# Kimmage to City Centre Core Bus Corridor Scheme

July 2023

# Natura Impact Statement

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

# Kimmage to City Centre Core Bus Corridor Scheme

July 2023

# Natura Impact Statement

## Main Report

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

# Natura Impact Statement

## Table of Contents

List of Images:



List of Figures:



List of Appendices:

# 1 Introduction

1 This Natura Impact Statement (NIS) has been prepared by Scott Cawley Ltd., on behalf of the National Transport Authority (NTA) in respect of the Kimmage to City Centre Core Bus Corridor Scheme (hereinafter referred to as the Proposed Scheme). 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.

2 This NIS has been prepared in accordance with the provisions of Part XAB of the Planning and Development Act, 2000 (as amended) ("the 2000 Act") and in accordance with the requirements of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the Habitats Directive).

3 It considers the implications of the Proposed Scheme, on its own and in combination with other plans or projects, for European sites[1] in view of the conservation objectives of those sites. It includes a scientific examination of evidence and data to identify and assess the implications of the Proposed Scheme for any European sites in view of the conservation objectives of those sites. The NIS considers whether the Proposed Scheme, by itself and in combination with other plans or projects, would adversely affect the integrity of any European sites. In reaching a conclusion in this regard consideration is given to any mitigation measures necessary to avoid or reduce any potential negative impacts.

4 This NIS has been prepared following an assessment of the potential for, in view of best scientific knowledge, the Proposed Scheme to have significant effects, either individually or in combination with other plans or projects on European sites, set out in an Appropriate Assessment (AA) Screening Report.

5 A Screening for AA was undertaken and a determination was prepared by the NTA (both published on the NTA website). The AA Screening 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."

6 Since the publication of the AA Screening, there have been updates to land plans used in the overall assessment of the Proposed Scheme (See Section 4.2 and 9). However, the conclusions of the AA Screening and determination remain unchanged. This NIS assesses the final Proposed Scheme design.

7 Following an examination, analysis and evaluation of all relevant information and in view of best scientific knowledge, and applying the precautionary principle, that report concluded that there is the possibility for significant effects on European sites to arise, either from the project alone or in combination with other plans and projects.

8 Accordingly, a Stage Two AA of the Proposed Scheme is required in this instance as, in the professional opinion of Scott Cawley Ltd., it cannot be excluded, in view of best scientific knowledge and on the basis of

[1] The Natura 2000 network of sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation, composed of sites hosting the natural habitat types listed in Annex I and species listed in Annex II, and special protection areas classified pursuant to the Birds Directive (2009/147/EC). 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* – as defined under the Planning and Development Acts and/or Birds and Habitats Regulations (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as candidate Special Areas of Conservation (cSACs) and Special Protection Areas (SPAs).

objective information, that the Proposed Scheme, either individually or in combination with other plans or projects, will have a significant effect on some European site(s) in view of their conservation objectives.

9 Thus, the purpose of this NIS is to provide an examination, analysis and evaluation of the potential impacts of the Proposed Scheme on European sites and to present findings and conclusions with respect to the Proposed Scheme in light of the best scientific knowledge in the field. This NIS will inform and assist the competent authority, An Bord Pleanála, in carrying out its AA as to whether or not the Proposed Scheme will adversely affect the integrity of any European sites, either alone or in combination with other plans and projects, taking into account their conservation objectives.

10 The Proposed Scheme is neither connected with nor necessary to the management of any European sites.

11 It is the considered view of the authors of this NIS (Scott Cawley Ltd.) that, following the implementation of the mitigation measures prescribed in Section 7.1.4, the Proposed Scheme will not, individually or in-combination with other plans or projects, have any adverse effect on the integrity of any European sites in view of their conservation objectives.

## 2 Legislative Context

12 Article 6(3) of the Habitats Directive states that:

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

13 For the purposes of this application for approval, which is made pursuant to the provisions of Section 51 of the Roads Act 1993, as amended, the obligations under Article 6(3) are transposed into Irish law by Part XAB of the Planning and Development Acts 2000 as amended ("the 2000 Act"). Subsection 177U(4) of the 2000 Act provides for screening for AA as follows:

> *'The competent authority shall determine that an appropriate assessment of [...] a proposed development [...] is required if it cannot be excluded, on the basis of objective information, that the [...] proposed development, individually or in combination with other plans or projects, will have a significant effect on a European site.'*

14 For the reasons set out in detail in the AA Screening Report included in the application documentation, a Stage Two AA of the Proposed Scheme is required to be undertaken by the Board pursuant to Article 6(3) of the Habitats Directive and Section 177T(V) of the 2000 Act.

15 In the latter context, subsections 177T (1) and (2) provide that:

> "*a Natura Impact Statement means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own or in combination with other plans or projects, for one or more than one European site, in view of the conservation objectives of the site or sites*'
>
> …*a Natura Impact Statement…shall include a report of a scientific examination of evidence and data, carried out by competent persons to identify and classify any implications for one or more than one European site in view of the conservation objectives of the site or sites*'.

16 Consideration has been given in the preparation of this report, to the evolution in interpretation and application of directives and national legislation arising from jurisprudence of the European and Irish courts, in respect of Article 6 of the Habitats Directive, in particular.

# 3 Description of the Proposed Scheme

17 The Following sections provide information to facilitate the AA of the Proposed Scheme to be undertaken by the competent authority.

18 A description of the Proposed Scheme and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Proposed Scheme to affect the receiving ecological environment (e.g. geological, hydrogeological and hydrological data etc.).

19 The potential impacts are examined in order to define the potential zone of influence (ZoI) of the Proposed Scheme on the receiving environment. This then informs the assessment of whether the Proposed Scheme will result in significant effects on any European sites (i.e. affect the conservation objectives supporting the favourable conservation condition of the European sites' QIs or SCIs).

## 3.1 Overview

20 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 via quiet streets at the southern end of the Proposed Scheme.

21 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; and
- 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.

22 The main characteristics of the Proposed Scheme of relevance to the ecological assessment are outlined under the Construction and Operational Phases, as outlined below.

23 See Figure 1 (at the end of the NIS) for the Proposed Scheme Location Plan and Appendix I and II for the General Arrangement drawings in respect of the Proposed Scheme layout and the proposed surface water drainage, respectively.

24 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; installation of lighting columns; and,
- Landscaping and tree planting, and reinstatement of temporary land acquisitions.

### *3.1.1* Structural / Demolition Works

25 The following are the main structural works that form part of the Proposed Scheme works:

#### 3.1.1.1 Structure No. 02: Stone Boat Boardwalk at Mount Argus

26 The proposed boardwalk will provide a link between Sundrive Road and Mount Argus View. The boardwalk will be approximately 40m long and 4m wide. The structure will be independently support by bored piles.

27 The proposed construction methodology presented here is a broad outline only, with some work sequences being dependent on the final detail of the appointed contractors preferred construction methodology:

- Installation of protective measures to prevent discharge to the watercourse;
- Foundations for the boardwalk will be constructed by the installation of continuous flight auger (CFA) bored piles into the bank of the River Poddle;
- After installation of the appropriate foundations the bridge deck will be constructed by lifting in and joining steel sections and prefabricated elements; and,
- Reinstatement of adjacent areas.

