential Development St. Paul's College, Sybill Hill, Raheny, Dublin 5.

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- The results of ecological surveys undertaken as part of the Environmental Impact Assessment (EIA) studies for the Proposed Scheme; and
- Information on the location, nature and design of the Proposed Scheme.

2.4 Consultations

12 **Table 1** outlines the Appropriate Assessment issues raised during consultation.

Table 1: Appropriate Assessment Issues Raised During Consultation

Consultee	Phase / Date of Consultation	Issues Raised
<p><i>Department of Housing, Local Government and Heritage</i> (formerly Department of Culture, Heritage and the Gaeltacht)</p>	<p>30/07/19 Ref. G Pre00165/2019</p>	<p>The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features:</p> <ul style="list-style-type: none"> • Biodiversity in general and with specific attention to Natura 2000 sites. • Habitats and species protected under the Habitats Directive, such as Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur), bird species protected under the Birds Directive, such as Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur). • species and / or habitats listed in the Habitats Directive inside or outside of Natura 2000 sites be recorded. • Species protected under the Wildlife Act, including protected flora. • Important bird areas such as those identified by Birdwatch Ireland. • Features of the landscape which are of major importance as biodiversity corridors to wild flora or fauna, as referenced in Article 10 of the Habitats Directive.
		<p>Detailed bird surveys should be undertaken at all times of the year to establish areas of the Proposed Scheme used by birds should be included in the AA.</p>
		<p>The Department requires that the Appropriate Assessment addresses the issue of invasive alien plant and animal species and include detailed methods to ensure accidental introduction or spreading does not occur. The Department recommended that an Invasive Species Action Plan should form part of the planning application.</p>
		<p>Department recommended that the Cumulative impacts of the Proposed Scheme be considered, to include interaction between different and / or approved plans and projects in the same area as the Proposed Scheme.</p>
		<p>The Department recommended that the Proposed Scheme be subject to Appropriate Assessment in respect of potential to impact Natura 2000 sites either alone or in combination with other plans or projects, and must contain complete (contain no lacunae), precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.</p> <p>To assess mitigations, the following tasks must be completed:</p>

		<ul style="list-style-type: none"> • List each of the measures to be introduced (e.g., noise bunds, tree planting). • Explain how the measures will avoid the adverse impacts on the site. • Explain how the measures will reduce the adverse impacts on the site. <p>Then, for each of the listed mitigation measures:</p> <ul style="list-style-type: none"> • Provide evidence of how they will be secured and implemented and by whom. • Provide evidence of the degree of confidence in their likely success. • Provide a timescale, relative to the project or plan, when they will be implemented. <p>Where residual impacts remain, further mitigation measures may be required:</p> <ul style="list-style-type: none"> • Evidence should be provided of how mitigation measures will be monitored. • Monitoring should take place immediately down-stream of the Proposed Scheme. • The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment.
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2.5 Baseline Surveys

- 13 This section describes the ecological surveys carried out to inform the assessment of likely significant effects on European sites.

2.5.1 Habitats and Flora Survey

- 14 Habitat surveys were carried out by Scott Cawley Ltd. between June and August 2018 along the Proposed Scheme alignment. Confirmatory surveys were subsequently undertaken on the Proposed Scheme again in August 2020 to check and update the presence and extent of habitats found in the 2018 habitat surveys. Additional habitat surveys were carried out in March 2021 along the section of additional land required since 2018 at Priorswood Road for the bus turn around facility. All habitats located within or immediately adjacent to the Proposed Scheme footprint were surveyed and mapped to level three of the Heritage Council’s habitat codes, after Fossitt⁸ and in accordance with *Best Practice Guidance for Habitat Survey and Mapping*⁹. The level of field data quality was also recorded. Plant species present that were either representative of a habitat or considered to be of conservation interest (i.e., those listed on the Flora Protection Order or listed in the ‘threatened’ category or higher on the Red List for vascular plants and bryophytes) were recorded, along with their relative abundances. Non-native invasive plant species listed on the Third Schedule of the 2011 Birds and Habitats Regulations were also recorded. Each habitat’s extent was mapped onto an aerial photograph, with GPS points taken where a habitat’s extent could not be clearly identified from the aerial photograph. Vascular plant nomenclature follows that of the *New Flora of the British Isles 4th Edition*¹⁰.
- 15 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. No instream works are proposed and the desk study identified no sites where water bodies may

⁸Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

⁹Smith, G.F., O’Donoghue, P., O’Hora, K. & Delaney, E. (2011) *Best Practice Guidance for Habitat Survey and Mapping*. The Heritage Council Church Lane, Kilkenny, Ireland.

¹⁰Stace, C. (2019) *New Flora of the British Isles. 4th Edition*. C&M Floristics

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be subject to significant disturbance as a consequence of the Proposed Scheme. As such, instream aquatic habitat surveys were not deemed necessary.

2.5.2 Fauna Surveys

Ecological surveys relevant to Proposed Scheme include habitat surveys, surveys for the presence or signs of terrestrial, mobile Annex II species (i.e., otter *Lutra lutra*), and surveys for Special Conservation Interest bird species. Dedicated fisheries or aquatic surveys were not required for this assessment as the Proposed Scheme is not hydrologically connected to any European site designated for Annex II fish species or white-clawed crayfish. The nearest known European site designated for Salmon, River Lamprey and Brook Lamprey is the River Boyne and River Blackwater SAC, located approximately 34.7km north of the Proposed Scheme in the Boyne River catchment. The nearest known European site designated for white-clawed crayfish is the River Barrow and River Nore SAC, which is located approximately 51km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow river catchment. There is no hydrological connectivity between the Proposed Scheme and these European sites.

2.5.2.1 Otter

- 16 The footprint of the Proposed Scheme and suitable lands e.g., greenfield sites immediately adjacent were surveyed for otter *Lutra lutra* activity as part of the multi-disciplinary walkover survey, undertaken between June and August 2018, and in August 2020. The presence / absence of these species was surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings as well as by direct observation. In addition, the study area was surveyed for the presence of otter holts. Where present, any evidence of use was recorded.
- 17 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. No instream works are proposed and the desk study identified no site where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. As such, separate otter suitability surveys were not deemed necessary.

2.5.2.2 Kingfisher

- 18 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. No instream works are proposed and the desk study identified no sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. As such, kingfisher habitat suitability assessment surveys were not deemed necessary.

2.5.2.3 Other Birds

- 19 The results of the desk study have informed the assessment of likely significant effects on breeding bird species arising from the Proposed Scheme.
- 20 A desk study was carried out to identify any potential suitable inland feeding and / or roosting sites for winter birds located within or directly adjacent to the Proposed Scheme. This included a review of recent aerial photography and known inland feeding sites for the SCI bird species light-bellied brent goose (Scott Cawley Ltd., 2017).
- 21 The desk study identified three sites along or adjacent to the Proposed Scheme with potential for wintering birds that would be subject to direct habitat loss. This was located at lands opposite the Hilton Hotel at the junction of Malahide Road/ R139 (Northern Cross) referred to as CBC0001WB001, Buttercup Park, immediately west of the Malahide Road, referred to as CBC0001WB002, and Maypark, immediately east of the Malahide Road, referred to as CBC0001WB003.
- 22 The results of the desk-based study have informed the assessment of potential impacts on wintering bird species arising from the Proposed Scheme.

3 Provision of Information for Screening for Appropriate Assessment

- 23 The following sections provide information to facilitate the Appropriate Assessment screening of the Proposed Scheme to be undertaken by the competent authority.
- 24 A description of the Proposed Scheme and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are described, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Proposed Scheme to affect the receiving ecological environment (e.g., air quality, geological, hydrogeological and hydrological data etc.).
- 25 The potential impacts are examined in order to define the potential zone of influence of the Proposed Scheme on the receiving environment. This then informs the assessment of whether the Proposed Scheme has the potential to result in significant effects on any European sites; i.e., affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Scheme

- 26 The following sections provide information to facilitate the Appropriate Assessment screening of the Proposed Scheme to be undertaken by the competent authority.
- 27 A description of the Proposed Scheme and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Proposed Scheme to affect the receiving ecological environment (e.g., geological, hydrogeological and hydrological data etc.).
- 28 The potential impacts are examined in order to define the potential zone of influence of the Proposed Scheme on the receiving environment. This then informs the assessment of whether the Proposed Scheme will result in significant effects on any European sites; i.e., affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1.1 Overview

- 29 The Clongriffin to City Centre Core Bus Corridor Scheme is routed along the R107 Malahide Road from Mayne River Avenue – R107 Malahide Road Junction to the junction with Marino Mart - Fairview and also routed for cyclists via the junction with Malahide Road-Brian Road along Carleton Road, St Aidan's Park, Haverty Road and Marglann Marino, all in the County of Dublin and within the Dublin City Council (DCC) administrative area. From here the Proposed Scheme ties into a separate project, the Clontarf to City Centre Cycle & Bus Priority Project currently, being developed by DCC. The Clontarf to City Centre Cycle & Bus Priority Project will provide segregated cycling facilities and bus priority infrastructure along a 2.7km route that extends from Clontarf Road at the junction with Alfie Byrne Road, to Amiens Street at the junction with Talbot Street in the City Centre. The start of the scheme ties into a separate project being developed by DCC namely, The Belmayne Main Street and Belmayne Avenue Scheme, which provides bus and cycle linkages to Clongriffin Dart Station.
- 30 The Clontarf to City Centre Cycle & Bus Priority Project is expected to begin construction in 2022.
- 31 The Proposed Scheme includes an upgrade of the existing bus priority and cycle facilities associated with the Malahide Road Quality Bus Corridor (QBC), which has been in place since 1999. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane, particularly in the outbound direction resulting in improved journey time reliability. To facilitate bus journey time reliability the existing roundabouts at Priorswood Road/ Blunden Drive and Ardlea Road/ Gracefield Road (R808) will be removed and replaced with traffic signal controlled junctions. Throughout the Proposed Scheme, bus stops will be enhanced to improve the overall journey experience for bus passengers.

