

**Kimmage to City
Centre Core Bus
Corridor Scheme**

**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 in respect of the Kimmage to City Centre Core Bus Corridor Scheme (hereinafter referred to as the Proposed Scheme), has been prepared by Scott Cawley Ltd. on behalf of the National Transport Authority (NTA). 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 Kimmage 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 (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 Appropriate Assessment 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) (hereafter referred to as the '2011 Birds and Habitats Regulations').

For the reasons set out in detail in this Appropriate Assessment Screening Report, a Stage Two **Appropriate Assessment of the Proposed Scheme is required in this instance** as it cannot be concluded 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) (Special Conservation Areas (SACs) and Special Protection Areas (SPAs) in view of the conservation objectives of the following sites: **North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Rockabill 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:
 - Office of the Planning Regulator (OPR) *Practice Note PN01. Appropriate Assessment Screening for Development Management* (OPR, 2021);

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 section 177R of the Planning and Development Act 2001 (as amended) Regulations 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, (d) a candidate special protection area, or (e) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

- *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;
- *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); and
- *Interpretation Manual of European Union Habitats*. Version EUR 28 (European Commission, 2013).

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 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 (i.e. likely significant effects).
- 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 an impact 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 airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three

² The term Qualifying Interest (QI) is used when referring to the habitats or species for which an SAC is designated; the term Special Conservation Interest (SCI) is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

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 (Zol) of the Proposed Scheme, and therefore potentially at risk of significant effects. The Zol 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 Desk Study

- 11 The desktop data sources used to inform the assessment presented in this report are as follows (accessed in October / November 2020 and updated in May 2022):
 - Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) from www.npws.ie⁴, including conservation objectives documents;
 - Online data records available on National Biodiversity Data Centre Database (NBDC, 2022);
 - Online data records made available via an National Parks and Wildlife Service (NPWS) data request (NPWS, 2020);
 - Information on the status of European Union (EU) protected habitats and species in Ireland (NPWS 2019a; NPWS 2019b; NPWS 2019c);
 - Ordnance Survey Ireland (OSI) orthophotography (from 1995 to 2012) for the Proposed Scheme study area (available from www.osi.ie);
 - Bus Connects Drone Imagery, surveyed November 2020; 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 data⁵;
 - Records from the Botanical Society of Britain and Ireland (BSBI 2020);
 - Information contained within the *Flora of County Dublin* (Doogue *et al.*, 1998);
 - Environmental information / data for the area available from the EPA website (www.epa.ie);
 - Information on light-bellied Brent goose inland feeding sites from the Natura Impact Statement prepared for a Proposed Residential Development, St. Paul's College, Sybill Hill, Raheny, Dublin (Scott Cawley Ltd., 2017);
 - The results of ecological surveys undertaken as part of the Environmental Impact Assessment (EIA) studies for the Proposed Scheme (see Section 3.2 below for details); and

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

⁴ The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2022_04 and SPA_ITM_2021_10.

⁵ Article 17 of the EU Directive on the Conservation of habitats, Floras and Fauna (Habitats Directive) requires 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 a 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.

- Information on the location, nature and design of the Proposed Scheme supplied by the BusConnects Infrastructure team.

2.4 Consultations

- 12 Table 1 outlines the Appropriate Assessment issues raised during consultation, which are addressed in the Natura Impact Statement (NIS).

Table 1: Appropriate Assessment Issues Raised During Consultation

Consultee	Date of Consultation	Issues Raised	Relevant Section of the Appropriate Assessment Where This Is Addressed
Department of Housing, Local Government and Heritage (formerly Department of Culture, Heritage and the Gaeltacht)	30 July 2019 Ref. G Pre00165/2019	The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features: <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. 	Addressed in the NIS
		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 Appropriate Assessment	Addressed in the NIS

Consultee	Date of Consultation	Issues Raised	Relevant Section of the Appropriate Assessment Where This Is Addressed
		<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>Addressed in the NIS</p>
		<p>The 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>Addressed in the NIS</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>Addressed in the NIS</p>

Consultee	Date of Consultation	Issues Raised	Relevant Section of the Appropriate Assessment Where This Is Addressed
		<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. 	

2.5 Baseline Surveys

- 13 Baseline ecological surveys were undertaken as necessary to inform environmental assessments of the Proposed Scheme. This section describes those ecological surveys carried out which are relevant to and have informed 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 between June and August 2018 along the then Proposed Scheme alignment. Confirmatory surveys were subsequently undertaken on the Proposed Scheme again in August 2020 and May 2022 to check and update the presence and extent of habitats found in the 2018 habitat surveys. Additional habitat surveys were carried out along any new route sections added since 2018. 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 Fossitt⁶ and in accordance with Best Practice Guidance for Habitat Survey and Mapping⁷. 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. The 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 Edition⁸.

2.5.2 Aquatic Surveys

- 15 A desk study identified two sites where water bodies may be subject to significant disturbance as a result of the Proposed Scheme, with these being the proposed Poddle cycleway and the Stoneboat Boardwalk over the River Poddle at Mount Argus View, and the proposed offline pedestrian / cycle bridges over the Grand Canal on either side of Robert Emmet Bridge. The assessment of the watercourses intersected by the Proposed Scheme was undertaken using relevant survey data available for other projects in the area, including aquatic survey data from the NTA's MetroLink Project (aquatic and fisheries assessment of

⁶ Fossitt, J.A. (2000) A Guide to Habitats in Ireland. Heritage Council, Kilkenny.

⁷ Smith, G.F., O'Donoghue, P., O'Hara, K. & Delaney, E. (2011) Best Practice Guidance for Habitat Survey and Mapping. The Heritage Council Church Lane, Kilkenny, Ireland.

⁸ Stace, C. (2019) *New Flora of the British Isles. 4th Edition.* C&M Floristics

watercourses associated with the MetroLink Project, Co. Dublin, Unpublished Report to the NTA (Triturus Environmental Ltd. 2021)).

2.5.3 Fauna Surveys

- 16 Ecological surveys relevant to the 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 SCI bird species. Dedicated fisheries or aquatic surveys were not deemed to be 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 *Austropotamobius pallipes*. The nearest known European site designated for Salmon *Salmo salar*, river lamprey *Lampetra fluviatilis* and brook lamprey *L. planeri* is the River Boyne and River Blackwater SAC, located approximately 42km north of the Proposed Scheme in the River Boyne catchment. The nearest known European site designated for white-clawed crayfish is the River Barrow and River Nore SAC, which is located approximately 47.5km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow catchment.

2.5.3.1 Otter

- 17 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 multidisciplinary walkover survey, undertaken between June and August 2018, August and October 2020 and in March 2022. 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.
- 18 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require otter surveys. The desk study identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. These sites were located at the proposed Poddle Cycleway and Stone Boat Boardwalk at Mount Argus View and the proposed offline footbridges at the existing Robert Emmet Bridge over the Grand Canal. A corridor of approximately 150m upstream and downstream of these sites were surveyed to identify the presence of otter holts in October 2020 and in March 2022.

2.5.3.2 Kingfisher

- 19 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require habitat suitability assessments for nesting kingfisher *Alcedo atthis*. The desk study identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. These sites are located at the proposed Poddle Cycleway and Stone Boat Boardwalk at Mount Argus View and the proposed offline footbridges at the existing Robert Emmet Bridge over the Grand Canal.
- 20 The suitability of water features and associated foraging, roosting, and nesting habitats, located within or directly adjacent to the Proposed Scheme, were assessed for kingfisher potential in November 2020 and March 2022. Where suitable habitat existed, surveys extended approximately 500m upstream and downstream of the proposed crossing point. Evidence of kingfisher activity at any potential nest holes was recorded.