#### 3.1.1.2 Structure No. 01A: Cycle / Pedestrian Bridge to West of Robert Emmet Bridge

28 The proposed cycle / pedestrian bridge will carry pedestrians and two lanes of cycle traffic displaced from Robert Emmet Bridge as a result of the provision of bus lanes. The footbridge will be approximately 24m long and 6m wide. The proposed structure will be independently supported by reinforced concrete abutments and 2 intermediate steel piers. The footbridge will overspan the piers to concrete abutments.

29 The proposed construction methodology presented here is a broad outline only, with some work sequences being dependent on the final detail of appointed contractors preferred construction methodology:

- Existing sections of parapet walls will be removed and temporary supports installed;
- Foundations and abutments for the footbridge will be constructed by the installation of CFA bored piles into the bank of the Royal Canal and bank seats at each end of the bridge;
- Preformed steel piers will be installed on each side of the canal;
- After installation of the appropriate foundations the bridge deck will be lifted in as a single precast unit, onto the pre-formed pier units; and,
- Reinstatement of adjacent areas.

#### 3.1.1.3 Structure No. 01B: Pedestrian Bridge to East of Robert Emmet Bridge

30 The proposed pedestrian bridge will carry pedestrians displaced from Robert Emmet Bridge as a result of the provision of bus lanes. The footbridge will be approximately 25m long and 3.5m wide. The structure will be independently supported by two piers atop single bored piles. The footbridge will over span the piers to concrete abutments.

31 The proposed construction methodology presented here is a broad outline only, with some work sequences being dependent on the final detail of appointed contractors preferred construction methodology:

- Existing sections of retaining wall adjacent to Grove Road and Windsor Terrace will be removed and temporary supports installed;
- Foundations and abutments for the footbridge will be constructed by the installation of CFA bored piles into the bank of the Grand Canal and bank seats at each end of the bridge;
- Preformed steel piers will be installed on each side of the canal;
- After installation of the appropriate foundations the bridge deck will be lifted in as a single precast unit from the northern side, onto the pre-formed pier units; and,
- Reinstatement of adjacent areas.

#### 3.1.1.4 Structure No. 03: Retaining Wall on Northern Approach to Robert Emmet Bridge

32 The proposed retaining wall will carry pedestrians and one lane of cycle traffic displaced from Clanbrassil Street Upper as a result of the provision of bus lanes. The retaining wall will be approximately 60m long and up to 3.5m high.

33 The proposed construction methodology presented here is a broad outline only, with some work sequences being dependent on the final detail of appointed contractors preferred construction methodology:

- Following demolition of existing property (see Section 3.1.1.6), partial demolition of lower retaining wall and regrading of ground to enable vehicular access;
- Excavations to construct strip foundations, including any necessary temporary supports to the existing retaining wall foundations;
- Formwork for concrete retaining wall;
- Pouring of concrete;
- Backfilling; and,
- Finishes and reinstatement of adjacent areas.

#### 3.1.1.5 Structure No. 04: Ramp on Eastern Approach to Robert Emmet Bridge

34 The proposed ramp will carry pedestrians from Windsor Terrace to the new footbridge on the east side of Robert Emmet Bridge. The existing ramp at the edge of the road will be widened by a cantilever over the existing retaining wall to accommodate a 2m wide footpath. It will also be lengthened a little to approximately 20m long to provide a suitable gradient and to fit with the levels of the proposed eastern footbridge over the canal. Very limited new foundations will be required as the existing wall foundations can support most of the ramp cantilever.

35 The proposed construction methodology presented here is a broad outline only, with some work sequences being dependent on the final detail of appointed contractors preferred construction methodology:

- Installation of protective measures to prevent discharge to the Grand Canal;
- Foundations for the extended section of the ramp will be constructed by shallow excavation to remove topsoil to expose the subsoil;
- A low reinforced earth ramp structure will be provided over a short section as far as the start of the existing ramp retaining wall;
- The existing ramp retaining wall will be extended vertically a little to suit the profile and levels of the new ramp;
- A concrete cantilever deck will be provided on top of the extended existing retaining wall with parapet railings provided on the outer edges on both the canal and road sides; and,

- Reinstatement of adjacent areas.

#### 3.1.1.6 Demolition of Existing Gordons Fuels Residence

36 Section 3a will encompass a length of 90m along Clanbrassil Street Upper, at the Grand Canal. Offline cycle / pedestrian bridges will be installed on each side of the existing Robert Emmet Bridge, supported by new piled foundations. At this location, the road will be widened by 2m and a retaining wall up to 4.5m high will be constructed on piled foundations on the west side of the road. The existing bungalow to the west of the road will be demolished and the access to Gordon's Fuels / Waterways Ireland lands will be realigned through what is now the bungalow. Structural fill will be required to allow for road widening. Full pavement reconstruction is expected over the full road width. The expected construction duration will be 18 months.

### *3.1.2* Surface Water Drainage Infrastructure

37 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 currently discharges to a combination of surface water sewers that discharge to the River Poddle in the southern part of the Proposed Scheme, as well as the existing combined sewer systems to the Ringsend wastewater treatment plant (WwTP).

38 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.

39 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 Proposed 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 water body. A full breakdown is provided in Table 1.

40 The drainage design principles ensure that there will be no net increase in the surface water flow discharged to these receptors.

41 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, permeable paving and infiltration trenches in new soft landscaped areas. These Sustainable Drainage Systems (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.

42 The drainage system for the Proposed Scheme will discharge to one surface water body (Poddle_010) and one WwTP (Ringsend). Details of the proposed drainage treatment for each catchment and subsequently each water body are provided in Table 1. This table also includes details of the changes to impermeable areas. No new outfalls are proposed.

43 Proposed Surface Water Drainage Works are provided in Appendix II and SuDS solutions are summarised in Table 1.

***Table 1: Summary of Changes in Impermeable Areas and SuDS Proposed by Water Body***

| Water Body | Approx. Impermeable Surface Area | | | SuDS Measures Proposed |
|---|---|---|---|---|
| | Existing ($m^2$) | Additional ($m^2$) | Percentage Change (%) | |
| Poddle_010 | 22,374 | 199 | 0.89 | Permeable paving on boardwalk |
| Ringsend WwTP | 90,482 | 714 | 0.8 | Permeable paving in car park and bridge, attenuation / oversized pipe |

### *3.1.3* Lighting

44 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.

### *3.1.4* Landscape and Urban Realm

45 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.

### *3.1.5* Construction Compounds

46 Three Construction Compounds will be required along the length of the Proposed Scheme to facilitate construction:

- Construction Compound K1 will be located in the public car park, located between Sundrive Road and Mount Argus Way;
- Construction Compound K2 will be located on Harold's Cross Road, in the grounds of Our Lady's Hospice; and,
- Construction Compound K3 will be located to the west of Clanbrassil Street Lower at St. Patrick's Court.

47 The locations of the three Construction Compounds are shown in Table 1-3 The Construction Compounds will be used to store materials, plant and equipment, to manage the activities from and to provide welfare facilities for construction personnel. Limited car parking will also be provided at Construction Compound K1 and K2.