- 32 Throughout the Proposed Scheme, cycle facilities will be substantially improved with segregated cycle tracks provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions. Where space for a segregated cycle track is not available on the main corridor an alternative cycle route via quiet roads is proposed, such as via the junction with Malahide Road-Brian Road along Carleton Road, St Aidan's Park, Haverly Road and Marglann Marino.
- 33 Moreover, pedestrian facilities will be upgraded and additional signalised crossings are provided. In addition, landscape improvements will be made at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrians experience, and example of this can be seen at the junction adjacent to Donnycarney Church.
- 34 The main characteristics of the Construction Phase of the Proposed Scheme that have potential for ecological impact are:
- Site preparation and clearance;
 - Removal of existing boundaries, pavements, lighting columns, bus stops, and signage;
 - Protection and / or diversion of buried services;
 - Road widening, pavement reconstruction, and kerb improvements;
 - Reconfiguration of traffic lanes throughout;
 - Installation of new bus stops and junction / roundabout modification;
 - Property boundary reinstatement, signage replacement; relocation of and/or installation of lighting columns; and
 - Landscaping and tree planting, and reinstatement of temporary land acquisitions.

3.1.2 Surface Water Drainage Infrastructure

- 35 The drainage system for the Proposed Scheme will discharge to four main surface water receptors, the Santry_020, Mayne_010, North Bull Island transitional water body and the Tolka Estuary, before ultimately draining to Dublin Bay and Mayne Estuary. All drainage outfall discharges to surface waters represent point discharges. During operation there will be a net increase of 1,440m² in the impermeable area ultimately discharging to Dublin Bay and a net increase of 273m² in the impermeable area ultimately discharging to Baldoyle Bay. The drainage design principles ensure that all runoff from increases in impermeable areas will be attenuated and there will be no net increase in the surface water flow rates discharged to these receptors.

3.1.3 Construction Compounds

- 36 The Construction Compound CL1 will be located at Buttercup Park adjacent to R107 Malahide Road for the duration of the Proposed Scheme's Construction Phase. The Construction Compound will be located at wintering birds survey site CBC0001WB002.
- 37 Construction Compound CL1 will be the main Construction Compound servicing the Proposed Scheme. This Construction Compound will be used to store materials, plant and equipment, to manage the activities from and to provide welfare facilities for construction personnel. It is anticipated that crushing and re-use of certain materials, primarily concrete and excavated rock, may take place onsite during the Construction Phase of the Proposed Scheme.
- 38 The Construction Compound will be in place for the duration of the Construction Phase of the Proposed Scheme. The compound will be dismantled and the site returned to its existing condition on completion of the Construction Phase.

3.1.4 Estimates Project Duration

- 39 The duration of the Construction Phase is estimated to be of the duration of 24 months.

3.1.5 Operational Phase

40 The main characteristics of the Operational Phase of the Proposed Scheme that have potential for likely significant effects on European sites and their QI / SCI include:

- The presence and operation (traffic) of the road;
- The presence of additional lighting; and,
- Routine maintenance

The Proposed Scheme is not directly connected with, nor necessary to the conservation management of any European site(s).

3.2 Overview of the Receiving Environment

3.2.1 European sites

41 The Proposed Scheme does not overlap with any European site. The nearest European site to the Proposed Scheme is South Dublin Bay and Tolka Estuary SPA, located 0.5km east of the Proposed Scheme.

42 The Proposed Scheme terminates at Mayne River Avenue, c. 300m south of the Mayne_010. The Proposed Scheme will be connected to the Mayne_010 via the existing surface water drainage network. There are two European sites located in the Mayne Estuary transitional waterbody that are downstream of the Proposed Scheme. These European sites are Baldoyle Bay SAC and Baldoyle Bay SPA and have been included in the Zol.

43 There are eight European Sites located in Dublin Bay which are hydrologically connected to the Proposed Scheme via the Santry_020, Wad River, and pipes which discharge directly into the bay. These European Sites are: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Island SPA.

44 There are twelve SPAs designated for SCI species that are known to forage and / or roost at inland sites across Dublin City and / or utilise Dublin Bay: Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Ireland's Eye SPA, Lambay Island SPA, Howth Head Coast SPA, Dalkey Islands SPA, Rockabill SPA, and The Murrough SPA.

45 In addition, Lambay Island SAC and Rockabill to Dalkey Island SAC are designated for mobile QI species known to utilise the Dublin Bay and the Mayne Estuary.

46 All of the European sites present in the vicinity of the Proposed Scheme are shown on Figure 1 at the end of this report. The QIs / SCIs of the European sites in the vicinity of the Proposed Scheme are provided in Appendix I.

3.2.2 Habitats

47 The Proposed Scheme is located in a highly urbanised environment. Habitats present in the footprint of the Proposed Scheme include the following:

- Flower beds and borders (BC4);
- Stone walls and other stonework (BL1);
- Buildings and artificial surfaces (BL3);
- Spoil and bare ground (ED2);
- Recolonising bare ground (ED3);
- Depositing / lowland rivers (FW2);
- Amenity Grassland (Improved) (GA2);
- Dry calcareous and neutral grassland (GS1);

- Residential;
- Scattered trees and parkland (WD5);
- Hedgerows (WL1);
- Treelines (WL2);
- Scrub (WS1); and
- Ornamental / non-native shrub (WS3).

3.2.3 Flora and Fauna Species

- 48 No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.
- 49 There were no areas of non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 identified along or adjacent to the Proposed Scheme during field surveys. However, the desk study returned records of four species listed on the Third Schedule within 1km of the Proposed Scheme. These records include giant hogweed *Heracleum mantegazzianum* along the Santry_020 at Edenmore in 2009, Canadian waterweed *Elodea canadensis* along the Santry River at Cadbury's in 2009, Japanese knotweed *Reynoutria japonica* at Philipsburgh Avenue Marino in 2018 and three-cornered garlic *Allium triquetrum* at Mount Temple in 2016. These species were not found to be present within the footprint of the Proposed Scheme during the field surveys.

3.2.3.1 Otter

- 50 No signs of otter, an Annex II species, were recorded during surveys within the footprint of the Proposed Scheme.
- 51 The desk study found that otter are known to occur within 1km of the Proposed Scheme along the River Mayne and in the upper reaches of the Santry River ¹¹.
- 52 The nearest European site for which this species is designated is the Wicklow Mountains SAC, which is located approximately 14.4km south of the Proposed Scheme. Otter territories are within the range of c. 7.5km for females and can reach up to 21 km for males via hydrological pathways (O' Neill et al., 2009). The River Dodder and Liffey Estuary provide the key pathway to Wicklow Mountains SAC, whereas the Proposed Scheme will discharge into the Tolka Estuary. Wicklow Mountains SAC is located within a different sub-catchment (Dodder_SC_010) to the Proposed Scheme (Santry 10 Mayne_SC_010). As such, populations of otter within the footprint of the Proposed Scheme are not connected to the SAC population.

3.2.3.2 Marine mammals

- 53 The Proposed Scheme is hydrologically connected to Dublin Bay via direct pipes, the Santry_020, Wad River, Tolka Estuary, and North Bull Island and Mayne Estuary transitional water bodies via the Mayne_010. Harbour seal, grey seal, and harbour porpoise are known to be present in Dublin Bay and in the Mayne Estuary. Both seal species are listed on Annex II of the habitats directive and harbour porpoise are listed on Annex IV of the Habitats Directive. The nearest European site for which harbour seal and grey seal have been designated is Lambay Island SAC located approximately 12.2km from the Proposed Scheme. The nearest European site for which harbour porpoise has been designated is Rockabill to Dalkey Island SAC located approximately 5.5km from the Proposed Scheme.

¹¹ Macklin, R., Brazier, B. & Sleeman, P. (2019). *Dublin City otter survey. Report prepared by Triturus Environmental Ltd. for Dublin City Council as an action of the Dublin City Biodiversity Action Plan 2015- 2020.*

3.2.3.3 Kingfisher

- 54 Kingfisher were not recorded during surveys within the footprint of the Proposed Scheme.
- 55 The desk study found that kingfisher *Alcedo atthis*, an Annex I species, are known to occur within 1km of the Proposed Scheme and across the wider study area. In particular, a population of kingfisher are reported to be present along the Santry River¹².
- 56 The nearest European site for which this species is designated is River Boyne and River Blackwater SPA, which is located approximately 37.8km north of the Proposed Scheme. Kingfisher within close proximity to the Proposed Scheme are not part of SCI populations.