2.5.3.3 Other Birds

- 21 The results of the desk study have informed the assessment of likely significant effects on breeding bird species arising from the Proposed Scheme.
- 22 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 *Branta bernicla hrota* (Scott Cawley Ltd., 2017). A habitat suitability assessment was carried out in October 2020 to verify the suitability of potential inland feeding / roosting sites identified during the desk study.

- 23 There were no suitable ex-situ wintering bird sites which would be subject to direct habitat loss by the Proposed Scheme. A single known ex-situ winter bird feeding site, Eamonn Ceannt Park, is located within 300m of the Proposed Scheme boundary along Sundrive Road. The results of the desk 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

- 24 The following sections provide information to facilitate the Appropriate Assessment of the Proposed Scheme to be undertaken by the competent authority.

3.1 Description of the Proposed Scheme

3.1.1 Overview

- 25 The Proposed Scheme will be approximately 3.7km in length and will commence on R817 Kimmage Road Lower at the junction with the R818 on Terenure Road West and Kimmage Road West, and R817 Fortfield Road. The Proposed Scheme will continue along R817 Kimmage Road Lower towards the City Centre, via the R137 on Harold's Cross Road, Clanbrassil Street Upper and Lower and New Street South. Priority for buses will be provided along the entire route, consisting primarily of dedicated bus lanes in both directions where feasible, with alternative measures proposed at particularly constrained locations such as much of R817 Kimmage Road Lower, Harold's Cross Park West and short sections of R137 Clanbrassil Street Upper and Lower in alternate directions. A complementary cycle route is also proposed to the west of the Proposed Scheme via quiet streets at the southern end of the Proposed Scheme.

- 26 The Proposed Scheme has been divided into three principal sections. The division line between sections has been determined by grouping similar carriageway types together. Two of these sections have been further subdivided into six sub-sections, according to the types of construction works required. See list below:

- Section 1: Lower Kimmage Road from Kimmage Cross Roads to Junction with Harold's Cross Road:
 - Section 1a: Kimmage Cross Roads to Ravensdale Park;
 - Section 1b: Lower Kimmage Road – Ravensdale Park/Sundrive Cross/Harold's Cross Park; and
 - Section 1c: Kenilworth Park/Harold's Cross Road Junction.
- Section 2: Harold's Cross Road from Harold's Cross Park to Grand Canal;
- Section 3: Clanbrassil Street Upper and Lower and New Street from the Grand Canal to the Patrick Street Junction:
 - Section 3a: Grand Canal Bridge/Clanbrassil Street Upper;
 - Section 3b: Clanbrassil Street Upper/Clanbrassil Street Lower; and
 - Section 3c: Clanbrassil Street Lower/New Street South.

- 27 The main characteristics of the Proposed Scheme of relevance to the ecological assessment are outlined under the Construction and Operational Phases, as follows:

3.1.2 Construction Phase

- 28 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.

3.1.2.1 Structural Works / Demolition Works

29 The following are the main structural works that form the Proposed Scheme works:

Structure No. 1: Stone Boat Boardwalk at Mount Argus Way

- Installation of new proposed Poddle Boardwalk over the River Poddle at Mount Argus View; and,
- Demolition of a section of existing boundary wall to the rear of the car park for access.

Structure No. 2: Cycle / Pedestrian Bridge to the West of the Robert Emmet Bridge

- Installation of new proposed pedestrian / cycle bridges to the west of the existing Robert Emmet Bridge over the Grand Canal; and,
- Demolition of a section of existing parapet wall to Parnell Road for access.

Structure No. 3: Pedestrian Bridge to East of Robert Emmet Bridge

- Installation of new proposed pedestrian / cycle bridges to the east of the existing Robert Emmet Bridge over the Grand Canal; and,
- Demolition of a section of existing retaining wall adjacent to Grove Road and Windsor Terrace to give space for construction.

Structure No. 4: Retaining Wall on Northern Approach to Robert Emmet Bridge

- Of two existing masonry retaining walls, the lower wall will be demolished and the upper wall buried behind new fill material;
- A new retaining wall will be provided;
- Road widening at the lower access road after the construction of the retaining walls to allow access to Clanbrassil Street Upper;
- Demolition of a dwelling at Gordon's Fuels; and,
- Reinstatement of adjacent areas, including pavement, footway and cycleway surfacing construction activities.

Structure No. 5: Ramp on Eastern Approach to Robert Emmet Bridge

- Existing narrow ramp will be widened and lengthened;
- Existing retaining wall will be increased in height; and,
- Reinstatement of adjacent areas.

3.1.2.2 Surface Water Drainage Infrastructure

30 There is one existing surface water catchment within the Proposed Scheme. The Proposed Scheme will run close to the Poddle River for its entirety and will discharge to the River Poddle in the southern part of the scheme and for the northern part through the existing combined sewer systems to the Ringsend WwTP.

31 It is proposed to connect proposed drainage infrastructure into the existing surface water sewer. The existing road and bridge network consists primarily of curb and gully, with no treatment or attenuation

within the network. Surface waters from the Proposed Scheme will drain to a combination of surface water sewer discharging to the Poddle_010 and combined sewer discharging to Ringsend WwTP.

- 32 It is estimated that the existing surface water drainage system which will remain unchanged and will continue to discharge through existing surface water outfalls to the Poddle_010 water body in the southern part of the scheme, and for the northern part through the existing combined sewer system to the Ringsend WwTP (which ultimately discharges to Liffey Estuary Lower, Dublin Bay). The Proposed Scheme will result in relatively small changes in impermeable area for minor road widening, resulting in a small increase in impermeable surface area and will cause a small increase in surface water discharge rates at the Poddle waterbody. A full breakdown is provided in Table 2.
- 33 The drainage design principles ensure that there will be no net increase in the surface water flow discharged to these receptors.
- 34 The proposed drainage design includes the relocation and addition of drainage gullies as necessary for changes in the positions of kerbs, as well installation of a new 400m length of surface water sewer on R137 Harold's Cross Road, which will outfall to the combined sewer system as there is no alternative suitable outfall available. Attenuation will be in the form of oversized pipe, tree pits, permeable paving in a new car park and infiltration trenches in new soft landscaped areas. These SuDS measures will allow a level of treatment and / or attenuation to be provided before discharging to the network, slightly reducing the impact on water quality as well as preventing an increase in runoff rates.
- 35 The drainage system for the Proposed Scheme will discharge to one surface waterbody (Poddle_010) and one WwTP (Ringsend). Details of the proposed drainage treatment for each catchment and subsequently each waterbody are provided in Table 2. This table also includes details of the changes to impermeable areas. No new outfalls are proposed.

Table 2: Proposed SuDS and Impermeable Areas

Water Body	Impermeable Surface Area				SuDS Measures Proposed
	Existing (m ²)	Additional (m ²)	Change (m ²)	Percentage Change (%)	
Poddle_010	240	315	75	131	Permeable paving on boardwalk
Combined Sewer/Ringsend	1,906	1,007	899	53	Permeable paving in car park and bridge, attenuation / Oversized Pipe

3.1.2.3 Lighting

- 36 The majority of the Proposed Scheme is already artificially lit, however temporary lighting may be required along the Proposed Scheme at certain locations during the Construction Phase. A number of existing / permanent lighting columns are proposed to be relocated or replaced as part of the lighting strategy.