48 The Construction Compounds will be in place for the duration of the Construction Phase of the Proposed Scheme. The Construction Compounds will generally be dismantled and the sites returned to their existing condition on completion of the Construction Phase.

***Image 1: Location, Extent and Layout of Construction Compound K1***

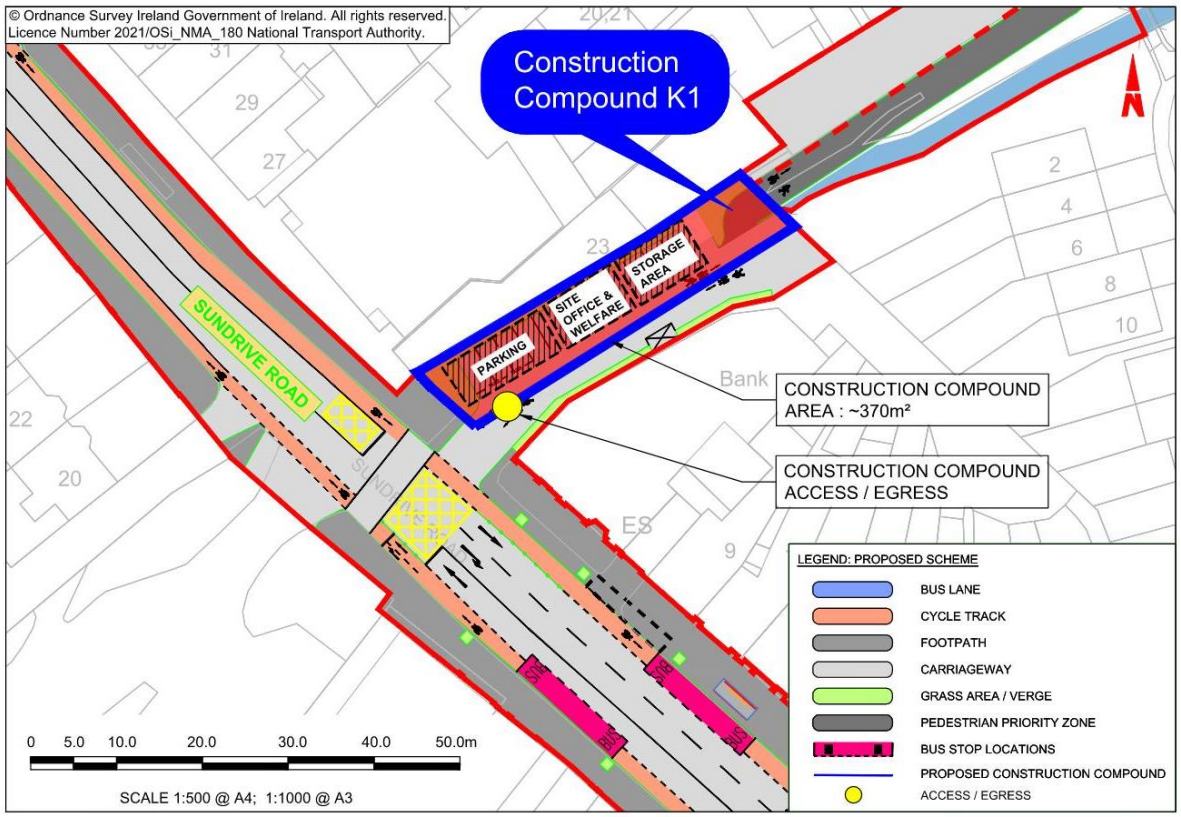



***Image 2: Location, Extent and Layout of Construction Compound K2***

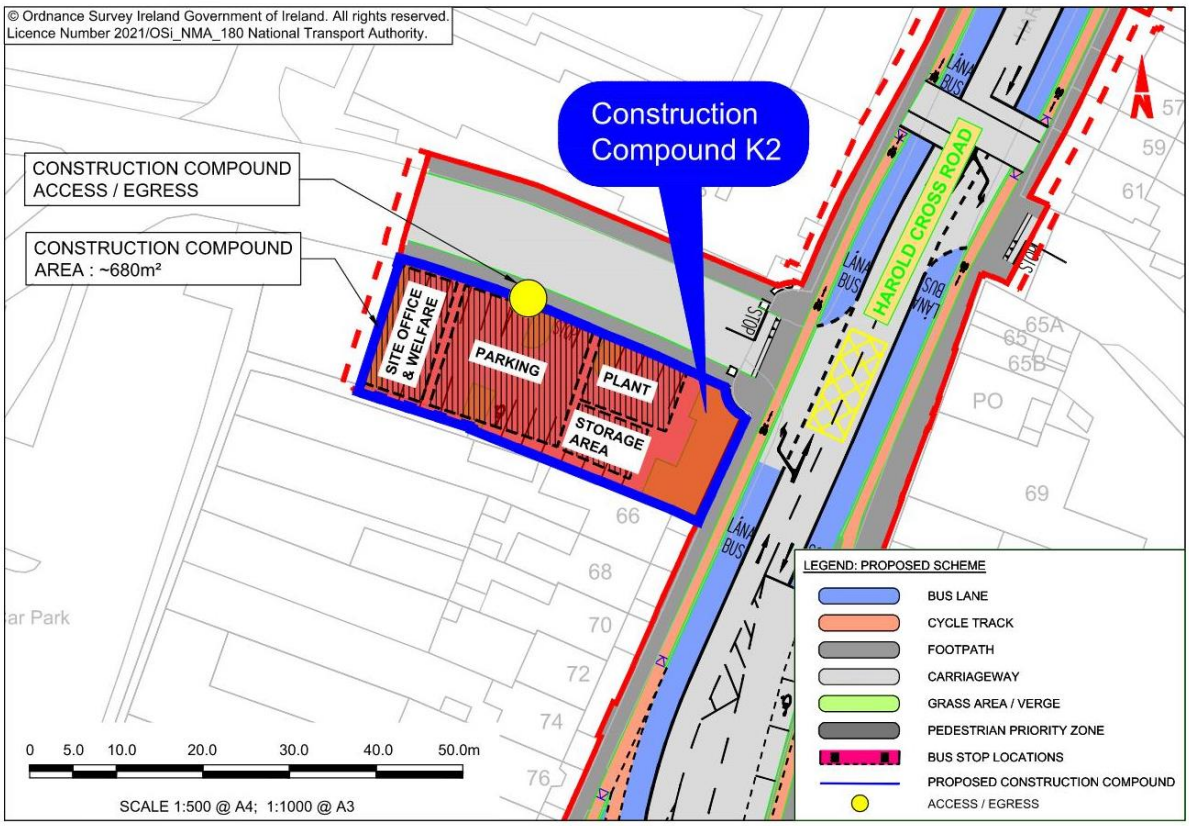
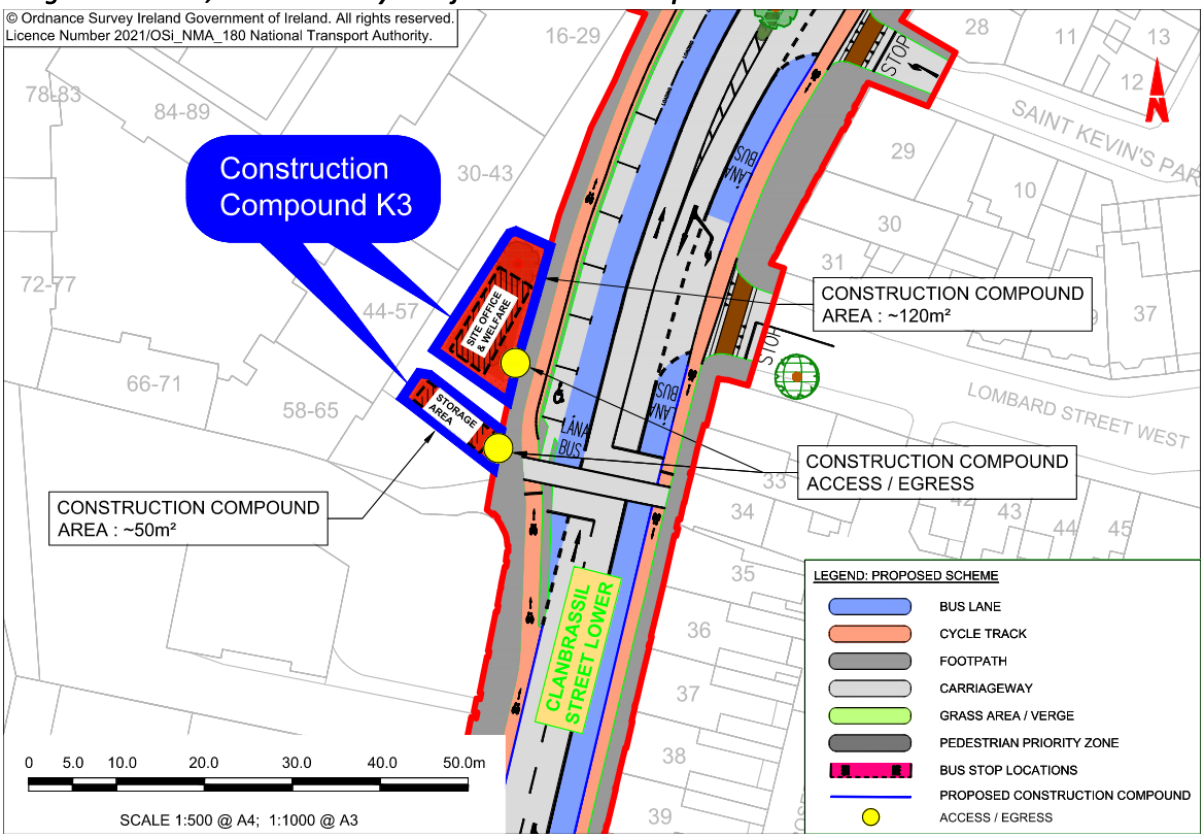