3.2.3.4 Other Birds

- 57 The desk study returned records of three breeding and wintering gull species within 300m of the Proposed Scheme which may use inland amenity grassland feeding sites including black-headed gull *Chroicocephalus ridibundus*, herring gull *Larus argentatus*, lesser black-backed gull *Larus fuscus*.
- 58 The desk study returned records of a total of 79 breeding bird species across the study area (i.e. Grid Squares O13, O23 and O24). Records included 10 species listed under Annex I of the Birds Directive and 39 SCI species. The desk study returned records of a total of 52 wintering bird species in the wider study area (i.e., Grid Squares O13 and O14). Records included four species listed under Annex I of the Birds Directive and 37 SCI species. The majority of wintering birds identified in the desk-based review are typically found in coastal, estuarine and intertidal habitats including the Tolka Estuary, North Bull Island transitional water body, and Dublin Bay. A desk study of lands within 300m of the Proposed Scheme returned records of eight SCI wintering bird species which may use inland amenity grassland feeding sites, including light-bellied brent goose, lapwing, curlew, oystercatcher, black-tailed godwit, herring gull, black-headed gull and lesser-black-backed gull.
- 59 A review of a study into light-bellied brent goose inland feeding sites¹³ has identified no known inland wintering bird feeding sites in the footprint of the Proposed Scheme. There are 11 known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e., the disturbance ZoI. The known inland wintering bird feeding sites, along with their relative level of importance¹⁴ to the brent goose population (as assessed in 2017) and distances from the Proposed Scheme are as follows:
- Clontarf Golf Club (High Importance), adjacent to the Proposed Scheme;
 - Marino / Ardscoil Ris (Major Importance), adjacent to the Proposed Scheme;
 - Coolock / O'Toole's GAA (Major Importance), located approximately 14m from the Proposed Scheme;
 - Coolock / Chanel College (Major Importance), located approximately 25m from the Proposed Scheme;
 - Parnell Park (Moderate Importance), located approximately 89m from the Proposed Scheme;
 - Ayrfield Park (High Importance), located approximately 117m from the Proposed Scheme;

¹² DCC (2015) *Dublin City Biodiversity Action Plan 2015-2020*.

¹³ Cutts et al., (2009) and Wright et al., (2010).

¹⁴ *Major importance site 401+ geese; high importance site 51 to 400 geese; and, moderate importance site 1 to 50 geese as defined by Benson's study in 2009. Benson (2009) Use of Inland Feeding Sites by Light-bellied Brent Geese in Dublin 2008-2009: A New Conservation Concern?* Irish Birds 8: 563-570.

- Fairview Park (Major Importance), located approximately 120m from the Proposed Scheme;
- Artane / St. David's College (Major Importance), located approximately 130m from the Proposed Scheme;
- Coolock/Rathvale Drive (High Importance), located approximately 157m from the Proposed Scheme;
- Marino/Mount Temple School (Major Importance), located approximately 184m from the Proposed Scheme; and
- Donnycarney/St. Vincent's GAA (Major Importance), located approximately 299m from the Proposed Scheme.

60 A number of SPAs have been included for Stage Two Appropriate Assessment as it cannot be concluded that their Special Conservation Interest species do not use areas in the vicinity of the Proposed Scheme as ex-situ habitat.

3.2.4 Hydrology

- 61 The Proposed Scheme crosses two watercourses, the Santry_020, and the Wad River, both discharging into the Tolka Estuary, North Bull Island transitional water body, and Dublin Bay. Surface waters will also drain to Dublin Bay via existing drainage across the Proposed Scheme. Dublin Bay contains eight European sites: North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Island SPA. In the northern section, the Proposed Scheme terminates at Mayne River Avenue, approximately 300m south of the River Mayne. The Proposed Scheme is hydrologically connected to the Mayne_010 via existing surface water drainage and ultimately discharges into the Mayne Estuary containing Baldoyle Bay SAC and Baldoyle Bay SPA.
- 62 Details on the water quality of each watercourse, as sourced from the Environmental Protection Agency (EPA), and the distances from the proposed crossing point to downstream waterbodies are also provided in **Table 2** below.

Table 2: Water Quality of Watercourses/ Waterbodies in the Vicinity of the Proposed Scheme

Watercourse	Location in relation to the Proposed Scheme	EPA Q-Values (Monitoring Station) and Water Framework Directive Water Quality Status / Risk Score	Name of and Distance to Downstream Waterbodies along with their associated Water Quality
Santry River (Santry_020)	One existing crossing point of the Santry River on the Malahide Road, south of Greencastle Road.	Q2-3 (Clonshaugh Road Bridge) Poor 'At risk'	It flows for approximately 3km, from the crossing point at on the Malahide Road, until it reaches the North Bull Island transitional waterbody. (classified as "Potentially Eutrophic") near Watermill Road, which ultimately drains to Dublin Bay (classified as "Unpolluted").
Mayne River (Mayne_010)	Located approximately 229m north of the Proposed Scheme, where it flows under the Malahide Road at Belmayne.	Q2-3 (Hole in the Wall Road Bridge) Poor 'At risk'	It flows for approximately 3km from its closest point at to the Proposed Scheme, until it reaches the Mayne Estuary transitional waterbody (classified as "Eutrophic") at the Coast Road, which ultimately drains to the Irish Sea Dublin coastal waterbody (classified as "Unpolluted").
Wad River	One existing crossing point at Malahide Road and Collins Road Junction	The Wad River is not a WFD assigned river, therefore has no risk status.	The Wad River is a culverted water body, for its entire length. It drains the area to the south of Dublin Airport and flows south and east before outfalling to the Tolka Estuary transitional water body at Clontarf. (classified as "Potentially Eutrophic") near Watermill Road, which ultimately drains to Dublin Bay (classified as "Unpolluted").
Tolka Estuary	Hydrologically connected to the Proposed Scheme via the Santry_020 and surface water drains	Q-value score N/A Moderate 'At Risk'	Ultimately drains to Dublin Bay (classified as "Unpolluted").
North Bull Island	Hydrologically connected to the Proposed Scheme via the Santry_020, Wad River, and surface water drains	Q-value score N/A Unassigned Status	Ultimately drains to Dublin Bay (classified as "Unpolluted").
Mayne Estuary	Hydrologically connected to the Proposed Scheme via the Mayne_010,	Q-value score N/A Unassigned Status	N/A
Dublin Bay	Hydrologically connected to the Proposed Scheme via the Santry_020, Wad River, Tolka Estuary and North Bull Island transitional water bodies.	Q-value score N/A Good 'Not at Risk'	N/A

3.2.5 Hydrogeology

- 63 Geological Survey of Ireland (GSI) data indicates that the bedrock formation 1:500k in the Proposed Scheme is *“Dark-grey argillaceous & cherty limestone and shale (Calp)”* in the southern section (south of Chanel Road in Artane) and *“Marine shelf & ramp facies; Argillaceous dark-grey bioclastic limestone, subsidiary shale”* in the northern section (north of Chanel Road in Artane).
- 64 The Proposed Scheme transverses one ground waterbody. Environmental data sourced from the EPA for this groundwater body is presented below:

Dublin Ground Waterbody

- For the majority of this area, it is considered to be of *“Good”* Ground Waterbody WFD Status (2010-2015) and *“not at risk”* of failing the WFD groundwater quality objectives for the majority of its area;
- The aquifers located within this ground waterbody and where the Proposed Scheme transverses are classified as *“locally important aquifer - moderately productive only in local zones”* and *“poor aquifer – bedrock which is generally unproductive except for local zones”*.

The vulnerability of the Dublin ground waterbody to human activities ranges from *“High”*, *“Moderate”* to *“Low”* within the footprint of the Proposed Scheme.

3.2.6 Soils & Geology

- 65 The 1:100,000 GSI bedrock geology map of the area indicates that the underlying bedrock along the Proposed Scheme comprises the Lucan Formation- (Calp) dark limestone and shale, the Tober Colleen formation- Calcareous shale, limestone conglomerate and the Malahide formation- Argillaceous bioclastic limestone, shale. The GSI Quaternary subsoils map shows the footprint of the Proposed Scheme is predominantly underlain by made ground, deep and shallow well drained mineral (Mainly Basic) and poorly drained mineral (Mainly Basic) soils. Areas of alluvium are present along the Santry_020 and Mayne_010.

3.3 Assessment of Potential Effects on European Sites

- 66 This section identifies all the potential impacts associated with the Proposed Scheme, examines whether there are any European sites within the ZoI of effects from the Proposed Scheme, and assesses whether there is any potential for the Proposed Scheme to result in a significant effect on any European site, either alone or in combination with other plans or projects.
- 67 In assessing the potential for the Proposed Scheme to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites (i.e., mitigation measures) are not taken into account as part of this Stage One Screening appraisal.

Considering the baseline ecological environment and the extent and characteristics of the Proposed Scheme the following potential impacts have been identified:

- Habitat loss and fragmentation;
- Habitat degradation/effects on QI / SCI species as a result of hydrological impacts;
- Habitat degradation as a result of hydrogeological impacts;
- Habitat degradation as a result of introducing/spreading non-native invasive species;
- Habitat degradation as a result of air quality impacts; and
- Disturbance and displacement impacts.

3.3.1 *Habitat loss and fragmentation*

- 68 The Proposed Scheme does not overlap with any European sites and the nearest European sites with a direct hydrological connection to the Proposed Scheme are North Dublin Bay SAC and North Bull Island SPA which are both located approximately 3km downstream of the proposed crossing point of the Santry_020.
- 69 Special Conservation Interest (SCI) species for which SPAs in the vicinity of the Proposed Scheme have been designated are known to utilise *ex situ* feeding sites in the Dublin area (i.e., Malahide Estuary SPA, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA). A number of potential inland feeding sites within the footprint of the Proposed Scheme were surveyed to inform this assessment, these were located at lands opposite the Hilton Hotel at the junction of Malahide Road/ R135 referred to as CBC0001WB001, Buttercup Park referred to as CBC0001WB002, and Maypark referred to as CBC0001WB003. Of these, Buttercup Park and Maypark were found to support SCI species. The Proposed Scheme will result in the temporary loss of GA2 habitat suitable to support breeding gull and wintering bird species at the Proposed Buttercup Park compound (referred to as CBC0001WB002), a permanent loss of suitable GA2 habitat at the proposed Maypark footpath, and a temporary loss of suitable GA2 habitat at Maypark to facilitate boundary works.
- 70 Therefore, there is potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss/ fragmentation.