3.1.2.4 Landscape and Urban Realm

- 37 It is proposed that localised replanting to compensate for loss of vegetation across the Proposed Scheme will be undertaken. Key areas of the design consideration include the village centre for Kimmage, surrounding the junction of R817 Kimmage Road Lower and Sundrive Road, and at St. Patrick's Court along the western side of the R137 Clanbrassil Street Lower, mature trees in localised areas such as New Street South, Poddle Park, Mount Argus Park and Harold's Cross Park, and in the vicinity of the Grand Canal. Existing trees in good conditions are to be kept, whenever possible and fully protected during construction. Areas of semi-natural / reduced management vegetation in good condition are being kept,. In terms of urban realm, new enlarged pedestrian areas such as the area of Kimmage village centre immediately surrounding the junction of R817 Kimmage Road Lower and Sundrive Road will feature new green

ornamental planting and urban furniture while the areas identified as focal points will also include a more differentiated design with different paving materials.

3.1.2.5 Construction Compounds

38 Three Construction Compounds have been selected based on where there is the most available space, in close proximity to the majority of the Proposed Scheme major works and with access to the National and Regional Road network. The Construction Compounds will be located at the following sites:

- Construction Compound K1: Sundrive Road;
- Construction Compound K2: Our Lady's Hospice; and
- Construction Compound K3: Clanbrassil Street Lower.

39 The Construction Compounds will be used as the primary location for the storage of materials, plant and equipment, site offices, worker welfare facilities and limited car parking.

3.1.2.6 Estimated Construction Phase Duration

40 The total Construction Phase for the overall Proposed Scheme is estimated at approximately 18 months. However, individual activities will have shorter durations.

3.1.2.7 Operational Phase

41 The main characteristics of the Operational Phase of the Proposed Scheme that have the potential for ecological impact are:

- The presence and operation (traffic) of the road;
- The presence of additional lighting; and
- Routine maintenance including ongoing landscape maintenance.

3.2 Overview of the Receiving Environment

3.2.1 European sites

42 The Proposed Scheme does not overlap with any European site. The nearest European site to the Proposed Scheme is the South Dublin Bay and River Tolka Estuary SPA, which is located approximately 3.6km to the east, and is also hydrologically connected to the South Dublin Bay and River Tolka Estuary SPA, which is located approximately 6.7km downstream of the proposed crossing point on the Grand Canal (distance measured along length of the Grand Canal). This is followed by South Dublin Bay SAC, which is located approximately 3.9km east of the Proposed Scheme. North Bull Island SPA is also located in Dublin Bay, approximately 6.4km from the Proposed Scheme.

43 There are eight European sites located in Dublin Bay which are downstream of the Proposed Scheme. These 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. European sites will be hydrologically connected to the Proposed Scheme via three watercourses (i.e. River Poddle (Poddle_010), Grand Canal Main Line and Liffey Estuary Lower).

44 There are 12 SPAs designated for SCI species that are known to forage and / or roost at inland sites across Dublin City and / or utilise Dublin Bay. These are South Dublin Bay and River Tolka SPA, North Bull Island SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Howth Head Coast SPA, Lambay Island SPA and The Murrrough SPA.

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

46 All of the European sites present in the vicinity of the Proposed Scheme are shown on Figure 1. 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);
 - Depositing/ lowland rivers (FW2);
 - Canals (FW3);
 - Amenity grassland (Improved) (GA2);
 - Dry meadows & grassy verges (GS2);
 - Mixed broadleaved woodland (WD1);
 - Residential (comprised of areas of residential properties and gardens);
 - Scattered trees and parkland (WD5);
 - Treelines (WL2);
 - Scrub (WS1); and
 - Ornamental/ non-native shrub (WS3).
- 48 No Annex I habitats were recorded inside the boundary of the Proposed Scheme.

3.2.3 Flora and Fauna Species

3.2.3.1 Flora

- 49 No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.
- 50 There were no non-native invasive plant species listed on the Third Schedule of the 2011 Birds and Habitats Regulations identified along or adjacent to the Proposed Scheme.
- 51 The desk study returned records of a total of 16 species listed on the Third Schedule of the 2011 Birds and Habitats Regulations across the wider study area (i.e. Grid Square O13). Records within 1km of the Proposed Scheme include several records for the recently delisted Canadian waterweed *Elodea canadensis*⁹ along the Grand Canal at Robert Emmet Bridge, records of Third Schedule species include Spanish bluebell *Hyacinthoides hispanica* in Eamonn Ceannt Park, records of three-cornered garlic *Allium triquetrum* along the River Poddle at Blarney Park and Japanese knotweed *Reynoutria japonica* in a private residence on Mount Tallant Avenue. Records in proximity to the Proposed Scheme include species recorded along the banks of the River Liffey including Himalayan balsam *Impatiens glandulifera*, giant-rhubarb *Gunnera tinctoria* and giant knotweed *Reynoutria sachalinensis*. Records from the Grand Canal include Nuttall's waterweed *Elodea nuttallii*, parrot's-feather *Myriophyllum aquaticum*, water fern *Azolla filiculoides*, New Zealand Pigmyweed *Crassula helmsii* and Japanese Knotweed *Reynoutria japonica*.

3.2.3.2 Otter

- 52 The desk study found that otter are known to occur within 1km of the Proposed Scheme along the Grand Canal. Records of otter were also returned within the Poddle catchment approximately 2km from the

⁹ Delisted as Third Schedule species but often occurs alongside *E. nuttallii*.

Proposed Scheme at Willingtoun Court Bridge and approximately 4km from the Proposed Scheme at Tymon Park¹⁰.

- 53 No signs of otter, an Annex II species, were recorded during surveys within the footprint of the Proposed Scheme. No signs of otter were recorded within 150m upstream and downstream of the proposed Poddle Cycleway and Stone Boat Boardwalk at Mount Argus View and the proposed offline footbridges at the existing Robert Emmet Bridge over the Grand Canal.
- 54 The nearest European site for which this species is designated is the Wicklow Mountains SAC, which is located approximately 8.1km south of the Proposed Scheme. Otter territories are within the range of approximately 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 Lower provide the key pathway to Wicklow Mountains SAC, whereas the Proposed Scheme will discharge into the River Poddle (Poddle_010) and Ringsend WwTP. Although Wicklow Mountains SAC is located within the same sub-catchment (Dodder_SC_010) to the Proposed Scheme, the River Poddle and River Dodder are not hydrologically connected and are separated by approximately 600m of urbanised areas at their closest point at Bancroft Park. As such, populations of otter within the footprint of the Proposed Scheme are deemed not to be connected to the SAC population.

3.2.3.3 Marine Mammals

- 55 The Proposed Scheme is hydrologically connected to the Liffey Estuary Upper via the Poddle_010. Harbour seal *Phoca vitulina*, grey seal *Halichoerus grypus*, and harbour porpoise *Phocoena Phocoena* are known to be present in Dublin Bay. Both seal species and harbour porpoise are listed on Annex II and 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 22.9km from the Proposed Scheme. The nearest European site for which harbour porpoise has been designated is Rockabill to Dalkey Island SAC located approximately 12.1km from the Proposed Scheme.

3.2.3.4 Kingfisher

- 56 The desk study found that kingfisher *Alcedo atthis*, an Annex I bird species, are known to occur along the River Poddle and the Grand Canal. There is potential for a population of kingfisher to be present in the vicinity of the Proposed Scheme.
- 57 Habitat suitability assessment surveys carried out in November 2020 and March 2022 recorded no evidence of any nest holes within 500m upstream or downstream of the proposed Poddle Cycleway and Stone Boat Boardwalk at Mount Argus View and the proposed offline footbridges at the existing Robert Emmet Bridge over the Grand Canal. No kingfisher were recorded within the footprint of the Proposed Scheme during the multidisciplinary or habitat suitability assessment surveys.
- 58 The nearest European site for which this species is designated is the River Boyne and River Blackwater SPA, which is located approximately 38.8km north of the Proposed Scheme. Kingfisher populations within close proximity to the Proposed Scheme are not deemed to be SCI species.