***Image 3: Location, Extent and Layout of Construction Compound K3***




### *3.1.6* Estimated Scheme Duration

49 The duration of the Construction Phase is estimated to be 18 months. Given the significance of this existing transport corridor, individual works areas are sufficiently independent of one another so that the traffic impact of the construction works will be minimised.

### 3.1.7 Operational Phase

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

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

## 4 Methodology

### 4.1 Scientific and Technical Competence Relied Upon

51 This NIS was co-authored by Laura Higgins and Kristie Watkin Bourne, with updates from and Eoin Cussen and Tim Ryle, reviewed by Colm Clarke, Aebhín Cawley and Suvi Harris of Scott Cawley Ltd. The background and experience of the author and contributors to this report are set out below.

*Kristie Watkin-Bourne*

52 Kristie Watkin-Bourne is a Senior Consultant Ecologist at Scott Cawley Ltd. She holds a first-class honours degree in Physical Geography from Swansea University, and a first-class master's degree in Applied Environmental Science from University College Dublin. She is a CIEEM Member (Qualifying) and is experienced in conducting a range of terrestrial and aquatic ecological surveys for habitat and site appraisals, species monitoring, and impact assessment. With five years consultancy experience, Kristie has

a wide range of experience in AA, Ecological Impact Assessment, Cumulative Impact Assessment, and Strategic Environmental Assessment of plans and projects within the Irish planning environment. Kristie has worked on behalf of public sector bodies including Irish Water, The National Transport Authority, and several County Councils in addition to private developers across infrastructure, renewable energy, and residential development projects.

*Laura Higgins*

53 Laura Higgins is a Senior Ecologist at Scott Cawley Ltd. She holds a first-class honours degree in Zoology from Trinity College Dublin. Laura has a range of fieldwork experience in Ireland including habitat, invasive species and protected species surveys. She has surveyed a wide range of mammal, bird and invertebrate species in terrestrial and aquatic habitats in Ireland. Laura has a great interest in ecology and is continually improving her professional skills through training courses and volunteer work. Since joining Scott Cawley Ltd, her work has included the collection of ecological data, data analysis and AA reports and Ecological Impact Assessments for residential and infrastructural projects across the country.

*Eoin Cussen*

54 Eoin Cussen is a Senior Consultant Ecologist with Scott Cawley Ltd. Eoin holds a BSc (Hons) in Zoology from University College Cork and MSc (Hons) in Ecological Assessment from the same institution. Eoin is an experienced ecologist with over 4 years' professional postgraduate experience in ecological consultancy including planning related casework for state and non-governmental organisations within Ireland and the UK, input to and preparation of AA screenings, NIS, Preliminary Ecological Assessments and Ecological Impact Assessments, and a wide range of experience of ecological surveys for protected habitats and species including otters, bats, birds.

*Colm Clark*

55 Colm Clarke is a Principal Ecologist with Scott Cawley Ltd., and has over six years' experience in ecological consultancy. He obtained an honours degree in Natural Sciences, with a specialisation in Botany, from Trinity College Dublin, and a Masters in Biodiversity and Conservation from the same institution. Colm is a full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM), a member of the Irish Environmental Law Association (IELA), and chairperson of the Dublin Bat Group (an affiliate group of Bat Conservation Ireland (BCI). Colm also organises field excursions for the Botanical Society of Britain and Ireland (BSBI) Dublin/East Coast Local Group. Colm's principal specialisms are in botany, and bats, although he also has experience in a range of other fauna surveys, including freshwater white-clawed crayfish, freshwater pearl mussel, badger and otter. Colm is experienced in the survey and assessment of a variety of EU Annex I habitat types from his time at Scott Cawley, and he is Scott Cawley's lead ecologist on bat mitigation. Colm has been project manager and lead author on a large number of Ecological Assessments for Scott Cawley, spanning industrial facilities, residential development, transport infrastructure, and commercial developments.

*Tim Ryle*

56 Tim Ryle is a Principal Ecologist with Scott Cawley Ltd. He holds an honours degree in Botany from University College Dublin and was later awarded a Ph.D. from the same institution. He is a full Member of the Institute of Environmental Scientists. Tim is an experienced ecological consultant with twenty years' experience in in private consultancy in designing, undertaking and managing a wide range of ecological survey and in assessing impacts and designing mitigation measures and biodiversity enhancements, in particular for protected species including badgers, otters, bats, birds, amphibians as well as habitats of conservation importance. He is also experienced in undertaking AA for small-scale development projects and larger infrastructural projects, land plans as well as national/government plans.