3.3.2 *Habitat degradation / effects on QI / SCI species as a result of hydrological impacts*

- 71 The Proposed Scheme is hydrologically connected to Dublin Bay and the Mayne Estuary via the Santry_020, Mayne_010, Wad River and existing pipes which drain to Dublin Bay. The potential release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during construction, or operation, has the potential to affect water quality in the receiving aquatic environment. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge point and therefore impact the downstream environment, i.e., in Dublin Bay and the Mayne Estuary, including the following European sites: Baldoyle Bay SAC, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA. This reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within these European sites, which in turn would negatively affect the SCI bird species that rely upon these habitats as foraging and/or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI bird species. These impacts could potentially occur to such a degree that the conservation objectives of Baldoyle Bay SAC, North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA may be undermined.
- 72 In a worst case scenario, in the absence of mitigation measures, the release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during construction, or operation, also has the potential to affect mobile SCI bird species and QI mammal species that commute, forage and loaf in Dublin Bay i.e., birds associated with Skerries Islands SPA, Rockabill SPA and Lambay Island SPA, Baldoyle Bay SPA, Ireland's Eye SPA, North Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, The Murrough SPA and, marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC. This potential reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within downstream European sites, which in turn would negatively affect the SCI bird species that rely upon these habitats as foraging and/or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI and QI populations.

3.3.3 Habitat degradation as a result of hydrogeological impacts

- 73 Groundwater levels in groundwater dependant habitats may be impacted by the removal of a proportion of an aquifer or dewatering activities associated with excavations which can lead to a temporary change in groundwater levels and flow within the aquifer. Likewise, the mobilisation of contaminants into the aquifer either through accidental spillage or disturbance of contaminated ground during excavation may reduce the quality of the groundwater within the aquifer, also resulting in the degradation of groundwater dependent terrestrial ecosystem and any species that they may support.
- 74 The underlying aquifers are either Locally Important Bedrock Aquifer, Moderately Productive only in Local Zones or Poor Bedrock Aquifer, Moderately Productive only in Local Zones. These types of aquifers are associated with low permeability which decreases with depth. An upper shallow zone of higher permeability may exist in the top few meters and is associated with relatively short flow paths. Therefore any influence on the groundwater as a result of the proposed works will be localised and will not extend to any groundwater dependant habitats which are all located over 400m from any proposed work. The unmitigated hydrogeological Zol of the Proposed Scheme is not considered to extend to any groundwater dependent terrestrial ecosystems linked to European sites. This Zol is determined by the professional judgement of the hydrogeology specialists.
- 75 In summary therefore the Proposed Scheme does not have the potential to result in habitat degradation of the qualifying/special conservation interest species of any European site as the result of hydrogeological impacts.

3.3.4 Habitat degradation as a result of introducing/spreading non-native invasive species

- 76 No non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within, or in close proximity to, the Proposed Scheme. However, there were records of invasive species in the vicinity of the Proposed Scheme returned from the desk study. Therefore, there is potential for invasive species to spread or be introduced, during construction and / or routine maintenance/management works, to terrestrial habitat areas in European sites downstream in Dublin Bay via the Santry_020 and / or River Wad, or pipes that discharge directly to the bay (i.e., North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). The introduction and/or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites.
- 77 It is not predicted that that invasive species could spread to European sites which are located a significant distance from the outfall locations of the Santry River or River Mayne, or the potential outfall locations of the pipes that drain directly to Dublin Bay (i.e., Howth Head SAC, Howth Head Coast SPA, Rockabill and Dalkey Island SAC and Dalkey Islands SPA).

3.3.5 Habitat degradation as a result of air quality impacts

- 78 A reduction in air quality within the immediate vicinity of the construction works may occur as a consequence of dust deposition associated with these construction activities. This includes reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Furthermore, emissions from car exhausts, and the deposition of particulate matter and heavy metals produced by engine, brake and tyre wear, can contribute to increased deposition of pollutants such as oxides of nitrogen (NO_x, NO_s), volatile organic compounds (VOCs), particulate matter (PM), heavy metals

(HM) and ammonia (NH₄) in the vicinity of a road carriageway. This can affect the ecosystems and vegetation present, influencing plant growth rates and species composition, diversity, and abundance.

- 79 The unmitigated Zol for air quality effects arising from the Proposed Scheme has the potential to extend 50m from the Proposed Scheme boundary, and 500m from construction compounds during the Construction Phase, and up to 200m the Proposed Scheme boundary during the operational phase. There are no European sites present within these distances.
- 80 A change in AADT (Annual Average Daily Traffic) flows greater than 1,000 is predicted to occur on Clontarf Road where cars will be redirected onto the local road network once the Proposed Scheme is in operation. This lies adjacent to South Dublin Bay and River Tolka Estuary SPA. As such the Proposed Scheme has the potential to result in habitat degradation of the qualifying / special conservation interest species / habitats of South Dublin Bay and River Tolka Estuary SPA during the Operational Phase of the Proposed Scheme. There is also the potential for in combination effects to occur in association with other activities/plans/projects.

3.3.6 Disturbance and displacement impacts

- 81 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction of the Proposed Scheme could result in the disturbance to and / or displacement of fauna species present within the vicinity of the Proposed Scheme. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m¹⁵. For wintering birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m¹⁶, as noise levels associated with general construction activities would attenuate to close to background levels at that distance. There are no European sites within the disturbance Zol of the Proposed Scheme.
- 82 Although no signs of otter were recorded during field surveys of the Proposed Scheme, the Santry_020 is known to support otter, an Annex II and IV mammal species. The nearest SAC to the proposed development site for which otter has been designated is Wicklow Mountains SAC which is located approximately 14.4km south. Research carried out by Ó Néill et al. (2009) on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged 7.5km while male otter home ranges varied between 7-19km. While the Proposed Scheme is within the potential home range of male otter, the Proposed Scheme is located in a different catchment to the Wicklow Mountains SAC, any otter present in the vicinity of the Proposed Scheme are not associated with the QI populations of any European site.
- 83 Although no signs of kingfisher were recorded during field surveys of the Proposed Scheme, kingfisher, an Annex I bird species, are known to be present along the Santry_020. Any kingfisher populations which are present in the vicinity of the Proposed Scheme are not considered to be associated with the SCI populations of any European site. Kingfisher territories can extend over approximately 3-5km of a river catchment¹⁷. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA which is

¹⁵ This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual Zol of construction related disturbance likely to be much less in reality.

¹⁶ Current understanding of construction related noise disturbance to wintering waterbirds is based on the research presented in Cutts et al. (2009) and Wright et al. (2010). In terms of construction noise, levels below 50dB would not be expected to result in any response from foraging or roosting birds. Noise levels between 50dB and 70dB would provoke a moderate effect/level of response from birds, i.e. birds becoming alert and some behavioural changes (e.g., reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Noise levels above 70dB would likely result in birds moving out of the affected zone, or leaving the site altogether. At c. 300m, typical noise levels associated with construction activity (BS 5228) are generally below 60dB or, in most cases, are approaching the 50dB threshold.

¹⁷ RSPB. Kingfisher breeding, feeding and territory webpage. Available from: <https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/kingfisher/breeding-feeding-territory/>

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located in a separate catchment approximately 37.8km away, therefore, kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.

- 84 There are a number of SPAs which are designated for SCI species that are known to forage and / or roost at inland sites, such as amenity grassland playing pitches (i.e., Malahide Estuary SPA, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, and The Murrough SPA). These species include light-bellied brent goose, curlew, oystercatcher, black-tailed godwit, black-headed gull, herring gull and lesser black-backed gull. Suitable inland foraging/roosting sites, which these bird species utilise, are located within the potential Zol of the Proposed Scheme (See Section 3.2.3 above).
- 85 In summary therefore the Proposed Scheme has the potential to result in the disturbance/displacement of the qualifying/special conservation interest species of European sites.

3.3.7 Summary

- 86 The hydrological, invasive species, air quality, and disturbance and displacement impacts associated with the Proposed Scheme have the potential to affect the receiving environment and, consequently, have the potential to affect the conservation objectives supporting the qualifying interest/special conservation interests of a European site(s). Therefore, the potential for the Proposed Scheme to have significant effects on a European site(s) cannot be excluded.
- 87 The potential impacts of the Proposed Scheme on the receiving environment, their Zol, and the European sites for which likely significant effects cannot be excluded are summarised in **Table 3** below. In assessing the potential for the Proposed Scheme to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

Table 3: Summary of Analysis of Likely Significant Effects on European Sites

Potential Direct and Indirect Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the Proposed Scheme?
<p>Habitat loss</p> <p>No European sites are at risk of direct habitat loss impacts.</p> <p>There is potential for loss of <i>ex situ</i> inland feeding sites used by SCI bird species.</p>	<p>Yes</p> <p>There are European sites at risk of <i>ex-situ</i> habitat losses:</p> <p>Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA, and The Murrough SPA.</p>
<p>Habitat degradation/ effects on QI / SCI species as a result of hydrological impacts</p> <p>Habitats and species downstream of the Proposed Scheme and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.</p>	<p>Yes</p> <p>There are European sites at risk of hydrological effects associated with the Proposed Scheme</p> <p>North Dublin Bay SAC, South Dublin Bay SAC, Baldoyle Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA.</p>
<p>Habitat degradation as a result of hydrogeological impacts</p> <p>Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the Proposed Scheme.</p>	<p>No</p> <p>There are no European sites at risk of hydrogeological effects associated with the Proposed Scheme</p>
<p>Habitat degradation as a result of introducing/spreading non-native invasive species</p> <p>Habitat areas within, adjacent to, and potentially downstream of the Proposed Scheme.</p>	<p>Yes</p> <p>Although no non-native invasive species were recorded during field surveys, there are records of non-native invasive species present within or adjacent to the Proposed Scheme and, therefore, a risk associated with the Proposed Scheme to downstream European sites from the spread/introduction of non-native invasive species</p> <p>North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA</p>
<p>Air quality impacts</p> <p>Potentially up to 200m from the Proposed Scheme boundary.</p> <p>Indirect impact via a significant change in AADT (Annual Average Daily Traffic) flows is predicted to occur on</p>	<p>Yes</p> <p>Although no European sites lie within 200m of the Proposed Scheme, South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows.</p>

Potential Direct and Indirect Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the Proposed Scheme?
Clontarf Road where cars will be redirected once the Proposed Scheme is in operation.	
Disturbance and displacement impacts Potentially up to several hundred metres from the Proposed Scheme, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the Proposed Scheme, taking into account the sensitivity of the qualifying interest species to disturbance effects	Yes There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the Proposed Scheme. However, there are ex situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, and The Murrough SPA.