3.2.3.5 Other Birds

- 59 The desk study returned records of three breeding 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* and lesser black-backed gull *Larus fuscus*.
- 60 The desk study returned records of a total of 19 wintering bird species in the wider study area (i.e. Grid Square O13). Records included 27 species listed under Annex I of the Birds Directive and 48 SCI species. The majority of wintering birds identified in the desk study are typically found in coastal, estuarine and

¹⁰ 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.*

intertidal habitats including the Liffey Estuary and Dublin Bay. A desk study of lands within 300m of the Proposed Scheme returned records of four SCI wintering bird species which may use inland amenity grassland feeding sites, including light-bellied Brent goose, black-headed gull, herring gull and lesser black-backed gull.

- 61 A review of a study into light-bellied Brent goose inland feeding sites has identified no known inland wintering bird feeding sites within the footprint of the Proposed Scheme. There is one known inland wintering bird feeding site within approximately 300m of the Proposed Scheme (i.e. the disturbance ZoI):
- Eamonn Ceannt Park lies approximately 60m from the Proposed Scheme, with a viable wintering bird feeding area located approximately 100m from the Proposed Scheme.
- 62 A number of SPAs have been included on a precautionary basis for assessment as it cannot with certainty be confirmed that their SCI species do not use areas in the vicinity of the Proposed Scheme as ex-situ habitat.

3.2.4 Hydrology

- 63 The Proposed Scheme is hydrologically connected to Dublin Bay via two watercourses: the River Poddle (Poddle_010) and the Grand Canal Main Line. The Proposed Scheme is also hydrologically connected to the Liffey Estuary Upper via the River Poddle and the Liffey Estuary Lower via the Grand Canal and Ringsend WwTP.
- 64 Details on the water quality of each watercourse, as sourced from the EPA, and the distances from the proposed crossing point to downstream water bodies are also provided in Table 3.

Table 3: Water Quality of Watercourses / Water Bodies 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 Water Bodies Along With Their Associated Water Quality
River Poddle	There are 12 crossing points of the River Poddle, the majority of which are in sections where the Poddle is culverted. The River Poddle is above ground at Poddle Park, Mt Argus Park and Ravensdale Park.	Q3 (The Priory, Kimmage Road) Unassigned 'At risk'	It flows for approximately 4.3km, from the crossing point on Mount Argus Road, until it reaches the Liffey Estuary Upper transitional water body (classified as 'Eutrophic'). This drains to the Liffey Estuary Lower transitional water body (classified as 'Unpolluted') at Grand Canal Dock, which ultimately drains to Dublin Bay coastal water body (classified as 'Unpolluted').
Grand Canal	The Proposed Scheme crosses the Grand Canal at Robert Emmet Bridge along R137 Harold's Cross Road.	Q-Value Score not applicable Good 'Not at risk'	It flows for approximately. 3.8km, from the crossing point on the Harold's Cross Road, until it reaches the Liffey Estuary Lower transitional water body (classified as 'Unpolluted') at Grand Canal Dock, which ultimately drains to Dublin Bay coastal water body (classified as 'Unpolluted').
Liffey Estuary Upper	Hydrologically connected to the Proposed Scheme via the River Poddle.	Q-Value Score not applicable Good 'At risk'	It flows for approximately 1.7km from the outflow of the River Poddle at Usher's Quay until it reaches the Liffey Estuary Lower transitional water body (classified as 'Unpolluted'), which ultimately drains to Dublin Bay coastal water body (classified as 'Unpolluted').
Liffey Estuary Lower	Hydrologically connected to the Proposed Scheme via the Grand Canal and the Liffey Estuary Upper.	Q-Value Score not applicable Good 'At risk'	The Liffey Estuary Lower transitional water body (classified as 'Unpolluted') at Grand Canal Dock, which ultimately drains to Dublin Bay coastal water body (classified as 'Unpolluted').

3.2.5 Hydrogeology

- 65 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)'. The region is predominantly underlain by Carboniferous Limestones. The majority of the Dublin City area was a deep marine basin known as the Dublin Basin where these sedimentary rocks were deposited.
- 66 An assessment of contaminated land within the footprint and directly on either side of the Proposed Scheme was conducted, with the main findings being asbestos and elevated pH being recorded along the Proposed Scheme. There are a number of potential sources of contaminated land, some of which are historical, adjacent to the Proposed Scheme, including: petrol stations and associated industries, paper mill, Gordon's Fuel, underground cables, cemeteries, distilleries, hospitals, lime works and a tannery.
- 67 The Proposed Scheme transverses one groundwater body. Environmental data sourced from the EPA for each of these groundwater bodies is presented below:

Dublin Groundwater Body

- For the majority of this area, it is ranked as being of 'Good' Groundwater body WFD Status (2013-2018) and 'not at risk' of failing the WFD groundwater quality objectives for the majority of its area; and
- The aquifers located within this groundwater body and where the Proposed Scheme transverses are classified as '*locally important aquifer - moderately productive only in local zones*'.

68 The vulnerability of the Dublin groundwater body to human activities ranges from 'Rock at or Near Surface', 'Extreme', 'High', 'Moderate' to 'Low' within the footprint of the Proposed Scheme.

3.2.6 Soils and Geology

69 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 GSI Quaternary subsoils map¹¹ shows the footprint of the Proposed Scheme is predominantly underlain by till derived from limestone, bedrock subcrops and urban. There are localised deposits of gravels derived from limestones at Patrick Street Junction underlying Saint Patrick's Cathedral to the east of the Proposed Scheme and between Dean Street and Carman's Hall to the west. There is also a linear alluvial deposit running north-south adjacent to and under New Street and Patrick Street.

3.2.7 Air Quality

70 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 a reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Furthermore, emission 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.

71 The unmitigated ZoI 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.

72 As the Proposed Scheme does not have the potential to result in habitat degradation of the QI / SCI species of any European site as the result of air quality impacts, either during the Construction Phase or the Operational Phase, there is no potential for in combination effects to occur in that regard.

3.3 Assessment of Potential Effects on European Sites

73 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 risk the Proposed Scheme to result in a significant effect on any European site, either alone or in combination with other plans or projects.

74 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.

¹¹ GSI (2016a). Quaternary geology of Ireland – Sediments Map. [Online] Available from <https://secure.dccae.gov.ie/arcgis/rest/services/Quaternary/QuaternarySediments16/MapServer>

mitigation measures) are not taken into account as part of this Stage One Appropriate Assessment Screening appraisal.

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

3.3.1 *Habitat Loss and Fragmentation*

76 The Proposed Scheme does not overlap with any European sites. The nearest European site is South Dublin Bay and River Tolka Estuary SPA which is located approximately 3.6km from the Proposed Scheme; therefore, there is no potential for direct habitat loss and fragmentation to occur. Habitat loss may occur indirectly as a consequence of severe habitat degradation arising from a reduction in water quality and / or a change to the hydrological regime, as described in the section below.

77 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 Greater Dublin Area. However, as there will be no direct habitat loss of any sites suitable to support SCI bird species as a result of the Proposed Scheme, there is no potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss / fragmentation.