*Suvi Harris*

57 Suvi Harris is a Senior Environmental Project Manager at Scott Cawley Ltd. Suvi holds an honours degree BSc. in Botany from University College Dublin and a Ph.D. in Environmental Risk Assessment from University College Dublin. Suvi is a Full member of the CIEEM. Suvi has over 8 years' experience in environmental consultancy and over 12 years' experience in the environmental field with a particular focus on aquatics.

Suvi has worked on national and international multidisciplinary teams developing environmental and ecological solutions for engineering challenges. Suvi leads, coordinates and assists on a range of areas including EIA, AA, WFD Compliance Assessment, Surface Water Impact Assessment, Sustainability Appraisal, Planning, Licencing etc. Suvi holds a deep technical understanding of the relevant National and European Legislation which govern environmental protection and planning in Ireland.

*Aebhín Cawley*

58 Aebhín Cawley is the Chief Executive Officer (CEO) with Scott Cawley Ltd. She holds an honours degree in Zoology from Trinity College, Dublin and a postgraduate diploma in Physical Planning at Trinity. She is a Chartered Environmentalist (CEnv) with the Society for the Environment (Soc Env) and a Full Member of the CIEEM. Aebhin Cawley is an experienced ecological consultant with extensive experience in public and private sector projects including complex development types including infrastructure, renewable energy and ports. Aebhín has delivered lectures and training on AA to a range of organisations and professional institutes and regularly provides AA training to local authorities and other public sector organisations. She authored guidelines on AA for the Environmental Protection Agency (EPA) and delivered training on its application to its inspectorate.

### 4.2 Guidance and Approach

59 This NIS has been prepared having regard to the following documents.

<u>European Commission Guidance</u>

- *Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021);
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019);
- *Communication from the Commission on the Precautionary Principle* (European Commission 2000)[2];
- *Nature and Biodiversity Cases – Ruling of the European Court of Justice* (European Commission 2006);
- *Interpretation Manual of European Union Habitats. Version EUR 28.* (European Commission, 2013); and,
- *Article 6 of the Habitats Directive – Rulings of the European Court of Justice* (European Commission Final Draft September 2014).

<u>Irish Guidance</u>

- Appropriate Assessment Screening for Development Management: OPR Practice Note PN01 (OPR, 2021);
- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government 2010 revision); and,

[2] The precautionary principle is a guiding principle that derives from Article 191 of the Treaty on the Functioning of the European Union and has been developed in the case law of the European Court of Justice (e.g. ECJ case C-127/02 – Waddenzee, Netherlands).

This guidance document notes that the precautionary principle "*covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection*".

Applying the precautionary principle in the context of screening for appropriate assessment requires that where there is uncertainty or doubt about the risk of significant effects on a European site(s), it should be assumed that significant effects are likely and AA must be carried out.

- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. *Circular NPW 1/10 & PSSP 2/10* (NPWS, 2010).

In addition, regard has been had to guidance in characterising impacts, including determining magnitude and significance of impacts, as relevant in the application to Appropriate Assessment and European sites:

- *Guidelines for Ecological Impact Assessment in the UK and Ireland* (Chartered Institute of Ecology and Environmental Assessment, 2018).

### 4.3 Assessment Methodology

60 The Proposed Scheme (including the proposed design, construction methodologies and operational effects) was analysed and assessed to identify the potential impacts associated with the Proposed Scheme that could affect the ecological environment.

61 From this, the ZoI of the Proposed Scheme was defined. Based on the identified impacts, and their ZoI, the European sites potentially at risk of any direct or indirect impacts were identified.

62 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 QIs or SCIs species), and a pathway between the source and the receptor (e.g. by air for air borne pollution, or a pathway by a watercourse for mobilisation of pollution)). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

63 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 ZoI of the Proposed Scheme, and therefore potentially at risk of significant effects. The ZoI is defined as the area within 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 objectives (as defined in CIEEM, 2018).

64 The identification of a source-pathway-receptor risk does not automatically mean that significant effects will arise. Rather, the likelihood of 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 air borne pollution) and the characteristics of the receptor (e.g., the sensitivities of the European site and its QIs / SCIs). However, identification of the risk does mean that there is a possibility of an effect on the environment occurring, with the significance of the effect depending upon the nature of and exposure to the risk and the characteristics of the receptor. In this case, where there is any uncertainty, the precautionary principle has been applied.

65 This assessment has been undertaken in consideration of all potential impact sources and pathways connecting the Proposed Scheme to European sites, in view of the conservation objectives supporting the conservation condition of the sites' QIs / SCIs.

66 The conservation objectives relating to each European site and its QIs / SCIs are expressed generally for Special Areas of Conservation (SACs) as "*to maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the cSAC has been selected*", and for Special Protection Areas (SPAs) "*to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*".

67 Following on from this, and as defined in the Habitats Directive, favourable conservation status (or condition, at a site level) of a habitat is achieved when:

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

68 The favourable conservation status (or condition, at a site level) of a species is achieved when:

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

69 Where site-specific conservation objectives have been prepared for the individual European sites, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured (i.e. an impact which affects the achievement of favourable conservation condition, as measured by the attributes and targets, is an impact on site integrity).

70 In the case of Ireland's Eye SPA, Skerries Islands SPA, The Murrough SPA and Dalkey Islands SPA, site specific conservation objectives are not available, or have not been published. Where that is the case, sample site specific attributes and targets for a given QI / SCI have been compiled, based on those from other relevant European sites, as a guide in assessing how the conservation condition of these sites could potentially be affected by the Proposed Scheme. In the case of some QIs / SCIs in certain European sites, the conservation objective is to restore rather than maintain conservation condition and this distinction is taken into account in the assessment; as is any legacy damage to European sites that has occurred since their designation, insofar as possible.

71 To the extent that the assessment carried out as part of the preparation of the NIS has found that the Proposed Scheme has the potential to impact on European sites, avoidance and mitigation measures have been included as part of the Proposed Scheme to ensure that, in view of the European sites' conservation objectives, the Proposed Scheme will not adversely affect the integrity of the sites concerned.

### 4.4 Desk Study

72 The data sources used to inform the assessment presented in this report are as follows (accessed in October 2020 and updated May 2022):

- Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) from www.npws.ie[3], including conservation objectives documents;
- Online data records available on National Biodiversity Data Centre Database (NBDC online database 2022);
- Online data records made available via a National Parks and Wildlife Service (NPWS) data request (NPWS 2020);
- Information on the status of EU protected habitats and species in Ireland (NPWS, 2019a, 2019b and 2019c);
- Ordnance Survey Ireland (OSI) orthophotography (from 1995 to 2012) for the Proposed Scheme study area;
- Bus Connects drone imagery (surveyed 2020);
- Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data[4]; "
- Records from the Botanical Society of Britain and Ireland (BSBI);

[3] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2023_02 and SPA_ITM_2021_10.