3.4 In-Combination Effects

- 88 This section presents the assessment carried out to examine whether other plans or projects have the potential to act in combination with the Proposed Scheme to have a significant effect on European sites.
- 89 There are 18 European sites within the Zol of the Proposed Scheme at outlined above. These are North Dublin Bay SAC; South Dublin Bay SAC; Baldoyle Bay SAC; Howth Head SAC; Rockabill to Dalkey Island SAC; Lambay Island SAC; Howth Head Coast SPA; Dalkey Islands SPA; Rockabill SPA; North Bull Island SPA; South Dublin Bay and River Tolka Estuary SPA; Ireland’s Eye SPA; Malahide Estuary SPA; Baldoyle Bay SPA; Rogerstown Estuary SPA; Skerries Islands SPA; Lambay Island SPA; and The Murrough SPA.
- 90 All other European sites fall beyond the Zol of the Proposed Scheme. Therefore, there is no potential for any other plans or projects to act in combination with the Proposed Scheme to adversely affect the integrity of any other European sites.
- 91 The in-combination assessment involved first identifying those plans and projects which have the potential to impact on those European sites within the Zol of the Proposed Scheme.
- 92 Those plans or projects with the potential to impact upon these European sites are any national, regional and local land use plans or any existing or proposed projects that could potentially affect the ecological environment within the Zol of the Proposed Scheme. These are presented in **Table 4** and **Table 5**.

Table 4: Land Use Plans and Programmes Considered for the In-Combination Assessment

National Plans
National Energy & Climate Plan 2021-2030
National Spatial Strategy for Ireland 2002-2020;
Project Ireland 2040 – Building Ireland’s Future
National Transport Authority Integrated Implementation Plan 2019-2024
Smarter Travel a Sustainable Transport Future 2009-2020
National Biodiversity Action Plan 2017-2021
River Basin Management Plan 2018-2021
National Air Pollution Control Programme (NAPCP) Draft 2019
National Marine Planning Framework 2018
Water Services Strategic Plan 2015
Regional Plans
Regional Planning Guidelines for the Greater Dublin Area Vol I & II 2010-2022;
Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031
Greater Dublin Area Cycle Network Plan 2013
Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016
County/Local Plans
Fingal Development Plan 2017-2023
Fingal Biodiversity Action Plan 2010-2015
Fingal County Council Climate Action Plan 2019-2024
<ul style="list-style-type: none"> • Donabate Local Area Plan 2016 • Rivermeade Local Area Plan 2018 • Barnhill Local Area Plan 2019 • Kinsaley Local Area Plan 2019 • Dublin Airport Local Area Plan 2020
Dublin City Development Plan 2016-2022
Dublin City Biodiversity Action Plan 2015-2020
Dublin City Council Climate Action Plan 2019-2024
<ul style="list-style-type: none"> • Clongriffin-Belmayne Local Area Plan 2012-2018 • George’s Quay Local Area Plan 2012-2022 • Ballymun Local Area Plan 2017 • The Liberties Local Area Plan 2009-2020 • Naas Road Local Area Plan 2013-2023 • Park West- Cherry Orchard Local Area Plan 2019
South Dublin County Council Development Plan 2016-2022
Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation
South Dublin County Council Climate Change Action Plan 2019-2024
<ul style="list-style-type: none"> • Tallaght Town Centre Local Area Plan 2020 • Liffey Valley Town Centre Local Area Plan 2008
Dún Laoghaire- Rathdown Development Plan 2016-2022; Dún Laoghaire- Rathdown Development Plan (2022-2028)- Draft for public consultation
Dún Laoghaire- Rathdown Biodiversity Plan 2009-2013; Dún Laoghaire- Rathdown Biodiversity Plan (current draft under review)

Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024

- Deansgrange Local Area Plan 2010-2020
- Stillorgan Local Area Plan 2018-2024
- Blackrock Local Area Plan 2015-2021
- Woodbrook-Shanganagh Local Area Plan 2017-2024

Wicklow County Development Plan 2016-2022

Wicklow Biodiversity Plan 2010-2015

Wicklow County Council Climate Change Adaptation Strategy 2019

- Bray Municipal District Local Area Plan 2018-2024
- Bray & Environs Transport Study 2019
- Bray Town Development Plan 2011-2017

Table 5: Projects Considered for the In-Combination Assessment

- Southern Port Access Route (SPAR)
- Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7/M9) to provide an additional lane in each direction
- Enhancements of the N2/M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non-motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles
- N3 Castaheany Interchange Upgrade: refer to “Details” link
- Reconfiguration of the N7 from its junction with the M50 to Naas, to rationalise junctions and accesses in order to provide a higher level of service for strategic traffic travelling on the mainline
- N3–N4: Barnhill to Leixlip Interchange
- Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction
- Clonburris SDZ roads development: refer to “Details” link
- DART+ Programme West
- Porterstown Distributor Link Road
- Widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee), plus related junction and necessary changes to the existing national road network
- Lucan LUAS
- DART+ Programme South West
- Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required
- Finglas LUAS (Green Line extension Broombridge to Finglas)
- DART+ Tunnel Element (Kildare Line to Northern Line)
- Potential Metro South alignment: SW option
- LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1
- Oldtown-Mooretown Western Distributor Link Road
- Potential Metro South alignment: Charlemont to Sandyford
- Poolbeg LUAS
- Leopardstown Link Road Phase 2
- Development of a road link connecting from the southern end of the Dublin Port Tunnel to the South Port area, which will serve the South Port and adjoining development areas
- Poolbeg SDZ roads development: refer to “Details” link
- Glenamuck District Distributor Road
- DART+ Programme Coastal North
- Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) plus related junction and other changes
- Cherrywood SDZ roads development: refer to “Details” link

- DART+ Programme Coastal South
- R126 Donabate Relief Road: R132 to Portrane Demesne
- Extension of LUAS Green Line to Bray
- Capacity enhancement and reconfiguration of the M11/N11 from Junction 4 (M50) to Junction 14 (Ashford) inclusive of ancillary and associated road schemes, to provide additional lanes and upgraded junctions, plus service roads and linkages to cater for lo
- MetroLink
- Greater Dublin Drainage (GDD)
- Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements)
- Dublin Array - offshore windfarm
- Air insulated switchgear 110kV transmission substation. Platin, Duleek
- Construction of a new distributor road and junction to the southwest of Kells town centre. Kells
- Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown.
- FCC/12/0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide.
- Alternations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp
- 110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and waste water holding tank and security fencing. 110kV overhead line grid connection cabling, upgrade of existing tracks and provision of new site access roads with all associated site development and ancillary works. Timahoe East
- 15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings. Dublin Port.
- A residential development with ancillary commercial uses (retail unit, café and crèche) partially comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin.
- The proposed development for Brexit Infrastructure will consist of - Installation of porta-cabin structures. Resurfacing and amalgamation of existing yards. Parking for heavy good vehicles, cars and bicycles. Gates, signage and all ancillary site works. Dublin Port.
- Provision of a double circuit 220kV transmission line and a 220kV gas insulated switchgear (GIS) substation along with associated and ancillary works. Townlands of Cruiserath, Goddamendy and Bay, Co. Dublin.
- Construction of a 2 storey 110kV Gas Insulated Switchgear (GIS) substation, underground cable and all associated and ancillary site works. Former Clyde House, IDA Blanchardstown Business and Technology Park, Snugborough Road, Blanchardstown, Dublin 15
- Flood alleviation works along and adjacent to the River Poddle extending from the upper reaches of the river. Tymon North, Tallaght to Merchant's Quay, Dublin.
- Aviation fuel pipeline. Location: Inlet Station: Team CV, Bond Drive, Dublin Port, Dublin 1 to Dublin Airport, Co. Dublin
- Park development project at the Racecourse Park
- 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
- Swords to City Centre Core Bus Corridor Scheme
- Ballymun / Finglas to City Centre Core Bus Corridor Scheme
- Blanchardstown to City Centre Core Bus Corridor Scheme
- Lucan to City Centre Core Bus Corridor Scheme
- Liffey Valley to City Centre Core Bus Corridor Scheme
- Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- Kimmage to City Centre Core Bus Corridor Scheme
- Bray to City Centre Core Bus Corridor Scheme
- Belfield / Blackrock to City Centre Core Bus Corridor Scheme
- Ringsend to City Centre Core Bus Corridor Scheme