78 Regarding the two raptor species for which Wicklow Mountains SPA are designated, according to the Scottish Natural Heritage Guidance (SNH, 2016) during the breeding season the core foraging range for peregrine is estimated at 2km from the nest site, with the maximum recorded distance of 18km in Britain. During the winter season the mean foraging range reduces to 3km with the maximum range being 6.5km. Likewise, during the breeding season merlin are known to forage within 5km of the next site, while in winter this generally reduces to 500m but can extend to 1.5km. Wicklow Mountains SPA lies approximately 8.2km south of the Proposed Scheme, which is well outside the typical foraging ranges for both peregrine and merlin. Therefore, likely significant effects on these two SCI bird species, as a result of ex-situ habitat loss / fragmentation, can be excluded.

79 As the Proposed Scheme will not result in habitat loss or habitat fragmentation within any European site, there is no potential for any in combination effects to occur in that regard.

3.3.2 *Habitat Degradation / Effects on QI / SCI Species as a Result of Hydrological Impacts*

80 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle and the Grand Canal and existing surface water drainage pipes which drain to Ringsend WwTP, and subsequently 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. In the absence of mitigation, the associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the discharge point or location of the accidental pollution event. Such an occurrence, of a sufficient magnitude, either alone or in combination with other pressures on water quality, could undermine the conservation objectives of the European sites downstream in Dublin Bay (i.e. North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, 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 potential impacts could occur to such a degree that the conservation objectives of the North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA may be undermined.

- 81 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, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown SPA, Dalkey Islands SPA, Murrough SPA and, marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC). 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 downstream European sites, which in turn could 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.
- 82 Given the location of Howth Head SAC and its qualifying interests which are located terrestrially above the high-water mark, there is no risk of effects from water pollution in Dublin Bay.

3.3.3 *Habitat Degradation as a Result of Hydrogeological Impacts*

- 83 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 ecosystems and any species that they may support.
- 84 The underlying aquifers are Locally Important 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 metres 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. The unmitigated hydrogeological Zol of the Proposed Scheme is considered to be 2km in the worst-case scenario, therefore there are no groundwater dependent terrestrial ecosystems located within the hydrological Zol of the Proposed Scheme, which are linked to European sites. This Zol is determined by the professional judgement of the hydrogeology specialists.
- 85 In summary, therefore, the Proposed Scheme does not have the potential to result in habitat degradation of the QI / SCI 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*

- 86 No non-native invasive plant species listed on the Third Schedule of the 2011 Birds and Habitats Regulations 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. (i.e. North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). These in turn may result in the degradation of the existing habitats and therefore undermine the conservation objectives of these European sites.
- 87 It is not considered likely that terrestrial invasive species could spread to European sites which are located farther afield and either well above or below the high-water mark in Dublin Bay, a significant distance from the outfall locations of the River Poddle, Grand Canal, Liffey Estuary Upper or Liffey Estuary Lower (i.e. Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Islands SPA).

3.3.5 *Habitat Degradation as a Result of Air Quality Impacts*

- 88 A reduction in air quality within the immediate vicinity of the construction works may occur as a consequence of dust deposition associated with the construction activities. This includes a 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.
- 89 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.
- 90 Therefore, the Proposed Scheme does not have the potential to result in habitat degradation of the QI / SCI species of any European site as the result of air quality impacts, either during the Construction Phase or the Operational Phase.

3.3.6 *Disturbance and Displacement Impacts*

- 91 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction and / or Operational Phase 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 250m¹². For birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m¹³, 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.
- 92 Although no signs of otter were recorded during field surveys of the Proposed Scheme, the Grand Canal and the River Poddle are known to support otter, an Annex II mammal species. This population is not considered to be associated with the QI populations of any European site. The nearest SAC to the proposed development site for which otter has been designated is Wicklow Mountains SAC which is located c. 8.1km south. Research carried out by Ó Néill et al. (2008) on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged 7.5km while male otter home ranges varied to 21km. Although the Proposed Scheme is within the potential home range of male otter, the River Poddle rises in Tallaght and is therefore not hydrologically connected to the Wicklow Mountains SAC, therefore it is not considered likely that the otter present in the vicinity of the Proposed Scheme are associated with the QI populations of any European site.
- 93 Although marine mammals associated with European sites may commute and forage within the Liffey Estuary Lower and Dublin Bay, it is not considered to be likely that there will be any impacts on these

¹² This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes) documents. 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.

¹³ 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.

species as a result of the Proposed Scheme as the terminus of the Proposed Scheme is located approximately 633m south of the River Liffey, at Patrick Street.

- 94 Regarding the raptor species, for which Wicklow Mountains SPA are designated (e.g. merlin and peregrine), a study by Ruddock & Whitfield - A Review of Disturbance Distances in Selected Bird Species (2007), which included a review of previous studies in this area, offers no definitive distance after which disturbance to merlin is not significant but indicates that an upper limit of 300-500m may be sufficient in the case of breeding or nesting merlin. Likewise a distance of 500-750m is likely to be sufficient for breeding peregrines. Adopting a precautionary approach, based on the available data regarding disturbance distances for merlin and peregrine, it can be concluded that disturbance to these bird species would be most likely to occur within 1km (i.e. the disturbance Zol is 1km). There are no European sites within the disturbance Zol; the next nearest European site to the proposed development is 4.3km away. There are also no habitat areas within the disturbance Zol of the proposed development that support populations of the SCI species for which Wicklow Mountains SPA is designated. Considering the above, there is no potential for the Proposed Scheme to result in disturbance/ displacement impacts on the SCI species for which Wicklow Mountains SPA is designated¹⁴.
- 95 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 in the wider study area. 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 3km to 5km of a river catchment¹⁵. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA which is located in a separate catchment approximately 38.8km away. Therefore kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.
- 96 There are a number of SPAs located in relatively close proximity to the Proposed Scheme 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 Murrrough SPA). Four of these species were returned from the desk study and include light-bellied Brent goose, herring gull, black-headed gull and lesser black-backed gull. One confirmed inland foraging / roosting site, and other suitable sites which these bird species may utilise, are located within the potential Zol of the Proposed Scheme (See Section 3.2.3).
- 97 Therefore, the Proposed Scheme has the potential to result in the disturbance / displacement impacts to the mobile SCI species of European sites, that are known to forage and / or roost at inland sites across the Greater Dublin Area.

3.3.7 Summary

- 98 The ex-situ hydrological, invasive species 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 QIs / SCIs of a European site(s). Therefore, the potential for the Proposed Scheme to have significant effects on a European site(s) cannot be excluded.
- 99 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 4. In assessing the potential for the Proposed Scheme to result in a significant effect on any European sites, any measures

¹⁴ There is a need to consider use of habitat areas outside of an SPA by SCI bird species where they support the SCI populations and the site's conservation objectives. These habitat areas can comprise alternative roosting sites, foraging areas, staging grounds or migration routes and can, but not necessarily exclusively, be situated within the immediate hinterland of the SPA, or in areas ecologically connected to it.

¹⁵ 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/>

intended to avoid or reduce the harmful effects of the Proposed Scheme on European sites are not taken into account.

Table 4: Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In-Combination Effects and the ZoI of the Potential Effects	Are There any European sites within the ZoI of the Proposed Scheme?
<p>Habitat loss</p> <p>Habitat loss will be confined to the lands within the Proposed Scheme boundary.</p>	<p>No</p> <p>There are no European sites within the Proposed Scheme boundary.</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, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Lambay Island 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 50m from the Proposed Scheme boundary and 500m from the Construction Compound at Construction phase, and up to 200 metres at Operation Phase.</p>	<p>No</p> <p>There are / are no European sites at risk of air quality effects associated with the Proposed Scheme.</p>
<p>Disturbance and displacement impacts</p> <p>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</p>	<p>Yes</p> <p>There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the Proposed Scheme.</p> <p>However, there are <i>ex situ</i> inland feeding sites which are utilised by SCI bird species within the potential disturbance ZoI of the Proposed Scheme</p> <p>Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA.</p>

3.4 In-Combination Effects

- 100 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.
- 101 There are 16 European sites within the Zol of the Proposed Scheme as outlined above in Section 3.3. These are: South Dublin Bay SAC, North Dublin Bay SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Howth Head Coast SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, Rockabill SPA, Dalkey Islands SPA and The Murrrough SPA.
- 102 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.
- 103 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.
- 104 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 5 and Table 6.