4 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 contained within the *Flora of County Dublin*[5];
- Environmental information / data for the area available from the EPA website www.epa.ie
- Information on light-bellied Brent goose inland feeding sites[6];
- The results of ecological surveys undertaken as part of the Environmental Impact Assessment (EIA) studies for the Proposed Scheme (see Section 5 below for details); and
- Information on the location, nature and design of the Proposed Scheme.

### 4.5 Consultations

73 Table 2 outlines the AA issues raised during consultation.

***Table 2: AA Issues Raised During Consultation***

| Consultee | Date of Consultation | Issues Raised | Relevant Section of the AA Screening where this is addressed |
|---|---|---|---|
| *Department of Housing, Local Government and Heritage* (formerly Department of Culture, Heritage and the Gaeltacht | 30/07/19<br>Ref. G Pre00165/2019 | The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features:<br>• Biodiversity in general and with specific attention to Natura 2000 sites.<br>• 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).<br>• species and / or habitats listed in the Habitats Directive inside or outside of Natura 2000 sites be recorded. | Section 5.1 European sites,<br>Section 4.6 Baseline,<br>Section 7 Assessment of Effects on European sites<br>Section 7.1.4.1 |
| | | Detailed bird surveys should be undertaken at all times of the year to establish areas of the Proposed Scheme used by birds should be included in the AA. | Section 4.6 Baseline,<br>Section 7 Assessment of Effects on European sites |
| | | The Department requires that the AA 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. | Section 6.3 Habitat degradation as a result of introducing / spreading non-native invasive species.<br>A non-native ISMP has been prepared and can be found in the CEMP in Appendix III to the NIS. |

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

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

| Consultee | Date of Consultation | Issues Raised | Relevant Section of the AA Screening where this is addressed |
|---|---|---|---|
| | | 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. | Section 1 Introduction, Section 2 Legislative Context, Section 6.4 Disturbance and Displacement Impacts |
| | | The Department recommended that the Proposed Scheme be subject to AA 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.<br>To assess mitigations, the following tasks must be completed:<br>• List each of the measures to be introduced (e.g., noise bunds, tree planting);<br>• Explain how the measures will avoid the adverse impacts on the site; and,<br>• Explain how the measures will reduce the adverse impacts on the site.<br>Then, for each of the listed mitigation measures:<br>• Provide evidence of how they will be secured and implemented and by whom;<br>• Provide evidence of the degree of confidence in their likely success; and,<br>• Provide a timescale, relative to the project or plan, when they will be implemented.<br>Where residual impacts remain, further mitigation measures may be required:<br>• Evidence should be provided of how mitigation measures will be monitored;<br>• Monitoring should take place immediately down-stream of the Proposed Scheme; and,<br>• The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment. | The Proposed Scheme has been subject to Screening for AA and the production of a Natura Impact statement, which accompanies the planning submission.<br><br>Section 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects |

## 4.6 Baseline Surveys

74 Baseline ecological surveys were undertaken as necessary to inform environmental assessments of the Proposed Scheme. This section describes those ecological surveys which are relevant to and have informed the assessment of likely significant effects on European sites.

### *4.6.1 Habitats and Flora*

75 Habitat surveys were carried out by Scott Cawley Ltd., between June and August 2018 along the then Proposed Scheme alignment. 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 Fossitt[7] and in accordance with Best Practice Guidance for Habitat Survey and Mapping[8]. 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 Edition[9].

### *4.6.2 Fauna Surveys*

76 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 undertaken owing to the intersection of the Proposed Scheme with 2 watercourse, namely the River Poddle and the Grand Canal. 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 38.7km north of the Proposed Scheme in the Boyne River catchment. The nearest known European site designated for white-clawed crayfish is the River Barrow and River Nore SAC, which is located approximately 47.5km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow catchment.

#### 4.6.2.1 Otter

77 The footprint of the Proposed Scheme and suitable lands (e.g., greenfield sites) immediately adjacent were surveyed for otter *Lutra lutra* activity as part of the multi-disciplinary walkover survey, undertaken between June and August 2018, and updated in August and October 2020 and March 2022, and during the aquatic survey undertaken in respect of the Proposed Scheme in July 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 identified during surveys or returned from desktop research. Where present, any evidence of use was recorded.

78 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 each of these sites were surveyed to identify the presence of otter holts in October 2020 and March 2022, with additional evidence from the July 2022 aquatic survey included.

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

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

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

#### 4.6.2.2 Kingfisher

79 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. 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.

80 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.

#### 4.6.2.3 Other Birds

81 The results of the desk study have informed the assessment of potential impacts on breeding bird species arising from the Proposed Scheme.

82 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*[8]. 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.

83 There were no suitable wintering bird sites which would be subject to habitat loss by to 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.

84 Given the existing busy nature of Sundrive Road, the minor works proposed along Sundrive Road (comprising retention of existing surfaces and cycleway tie in) and the existing screening present, in the form of an existing row of 2-storey houses and gardens along the eastern portion of Sundrive Road and an existing mature treeline within the perimeter of Eamonn Ceannt Park, effectively separating the Proposed Scheme from the *ex-situ* winter bird feeding site by approximately 100m. As such, winter bird surveys were deemed unnecessary for the Proposed Scheme. The results of the desk-based study have informed the assessment of potential impacts on wintering bird species arising from the Proposed Scheme.

#### 4.6.2.4 Aquatic Surveys

85 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Previous design iterations of the Proposed Scheme did not require any in-stream works, modifications to banks or significant disturbance, and thereby aquatic surveys were deemed not necessary. Subsequent design iterations of the Proposed Scheme included construction methodologies which involved modifications to banks or significant disturbance were deemed to require aquatic surveys.

86 The desk study identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. Aquatic surveys were carried out in July 20222 at a number of locations namely: the proposed Poddle Cycleway and Stone Boat Boardwalk at Mount Argus View (CBC0011AR001) and the proposed offline footbridges at the existing Robert Emmet Bridge over the Grand Canal (CBC0011AR002) (Triturus Environmental Ltd., 2022, Appendix VI).

# 5 Overview of the Receiving Environment

## 5.1 European Sites

87 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 west.

88 The Proposed Scheme is 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. This is followed by South Dublin Bay SAC, which is located approximately 7.5km downstream of the proposed crossing point on the Grand Canal.

89 There are seven European sites located in Dublin Bay which are downstream of the Proposed Schemes three watercourses that are hydrologically connected to the Proposed Scheme (i.e. River Poddle (Poddle_010), Grand Canal Main Line and Liffey Estuary Lower).

90 There are nine 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 include South Dublin Bay and River Tolka SPA, North Bull Island SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Howth Head Coast SPA, Lambay Island SPA, Malahide Estuary SPA, and The Murrough SPA.

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

92 The European sites present in the vicinity of the Proposed Scheme are shown on Figure 3 and are listed in Table 3, along with their QIs / SCIs and proximity to the Proposed Scheme.