- A range of Strategic Housing Developments
- A range of Irish Water Projects

- 93 There is the potential for developments listed in **Table 5**, or those implemented under a range of land use and other plans listed in **Table 4**, to lie either within European sites, or be situated in a location where they may be within the ZoI of the European sites which also fall within the ZoI of the Proposed Scheme.
- 94 Key development projects with potential for in-combination effects due to their size, nature and/or location include other Core Bus Corridor Schemes, MetroLink, upgrades to or new rail infrastructure, utility infrastructure including proposed or consented water utility improvement.
- 95 The potential for in combination effects between these plans and projects and the Proposed Scheme arises via the same pathways for potential effects as identified above in **Table 3** for the Proposed Scheme (i.e. hydrological, invasive species, air quality, and disturbance and displacement effects) which could act in combination with similar effects and pathways arising from the various plans.
- 96 Therefore the potential for the following in combination effects arising from plans cannot be ruled out:
- Habitat fragmentation (for example European sites at risk of ex-situ habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);
 - Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);
 - Habitat degradation as a result of introducing/spreading non-native invasive species;
 - Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows from the Proposed Scheme); and,
 - Disturbance and displacement impacts (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA

4 Conclusions of Screening Assessment Process

- 97 Following an examination, analysis and evaluation of the all relevant information, in view of best scientific knowledge, and applying the precautionary principle, it can be concluded that there is the possibility for significant effects on the following European sites, in the absence of mitigation, either arising from the project alone or in combination with other plans and projects, as a result of hydrological impacts, invasive species, air quality impacts and disturbance and displacement impacts: North Dublin Bay SAC, South Dublin Bay SAC, Baldoyle Bay SAC; Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Howth Head Coast SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Dalkey Islands SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland’s Eye SPA, Lambay Island SPA and The Murrough SPA.
- 98 In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.

Therefore, it is the professional opinion of the authors of this report that the application for approval for the Proposed Scheme does require a Stage Two Appropriate Assessment in respect of the above-listed 18 no. European sites (6 no. SACs and 12 no. SPAs) and, consequently, the preparation of a Natura Impact Statement (NIS).

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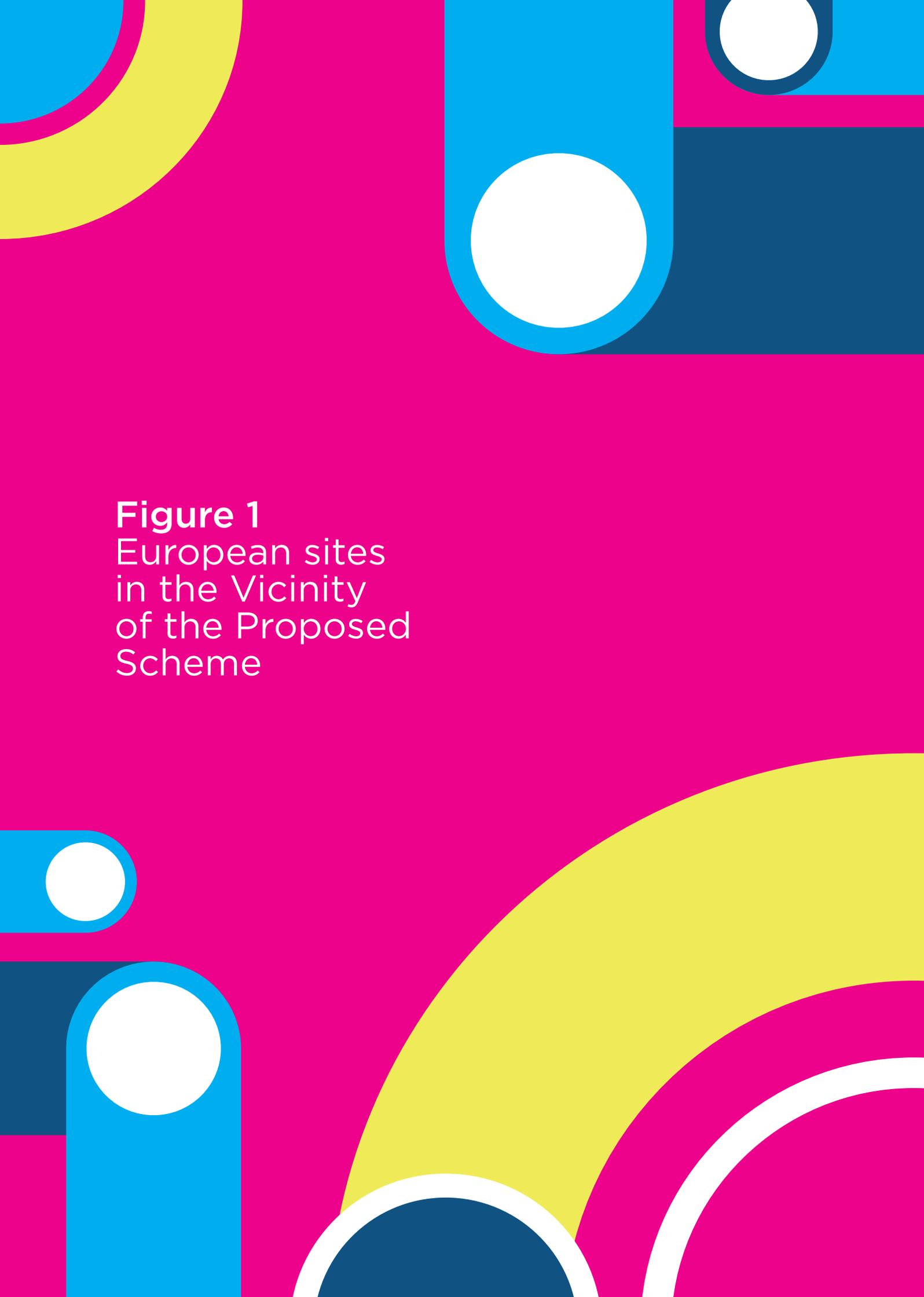
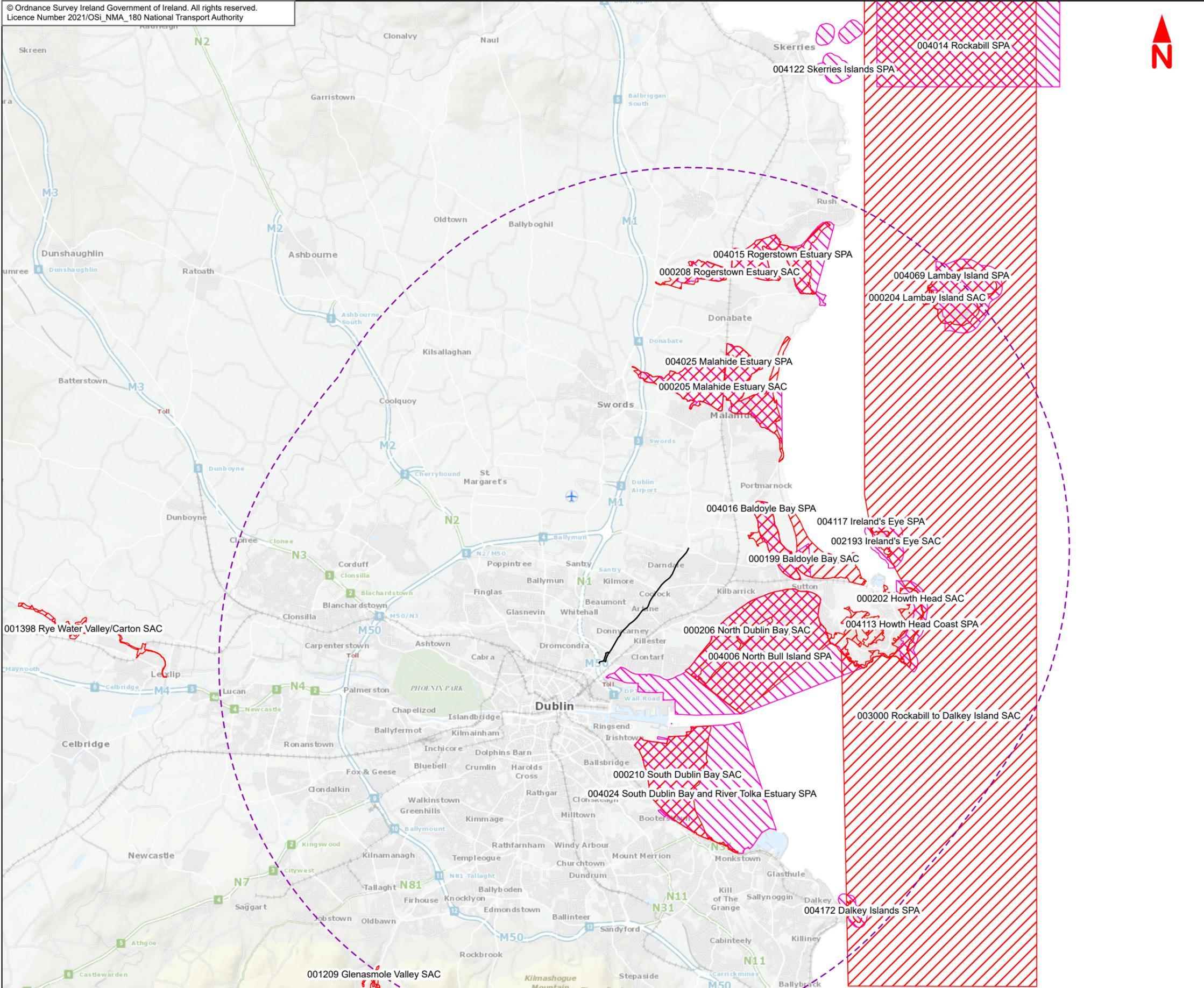