Table 5: 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 ¹⁶
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

¹⁶ Together the National Development Plan and the National Framework are referred to as Project Ireland 2040: Building Ireland’s Future

Dublin City Biodiversity Action Plan 2015-2020

Dublin City Council Climate Action Plan 2019-2024

- 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

- Tallaght Town Centre Local Area Plan 2020
- Liffey Valley Town Centre Local Area Plan 2008

Dún Laoghaire- Rathdown Development Plan (2022-2028)- (some sections not adopted as under Ministerial Directive

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 6: 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 Io
- 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
- Clongriffin to City Centre Core Bus Corridor Scheme
- 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
- Belfield / Blackrock to City Centre Core Bus Corridor Scheme
- Bray 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

105 There is the potential for developments listed in Table 6, or those implemented under a range of land use and other plans listed in Table 5, 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.

106 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.

107 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 Section 3.3 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.

108 Therefore, the potential for the following in combination effects arising from plans cannot be ruled out:

- 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, Rockabill to Dalkey Island SAC, Lambay Island SAC, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Howth Head Coast SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA and The Murrough SPA);
- Habitat degradation as a result of introducing / spreading non-native invasive species; North Dublin Bay SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North Bull Island SPA; 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 South Dublin Bay and River Tolka SPA, North Bull Island SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA.

4 Conclusions of Screening Assessment Process

- 109 Following an examination, analysis and evaluation of all the 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, hydrogeological impacts, invasive species and disturbance and displacement impacts: North Dublin Bay SAC, South Dublin Bay SAC, , Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Rockabill SPA and The Murrough SPA.
- 110 In reaching this conclusion, the nature of the Proposed Scheme and its potential relationship with all European sites within the Zol, and their conservation objectives, have been fully considered.
- 111 Therefore, it is the professional opinion of the authors of this report that the application for approval for the Proposed Scheme requires a Stage 2 Appropriate Assessment in respect of the above-listed 16 European sites (including four SACs and 12 SPAs) and consequently, the preparation of a Natura Impact Statement (NIS).

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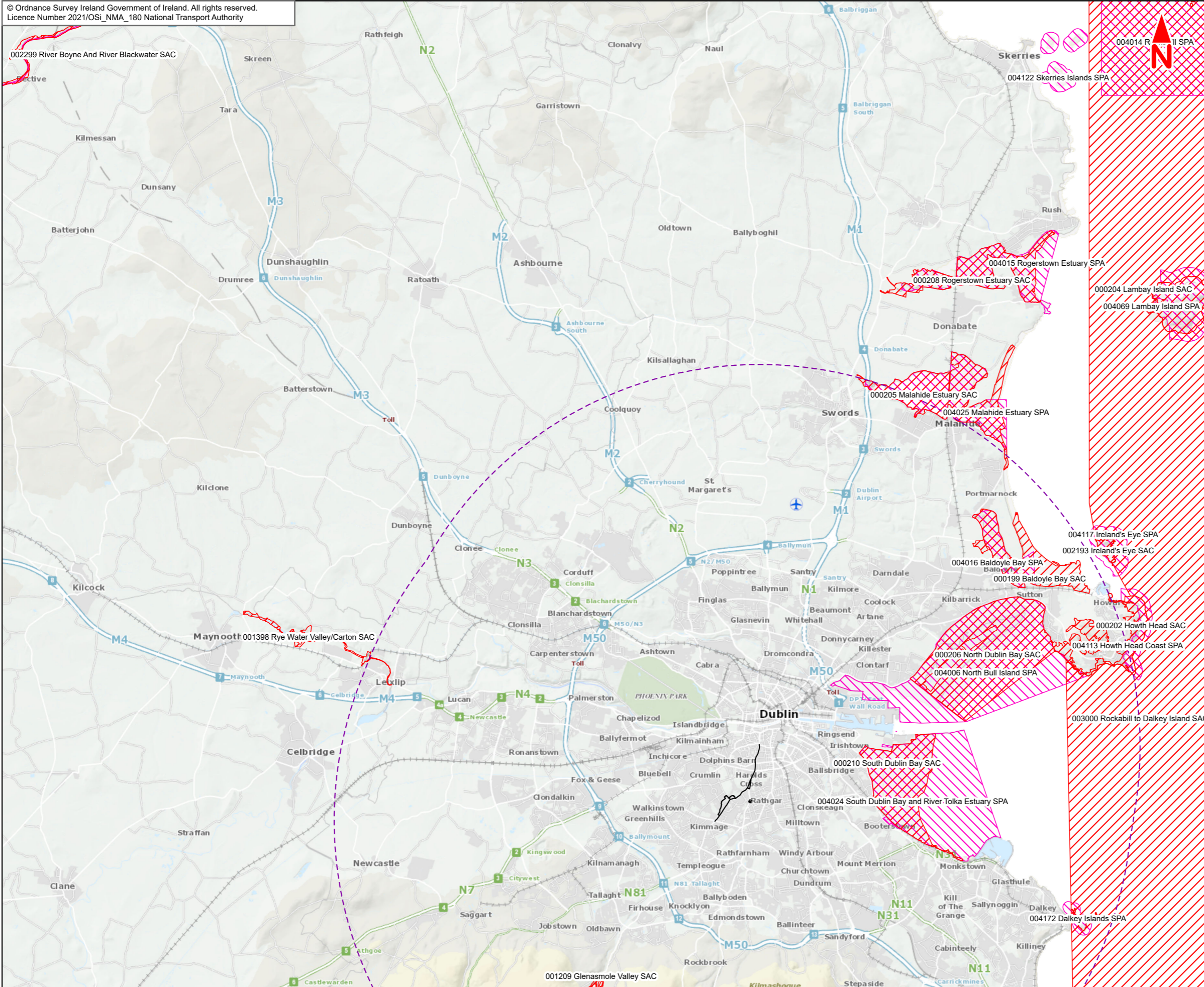
S.I. No. 356/2015 - Flora (Protection) Order, 2015.



Figure 1
European Sites
in the Vicinity
of the Proposed
Scheme

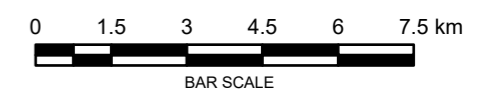
Figure 1

European Sites in the Vicinity of the Proposed Scheme



- Legend :**
- Kimmage to City Centre
 - Core Bus Corridor Scheme
 - - - 15km from Proposed Scheme
 - ▨ Special Area of Conservation
 - ▨ Special Protection Areas