***Table 3: European Sites in the Vicinity of the Proposed Scheme***

| **European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats)** | **Location Relative to the Proposed Scheme** |
|---|---|
| **Special Area of Conservation (SAC)** | |
| **South Dublin Bay SAC [000210]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>2110 Embryonic shifting dunes<br><br>*S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019*<br>NPWS (2013a) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 3.9km east of the Proposed Scheme |
| **North Dublin Bay SAC [000206]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1395 Petalwort *Petalophyllum ralfsii*<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br>2110 Embryonic shifting dunes<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* | Approximately 6.5km north-east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| 2190 Humid dune slacks<br><br>*S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019*<br>NPWS (2013b) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Glenasmole Valley SAC [001209]**<br>6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)<br>6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br><br>*S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021*<br>NPWS (2021a) *Conservation objectives for Glenasmole Valley SAC [001209].* Version 1.0. Department of Housing, Local Government and Heritage | Approximately 7.4km south of the Proposed Scheme |
| **Wicklow Mountains SAC [002122]**<br>3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)<br>3160 Natural dystrophic lakes and ponds<br>4010 Northern Atlantic wet heaths with *Erica tetralix*<br>4030 European dry heaths<br>4060 Alpine and Boreal heaths<br>6130 Calaminarian grasslands of the Violetalia calaminariae<br>6230 Species-rich *Nardus* grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)*<br>7130 Blanket bogs (* if active bog)<br>8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)<br>8210 Calcareous rocky slopes with chasmophytic vegetation<br>8220 Siliceous rocky slopes with chasmophytic vegetation<br>91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles<br>1355 *Lutra lutra* (Otter)<br><br>NPWS (2017a) *Conservation Objectives: Wicklow Mountains SAC 002122.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 8.1km south of the Proposed Scheme |
| **Baldoyle Bay SAC [000199]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 *Salicornia* and other annuals colonizing mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br><br>*S.I. No. 472/2021 - European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021*<br>NPWS (2012) *Conservation Objectives: Baldoyle Bay SAC 000199.* Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht | Approximately 11.5km north-north-east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| **Rockabill to Dalkey Island SAC [003000]**<br>1170 Reefs<br>1351 Harbour porpoise *Phocoena phocaena*<br><br>*S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019*<br>NPWS (2013c) *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 12.2km east of the Proposed Scheme |
| **Howth Head SAC [000202]**<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>4030 European dry heaths<br><br>*S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021.*<br>NPWS (2016) *Conservation Objectives: Howth Head SAC 000202.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 12.2km north-east of the Proposed Scheme |
| **Knocksink Wood SAC [001398]**<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br>91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles<br>91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)*<br><br>*S.I. No. 93/2019 - European Union Habitats (Knocksink Wood Special Area Of Conservation 000725) Regulations 2019*<br>NPWS (2021b) *Conservation Objectives: Knocksink Wood SAC 000725*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage. | Approximately 12.5km north-west of the Proposed Scheme |
| **Rye Water Valley/Carton SAC [001398]**<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br>1014 Narrow-mouthed Whorl Snail *Vertigo angustior*<br>1016 Desmoulin's Whorl Snail *Vertigo moulinsiana*<br><br>*S.I. No. 494/2018 - European Union Habitats (Rye Water Valley/Carton Special Area of Conservation 001398) Regulations 2018*<br>NPWS (2021c) *Conservation objectives for Rye Water Valley/Carton SAC [001398].* Version 1.0. Housing, Local Government and Heritage. | Approximately 13.8km north-west of the Proposed Scheme |
| **Malahide Estuary SAC [000205]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1320 *Spartina* swards (Spartinion maritimae*)*<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae*)*<br>1410 Mediterranean salt meadows *(*Juncetalia maritimi*)*<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* | Approximately 14.3km north of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| *S.I. No. 91/2019 - European Union Habitats (Malahide Estuary Special Area of Conservation 000205) Regulations 2019*<br>NPWS (2013d) *Conservation Objectives: Malahide Estuary SAC 000205.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Ballyman Glen SAC [000713]**<br>7220 Petrifying springs with tufa formation (Cratoneurion)*<br>7230 Alkaline fens<br><br>*S.I. No. 92/2019 - European Union Habitats (Ballyman Glen Special Area Of Conservation 000713) Regulations 2019*<br>NPWS (2019d) *Conservation Objectives: Ballyman Glen SAC 000713*. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht. | Approximately 14.3km south of the Proposed Scheme |
| **Ireland's Eye SAC [002193]**<br>1220 Perennial vegetation of stony banks<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br><br>*S.I. No. 501/2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017*<br>NPWS (2017b) *Conservation Objectives: Ireland's Eye SAC 002193.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | Approximately 15.4km north east of the Proposed Scheme |
| **Rogerstown Estuary SAC [000208]**<br>1130 Estuaries<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1410 Mediterranean salt meadows (Juncetalia maritimi)<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*<br><br>*S.I. No. 286/2018 - European Union Habitats (Rogerstown Estuary Special Area of Conservation 000208) Regulations 2018*<br>NPWS (2013e) *Conservation Objectives: Rogerstown Estuary SAC 000208*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 18.5km north of the Proposed Scheme |
| **Lambay Island SAC [000204]**<br>1170 Reefs<br>1230 Vegetated Sea cliffs of the Atlantic and Baltic coasts<br>1364 Grey seal *Halichoerus grypus*<br>1365 Harbour seal *Phoca vitulina*<br><br>*S.I. No. 294/2019 - European Union Habitats (Lambay Island Special Area of Conservation 000204) Regulations 2019*<br>NPWS (2013f) *Conservation Objectives: Lambay Island SAC 000204. Version 1*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 22.9km north-north-east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| **Special Protection Area (SPA)** | |
| **South Dublin Bay and River Tolka Estuary SPA [004024]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.*<br>NPWS (2015a) *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 3.6km east of the Proposed Scheme |
| **North Bull Island SPA [004006]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A052 Teal *Anas crecca*<br>A054 Pintail *Anas acuta*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A160 Curlew *Numenius arquata*<br>A162 Redshank *Tringa totanus*<br>A169 Turnstone *Arenaria interpres*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A999 Wetlands & Waterbirds<br><br>*S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.*<br>NPWS (2015b) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 6.5km north east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| **Wicklow Mountains SPA [004040]**<br>A098 Merlin *Falco columbarius*<br>A103 Peregrine *Falco peregrinus*<br><br>*S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.*<br>NPWS (2022a) *Conservation objectives for Wicklow Mountains SPA [004040]. First Order Site-specific Conservation Objectives Version 1.0*. Department of Housing, Local Government and Heritage. | Approximately 8.2km south of the Proposed Scheme |
| **Baldoyle Bay SPA [004016]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.*<br>NPWS (2013g) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 11.7km north east of the Proposed Scheme |
| **Dalkey Islands SPA [004172]**<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010*<br>NPWS (2022b) *Conservation objectives for Dalkey Islands SPA [004172]. First Order Site-specific Conservation Objectives Version 1.0.* Department of Housing, Local Government and Heritage. | Approximately 12.9km south-east of the Proposed Scheme |
| **Malahide Estuary SPA [004025]**<br>A005 Great Crested Grebe *Podiceps cristatus*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A054 Pintail *Anas acuta*<br>A067 Goldeneye *Bucephala clangula*<br>A069 Red-breasted Merganser *Mergus serrator*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus* | Approximately 14.3km north-north-east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| A999 Wetland and Waterbirds<br><br>*S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.*<br>NPWS (2013h) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | |
| **Howth Head Coast SPA [004113]**<br>A188 Kittiwake *Rissa tridactyla*<br><br>*S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.*<br>NPWS (2022c) *Conservation objectives for Howth Head Coast SPA [004113]. First Order Site-specific Conservation Objectives Version 1.0.* Department of Housing, Local Government, and Heritage. | Approximately 14.7km north-east of the Proposed Scheme |
| **Ireland's Eye SPA [004117]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br><br>*S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.*<br>NPWS (2022d) *Conservation objectives for Ireland's Eye SPA [004117]. First Order Site-specific Conservation Objectives Version 1.0*. Department of Housing, Local Government and Heritage | Approximately 15.2km north-east of the Proposed Scheme |
| **Rogerstown Estuary SPA [004015]**<br>A043 Greylag Goose *Anser anser*<br>A046 Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A162 Redshank *Tringa totanus*<br>A999 Wetlands<br><br>*S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.*<br>NPWS (2013i) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | Approximately 18.8km north-north-east of the Proposed Scheme |
| **Lambay Island SPA [004069]**<br>A009 Fulmar *Fulmarus glacialis*<br>A017 Cormorant *Phalacrocorax carbo* | Approximately 22.7km north-north-east of the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| A018 Shag *Phalacrocorax aristotelis*<br>A043 Greylag Goose *Anser anser*<br>A183 Lesser Black-backed Gull *Larus fuscus*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br>A204 Puffin *Fratercula arctica*<br><br>*S.I. No. 242/2010 - European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.*<br>NPWS (2022e) *Conservation objectives for Lambay Island SPA [004069].* Generic Version 9.0. Department of Housing, Local Government and Heritage | |
| **Skerries Islands SPA [004122]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A046 Brent Goose *Branta bernicla hrota*<br>A148 Purple Sandpiper *Calidris maritima*<br>A169 Turnstone *Arenaria interpres*<br>A184 Herring Gull *Larus argentatus*<br><br>*S.I. No. 245/2010 - European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.*<br>NPWS (2022f) *Conservation objectives for Skerries Islands SPA [004122]. First Order Site-specific Conservation Objectives Version 1.0*. Department of Housing, Local Government and Heritage | Approximately 28.3km north of the Proposed Scheme |
| **The Murrough SPA [004186]**<br>A001 Red-throated Diver *Gavia stellata*<br>A043 Greylag Goose *Anser anser*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A050 Wigeon *Anas penelope*<br>A052 Teal *Anas crecca*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A184 Herring Gull *Larus argentatus*<br>A195 Little Tern *Sterna albifrons*<br><br>*S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.*<br>NPWS (2022g) *Conservation objectives for The Murrough SPA [004186]. First Order Site-specific Conservation Objectives Version 1.0.* Department of Housing, Local Government and Heritage. | Approximately 28.4km south-south-east of the Proposed Scheme |
| **Rockabill SPA [004014]**<br>A148 Purple Sandpiper *Calidris maritima*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea* | Approximately 29km from the Proposed Scheme |