Figure 1
European sites
in the Vicinity
of the Proposed
Scheme



- Legend :**
- Clongriffin to City Centre Core Bus Corridor Scheme
 - 15km from Proposed Scheme
 - Special Protection Areas (SPA)
 - Special Area of Conservation (SAC)

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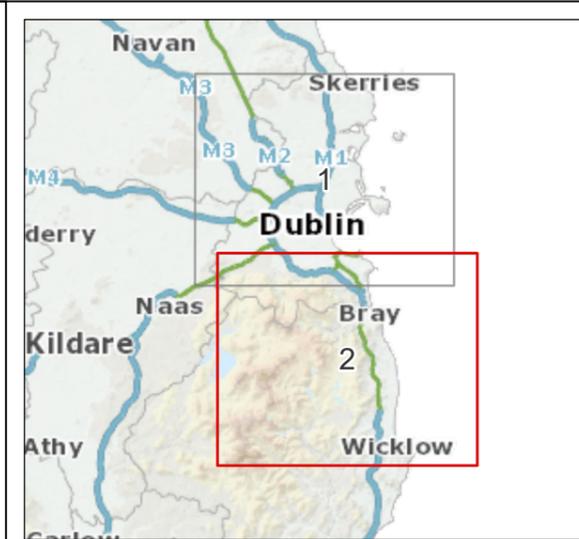
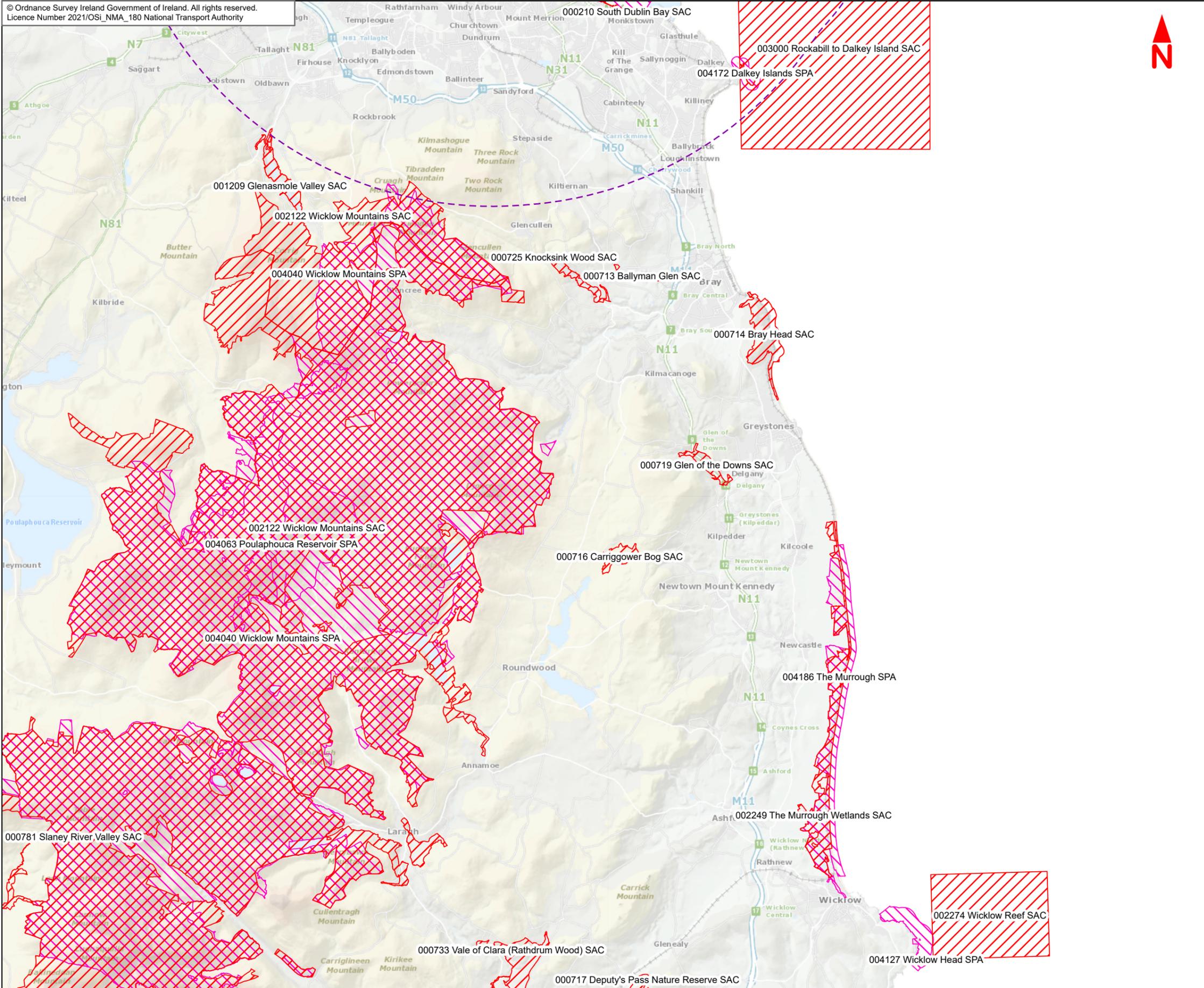
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Date 11/30/2021	Scale @ A3 1:150 000	Drawn EK	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		

Programme Title BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS				
Drawing Title Figure 1 European sites in the Vicinity of the Proposed Scheme				
Drawing File Name BCIDE-JAC-ENV BD-001_XX_00-DR-GG-2001	Sheet Number 1 of 2	Status A	Rev M01	



- Legend :**
- Clongriffin to City Centre Core Bus Corridor Scheme
 - 15km from Proposed Scheme
 - Special Protection Areas (SPA)
 - Special Area of Conservation (SAC)

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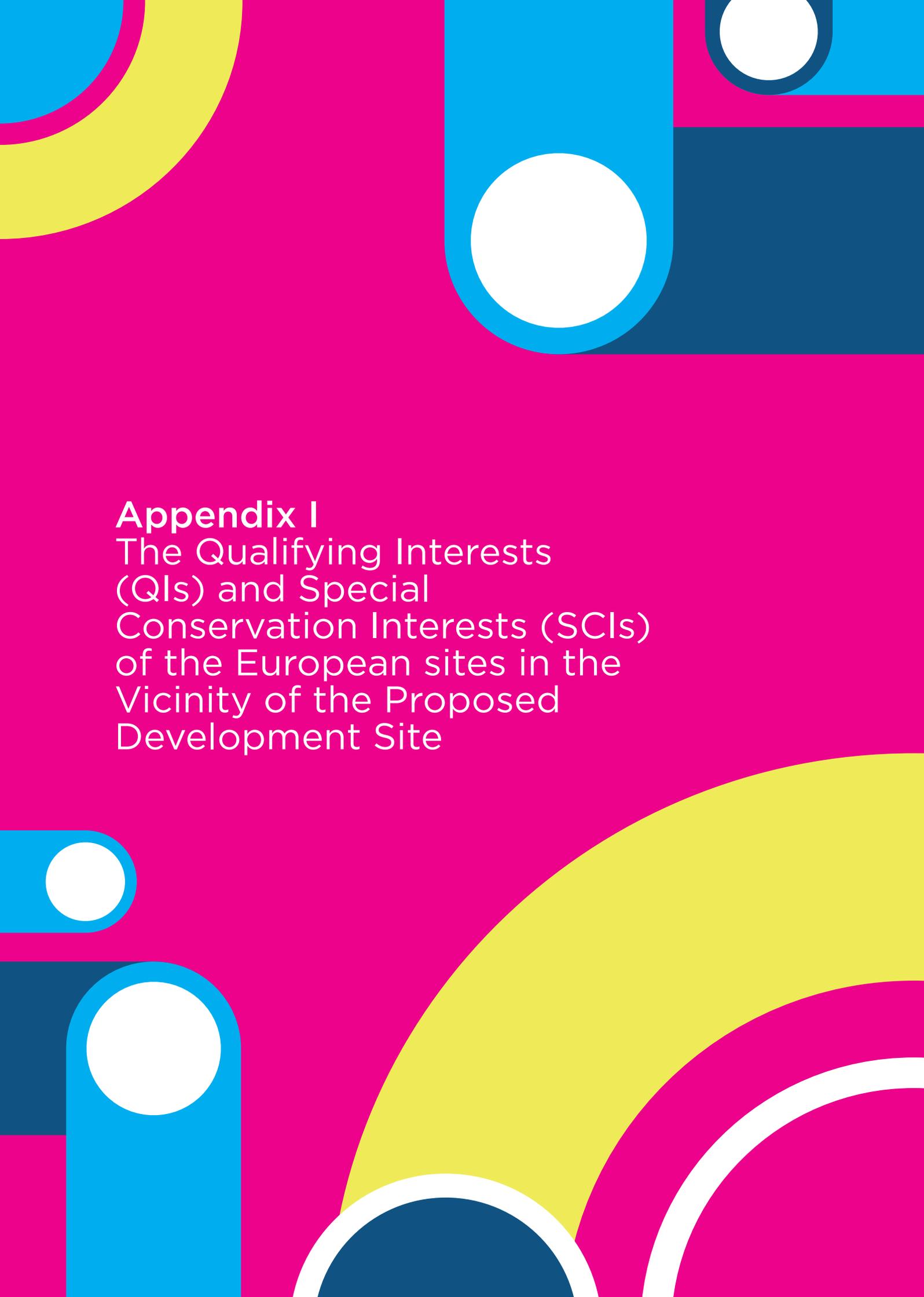