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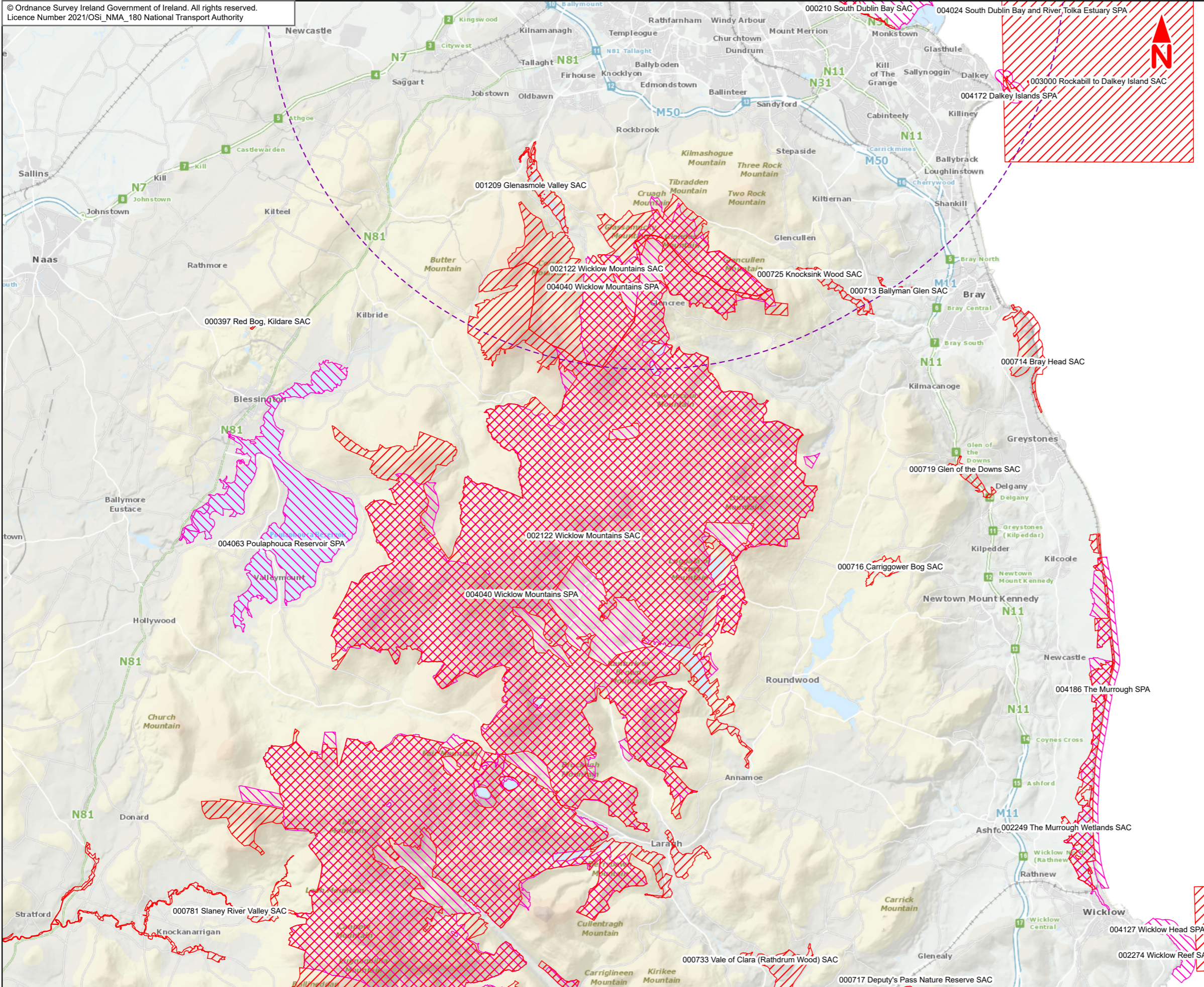
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M01	Jun 2022	EK	PW	DK	ISSUE FOR PHASE 4 : PLANNING

Client: **NTA**
Udarás Náisiúnta Iompair
National Transport Authority

Consultant: **JACOBS ARUP SYSTRA**

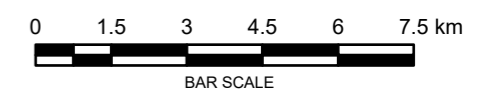
Date: 6/23/2022 | Scale @ A3: 1:150 000
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 Project Code: BCIDE | Originator Code: JAC | QMS Code:

Programme Title: BUSCONNECTS DUBLIN CORE BUS CORRIDORS INFRASTRUCTURE WORKS			
Drawing Title: Kimmage to City Centre Core Bus Corridor Scheme Figure 1 European sites in the Vicinity of the Proposed Scheme			
Drawing File Name: BCIDE-JAC-ENV_BD-0011_XX_00-DR-GG-2090	Sheet Number: 1 of 2	Status: A	Rev: M01



- Legend :**
- Kimmage to City Centre Core Bus Corridor Scheme
 - - - 15km from Proposed Scheme
 - ▨ Special Area of Conservation
 - ▨ Special Protection Areas

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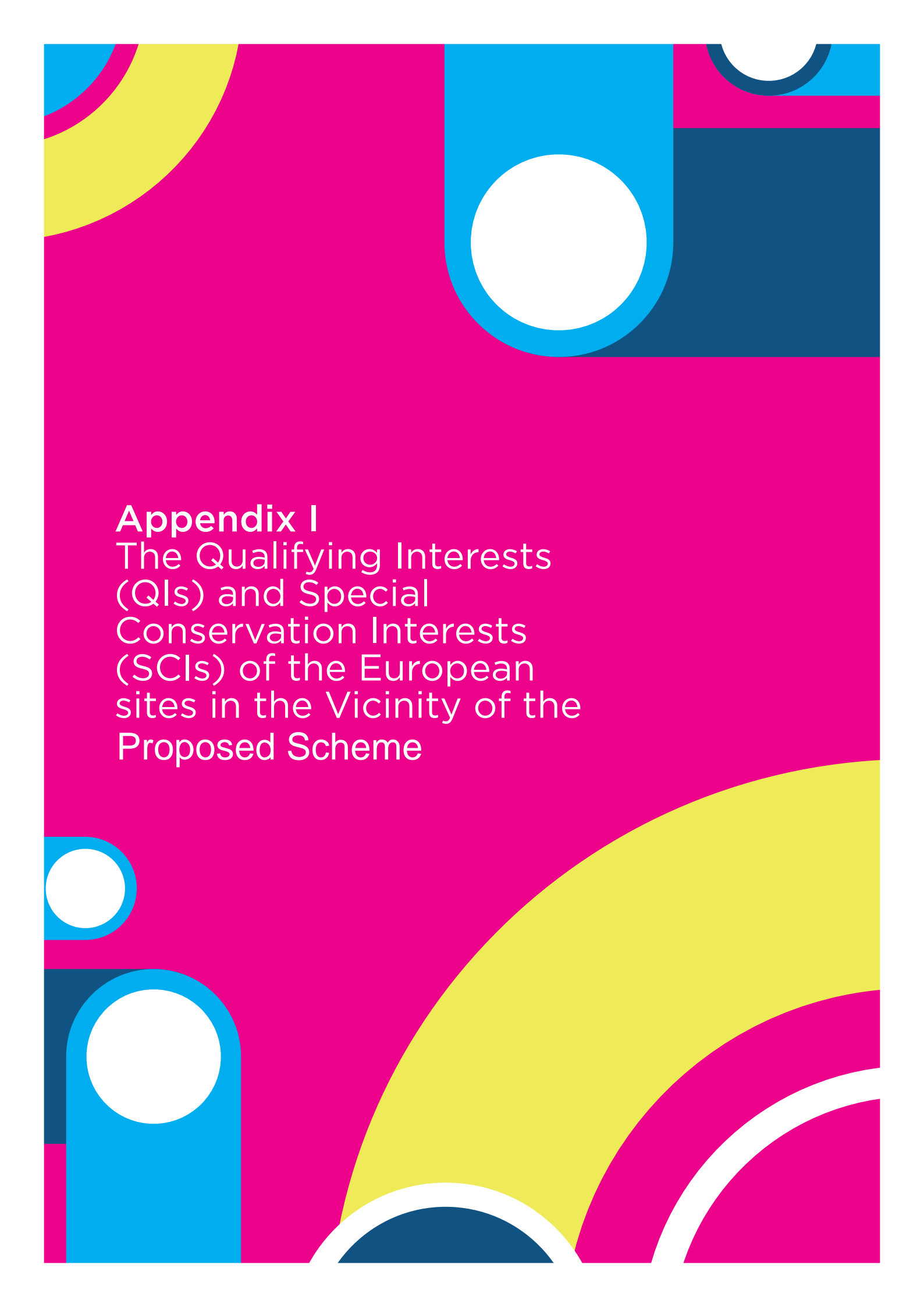
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Appendix I
The Qualifying Interests
(QIs) and Special
Conservation Interests
(SCIs) of the European
sites in the Vicinity of the
Proposed Scheme