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Client
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Date 11/30/2021	Scale @ A3 1:150 000	Drawn EK	Checked PW	Approved DK
Project Code BCIDE	Originator Code JAC	QMS Code		
Drawing File Name BCIDE-JAC-ENV_BD-0001_XX_00-DR-GG-2091	Sheet Number 2 of 2	Status A	Rev M01	



Appendix I
The Qualifying Interests
(QIs) and Special
Conservation Interests (SCIs)
of the European sites in the
Vicinity of the Proposed
Development Site

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the Vicinity of the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
Special Area of Conservation (SAC)	
<p>North Dublin Bay SAC [000206] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1395 Petalwort <i>Petalophyllum ralfsii</i> 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) 2190 Humid dune slacks</p> <p><i>S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: North Dublin Bay SAC 000206</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 2.7km south east the Proposed Scheme</p>
<p>Baldoyle Bay SAC [000199] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 <i>Salicornia</i> and other annuals colonizing mud and sand 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>NPWS (2012) <i>Conservation Objectives: Baldoyle Bay SAC 000199</i>. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p>approximately 2.4km east of the Proposed Scheme</p>
<p>South Dublin Bay SAC [000210] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 2110 Embryonic shifting dunes</p> <p><i>S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: South Dublin Bay SAC 000210</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 3.3km south east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>Malahide Estuary SAC [000205] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand 1320 Spartina swards (<i>Spartinion maritimae</i>) 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p><i>S.I. No. 91/2019 - European Union Habitats (Malahide Estuary Special Area Of Conservation 000205) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: Malahide Estuary SAC 000205</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 4.9km north east of the Proposed Scheme</p>
<p>Howth Head SAC [000202] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths</p> <p><i>S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021</i>. NPWS (2016) <i>Conservation Objectives: Howth Head SAC 000202</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>approximately 6.4km east of the Proposed Scheme</p>
<p>Rogerstown Estuary SAC [000208] 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1310 Salicornia and other annuals colonising mud and sand 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p><i>S.I. No. 286/2018 - European Union Habitats (Rogerstown Estuary Special Area of Conservation 000208) Regulations 2018</i> NPWS (2013) <i>Conservation Objectives: Rogerstown Estuary SAC 000208</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 10.2km north the Proposed Scheme</p>
<p>Rockabill to Dalkey Island SAC [003000] 1170 Reefs 1351 Harbour porpoise <i>Phocoena phocaena</i></p> <p><i>S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019</i></p>	<p>approximately 7.2km east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>NPWS (2013) <i>Conservation Objectives: Rockabill to Dalkey Island SAC 003000</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Glenasmole Valley SAC [001209] 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)* <i>S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021</i> NPWS (2021) <i>Conservation objectives for Glenasmole Valley SAC 001209</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 14.8km south east of the Proposed Scheme</p>
<p>Ireland's Eye SAC [002193] 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts <i>S.I. No. 501/2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017</i> NPWS (2017) <i>Conservation Objectives: Ireland's Eye SAC 002193</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>approximately 7.2km north east of the Proposed Scheme</p>
<p>Wicklow Mountains SAC [002122] 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i> 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 <i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i> 6230 Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation</p>	<p>approximately 14.4km south east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 1355 <i>Lutra lutra</i> (Otter)</p> <p>NPWS (2017) <i>Conservation Objectives: Wicklow Mountains SAC 002122</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	
<p>Lambay Island SAC [000204] 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal <i>Halichoerus grypus</i> 1365 Harbour seal <i>Phoca vitulina</i></p> <p><i>S.I. No. 294/2019 - European Union Habitats (Lambay Island Special Area Of Conservation 000204) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: Lambay Island SAC 000204</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 13.4km north east of the Proposed Scheme</p>
<p>Special Protection Area (SPA)</p>	
<p>North Bull Island SPA [004006] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A052 Teal <i>Anas crecca</i> A054 Pintail <i>Anas acuta</i> A056 Shoveler <i>Anas clypeata</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A144 Sanderling <i>Calidris alba</i> A149 Dunlin <i>Calidris alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A160 Curlew <i>Numenius arquata</i> A162 Redshank <i>Tringa totanus</i> A169 Turnstone <i>Arenaria interpres</i> A179 Black-headed Gull <i>Croicocephalus ridibundus</i> A999 Wetlands & Waterbirds</p> <p><i>S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006) Regulations 2010</i>. NPWS (2015) <i>Conservation Objectives: North Bull Island SPA 004006</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 2.7km east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>South Dublin Bay and River Tolka Estuary SPA [004024] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A144 Sanderling <i>Calidris alba</i> A149 Dunlin <i>Calidris alpina</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A162 Redshank <i>Tringa totanus</i> A179 Black-headed Gull <i>Croicocephalus ridibundus</i> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024) Regulations 2010.</i> NPWS (2015) <i>Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1.</i> National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 0.5km south of the Proposed Scheme</p>
<p>Baldoyle Bay SPA [004016] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016) Regulations 2010.</i> NPWS (2013) <i>Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.</i> National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>approximately 2.8km east of the Proposed Scheme</p>
<p>Malahide Estuary SPA [004025] A005 Great Crested Grebe <i>Podiceps cristatus</i> A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A054 Pintail <i>Anas acuta</i> A067 Goldeneye <i>Bucephala clangula</i> A069 Red-breasted Merganser <i>Mergus serrator</i> A130 Oystercatcher <i>Haematopus ostralegus</i></p>	<p>approximately 5.5km north of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A149 Dunlin <i>Calidris alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A162 Redshank <i>Tringa totanus</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025) Regulations 2011.</i> NPWS (2013) <i>Conservation Objectives: Malahide Estuary SPA 004025</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Wicklow Mountains SPA [004040] A098 Merlin <i>Falco columbarius</i> A103 Peregrine <i>Falco peregrinus</i></p> <p><i>S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040) Regulations 2012.</i> NPWS (2021) <i>Conservation objectives for Wicklow Mountains SPA 004040</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 14.7km south west of the Proposed Scheme</p>
<p>Ireland's Eye SPA [004117] A017 Cormorant <i>Phalacrocorax carbo</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i></p> <p><i>S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.</i> NPWS (2021) <i>Conservation objectives for Ireland's Eye SPA 004117</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 7km north-east of the Proposed Scheme</p>
<p>Rogerstown Estuary SPA [004015] A043 Greylag Goose <i>Anser anser</i> A046 Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A056 Shoveler <i>Anas clypeata</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A149 Dunlin <i>Calidris alpina alpina</i></p>	<p>approximately 10.4km north east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>A156 Black-tailed Godwit <i>Limosa limosa</i> A162 Redshank <i>Tringa totanus</i> A999 Wetlands and Waterbirds</p> <p><i>S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.</i> NPWS (2013) <i>Conservation Objectives: Rogerstown Estuary SPA 004015</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Howth Head Coast SPA [004113] A188 Kittiwake <i>Rissa tridactyla</i></p> <p><i>S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.</i> NPWS (2021) <i>Conservation objectives for Howth Head Coast SPA 004113</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 8.3km east of the Proposed Scheme</p>
<p>Dalkey Islands SPA [004172] A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i></p> <p><i>S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010</i> NPWS (2021) <i>Conservation objectives for Dalkey Islands SPA 004172</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 13.1km south east of the Proposed Scheme</p>
<p>Lambay Island SPA [004069] A009 Fulmar <i>Fulmarus glacialis</i> A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i> A043 Greylag Goose <i>Anser anser</i> A183 Lesser Black-backed Gull <i>Larus fuscus</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i> A204 Puffin <i>Fratercula arctica</i></p> <p><i>S.I. No. 242/2010 - European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.</i> NPWS (2021) <i>Conservation objectives for Lambay Island SPA 004069</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 13.3km north east of the Proposed Scheme</p>
<p>Skerries Islands SPA [004122] A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i></p>	<p>approximately 19.2km north east of the Proposed Scheme</p>

Appropriate Assessment Screening Report

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme Site
<p>A046 Brent Goose <i>Branta bernicla hrota</i> A148 Purple Sandpiper <i>Calidris maritima</i> A169 Turnstone <i>Arenaria interpres</i> A184 Herring Gull <i>Larus argentatus</i></p> <p><i>S.I. No. 245/2010 - European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.</i> NPWS (2021) <i>Conservation objectives for Skerries Islands SPA 004122</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	
<p>Rockabill SPA [004014] A148 Purple Sandpiper <i>Calidris maritima</i> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i></p> <p><i>S.I. No. 94/2012 - European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004014)) Regulations 2012.</i> NPWS (2013) <i>Conservation Objectives: Rockabill SPA [004014]</i>. Version 1. Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 19.7km north-east of the Proposed Scheme</p>
<p>The Murrough SPA [004186] A001 Red-throated Diver <i>Gavia stellata</i> A043 Greylag Goose <i>Anser anser</i> A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A050 Wigeon <i>Anas penelope</i> A052 Teal <i>Anas crecca</i> A179 Black-headed Gull <i>Larus ridibundus</i> A184 Herring Gull <i>Larus argentatus</i> A195 Little Tern <i>Sterna albifrons</i> A999 Wetlands and Waterbirds</p> <p><i>S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.</i> NPWS (2021) <i>Conservation objectives for The Murrough SPA 004186</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>approximately 31.4km south of the Proposed Scheme</p>



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