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
Special Area of Conservation (SAC)	
<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 (2013a) <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 3.9km east of the Proposed Scheme</p>
<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 maritimae</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 (2013b) <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 6.5km north-east of the Proposed Scheme</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 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) 7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*</p> <p><i>S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021</i> NPWS (2021a) <i>Conservation objectives for Glenasmole Valley SAC [001209]</i>. Version 1.0. Department of Housing, Local Government and Heritage</p>	<p>Approximately 7.4km south of the Proposed Scheme</p>
<p>Wicklow Mountains SAC [002122] 3110 Oligotrophic waters containing very few minerals of sandy plains (<i>Littorelletalia uniflorae</i>) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i></p>	<p>Approximately 8.1km south of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>4030 European dry heaths 4060 Alpine and Boreal heaths 6130 Calaminarian 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 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 (2017a) <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>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><i>S.I. No. 472/2021 - European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021</i> 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 11.5km north-north-east of 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> NPWS (2013c) <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>Approximately 12.1km 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 12.2km north-east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>Knocksink Wood SAC [001398] 7220 Petrifying springs with tufa formation (Cratoneurion)* 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)</p> <p><i>S.I. No. 93/2019 - European Union Habitats (Knocksink Wood Special Area Of Conservation 000725) Regulations 2019</i> NPWS (2021b) <i>Conservation Objectives: Knocksink Wood SAC 000725</i>. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.</p>	<p>Approximately 12.4km south-east of the Proposed Scheme</p>
<p>Rye Water Valley/Carton SAC [001398] 7220 Petrifying springs with tufa formation (Cratoneurion)* 1014 Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> 1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i></p> <p><i>S.I. No. 494/2018 - European Union Habitats (Rye Water Valley/Carton Special Area of Conservation 001398) Regulations 2018</i> NPWS (2021c) <i>Conservation objectives for Rye Water Valley/Carton SAC [001398]</i>. Version 1.0. Housing, Local Government and Heritage.</p>	<p>Approximately 13.8km north-west of the Proposed Scheme</p>
<p>Malahide Estuary SAC [000205] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 <i>Salicornia</i> and other annuals colonising mud and sand 1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) 1330 Atlantic salt meadows (<i>Glaucopuccinellietalia 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 (2013d) <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 14.3km north of the Proposed Scheme</p>
<p>Ballyman Glen SAC [000713] 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens</p> <p><i>S.I. No. 92/2019 - European Union Habitats (Ballyman Glen Special Area Of Conservation 000713) Regulations 2019</i> NPWS (2019d) <i>Conservation Objectives: Ballyman Glen SAC 000713</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>Approximately 14.3km south 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</p>	<p>Approximately 15.4km north east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p><i>S.I. No. 501/2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017</i></p> <p>NPWS (2017b) <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>Rogerstown Estuary SAC [000208]</p> <p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1310 <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>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></p> <p>NPWS (2013e) <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 18.5km north of the Proposed Scheme</p>
<p>Lambay Island SAC [000204]</p> <p>1170 Reefs</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>1364 Grey seal <i>Halichoerus grypus</i></p> <p>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></p> <p>NPWS (2013f) <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 22.9km north-north-east of the Proposed Scheme</p>
Special Protection Area (SPA)	
<p>South Dublin Bay and River Tolka Estuary SPA [004024]</p> <p>A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i></p> <p>A130 Oystercatcher <i>Haematopus ostralegus</i></p> <p>A137 Ringed Plover <i>Charadrius hiaticula</i></p> <p>A141 Grey Plover <i>Pluvialis squatarola</i></p> <p>A143 Knot <i>Calidris canutus</i></p> <p>A144 Sanderling <i>Calidris alba</i></p> <p>A149 Dunlin <i>Calidris alpina</i></p> <p>A157 Bar-tailed Godwit <i>Limosa lapponica</i></p> <p>A162 Redshank <i>Tringa totanus</i></p> <p>A179 Black-headed Gull <i>Chroicocephalus ridibundus</i></p> <p>A192 Roseate Tern <i>Sterna dougallii</i></p> <p>A193 Common Tern <i>Sterna hirundo</i></p> <p>A194 Arctic Tern <i>Sterna paradisaea</i></p> <p>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></p>	<p>Approximately 3.6km east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>NPWS (2015a) <i>Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</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>Chroicocephalus 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></p> <p>NPWS (2015b) <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 6.5km north east of the Proposed Scheme</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></p> <p>NPWS (2022a) <i>Conservation objectives for Wicklow Mountains SPA [004040]</i>. Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 8.2km 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></p>	<p>Approximately 11.7km north east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>NPWS (2013g) <i>Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.</i> National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</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 (2022b) <i>Conservation objectives for Dalkey Islands SPA [004172]. Generic Version 9.0.</i> Department of Housing, Local Government and Heritage.</p>	<p>Approximately 13km south-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> 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 (2013h) <i>Conservation Objectives: Malahide Estuary SPA 004025. Version 1.</i> National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 14.3km north-north-east of the Proposed Scheme</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 (2022c) <i>Conservation objectives for Howth Head Coast SPA [004113]. Version 90.</i> Department of Housing, Local Government, and Heritage.</p>	<p>Approximately 14.7km north-east of the Proposed Scheme</p>
<p>Ireland's Eye SPA [004117] A017 Cormorant <i>Phalacrocorax carbo</i> A184 Herring Gull <i>Larus argentatus</i></p>	<p>Approximately 15.2km north-east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>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 (2022d) <i>Conservation objectives for Ireland's Eye SPA [004117].</i> Version 9.0. Department of Housing, Local Government and Heritage</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> A156 Black-tailed Godwit <i>Limosa limosa</i> A162 Redshank <i>Tringa totanus</i> A999 Wetlands</p> <p><i>S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.</i> NPWS (2013i) <i>Conservation Objectives: Rogerstown Estuary SPA 004015.</i> Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 18.8km north-north-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 (2022e) <i>Conservation objectives for Lambay Island SPA [004069].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage</p>	<p>Approximately 22.7km north-north-east of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying Interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme
<p>Skerries Islands SPA [004122] A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i> 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 (2022f) <i>Conservation objectives for Skerries Islands SPA [004122].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage</p>	<p>Approximately 28.3km north 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>Chroicocephalus ridibundus</i> A184 Herring Gull <i>Larus argentatus</i> A195 Little Tern <i>Sterna albifrons</i></p> <p><i>S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.</i> NPWS (2022g) <i>Conservation objectives for The Murrough SPA [004186].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 28.4km south-south-east of the Proposed Scheme</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 (2013j) <i>Conservation Objectives: Rockabill SPA [004014].</i> Version 1. Department of Culture, Heritage and the Gaeltacht.</p>	<p>Approximately 28.9km from the Proposed Scheme</p>