| European Site Name [Code] and its QI(s) / SCI(s) (*Priority Annex I Habitats) | Location Relative to the Proposed Scheme |
|---|---|
| *S.I. No. 94/2012 - European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004014)) Regulations 2012.*<br>NPWS (2013j) Conservation Objectives: Rockabill SPA [004014]. Version 1. Department of Culture, Heritage and the Gaeltacht. | |

### 5.2 Habitats

93 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) (present as a mosaic with GA2 habitat);
- Residential (comprised of areas of residential properties and gardens);
- Mixed broadleaved woodland (WD1);
- Scattered trees and parkland (WD5);
- Treelines (WL2);
- Scrub (WS1); and,
- Ornamental / non-native shrub (WS3).

94 No Annex I habitats were recorded inside the boundary of the Proposed Scheme. This includes Dry meadows and grassy verges habitat (GS2), which in certain situation corresponds to Lowland hay meadows (*Alopecurus pratensis, Sanguisorba officinali*s) (6510). The species, management and extent of the habitat along the Proposed Scheme is not analogous to the Annex I hay meadow habitat.

### 5.3 Flora and Fauna Species

#### *5.3.1 Flora*

95 No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.

96 There were no non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 identified along or adjacent to the Proposed Scheme.

97 Records in close proximity to the Proposed Scheme include historical records of the Flora Protection Order (FPO) species opposite-leaved pondweed *Groenlandia densa* along the Grand Canal within the 2km Grid O13L (NBDC online database). Results returned from NPWS data search included 31 records of opposite-leaved pondweed clusters immediately adjacent (i.e., within approximately 50m) of Robert Emmet Bridge; three records were returned from the east of the bridge in 2013. There were 28 records returned from the west of Robert Emmet Bridge; 10 in 2012, 11 records in 2013 and 7 records in 2014 (NPWS data request 2021). Additional aquatic surveys carried out by Triturus Environmental Ltd. along the Grand Canal for the TII's MetroLink Project, which were reviewed as part of the current assessment, did not record this species or any other aquatic FPO species within the Charlemont area of the Grand Canal, directly downstream of Robert Emmet Bridge.

98 The desk study returned records of a total of sixteen species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 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*[10] along the Grand Canal at Robert Emmet Bridge, records of Spanish bluebell *Hyacinthoides hispanica* in Eamonn Ceannt Park, three-cornered garlic *Allium triquetrum* along the River Poddle at Blarney Park, Japanese knotweed *Reynoutria japonica* in a private residence on Mount Tallant Avenue, as well as, records of New Zealand pygmyweed *Crassula helmsii* recorded along the Grand Canal by Triturus Environmental Ltd. during aquatic surveys carried out for the TII Metrolink project downstream of Robert Emmet Bridge (Triturus Environmental Ltd., 2021). 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 and Japanese Knotweed *Reynoutria japonica*.

### *5.3.2 Otter*

99 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 Proposed Scheme at Willingtown Court Bridge and approximately 4km from the Proposed Scheme at Tymon Park[11].

100 No signs of otter, an Annex II species, were originally 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 pedestrian / cycle bridges at the existing Robert Emmet Bridge over the Grand Canal. However, the July 2022 aquatic survey recorded a single otter spraint on the ledge underneath Emmet Bridge.

101 The nearest European site for which this species is designated is the Wicklow Mountains SAC, which is located approximately 8.1km south (as the crow flies) 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 provide the key pathway to Wicklow Mountains SAC, whereas the Proposed Scheme will discharge to 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.

### *5.3.3 Marine mammals*

102 The Proposed Scheme is hydrologically connected to Dublin Bay via the Liffey Estuary Upper, through the Poddle_010, and the Liffey Estuary Lower through Ringsend WwTP. Harbour seal, grey seal, and harbour porpoise 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.

[10] Delisted as Third Schedule species but often occurs alongside *E nuttallii*.

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

### *5.3.4 Kingfisher*

103 The desk study found that kingfisher *Alcedo atthis*, an Annex I 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.

104 Habitat suitability assessments 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 cycle / pedestrian bridges at the existing Robert Emmet Bridge over the Grand Canal. No kingfisher were recorded within the footprint of the Proposed Scheme, during the multi-disciplinary or habitat suitability assessment surveys.

105 The nearest European site for which this species is designated is 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.

### *5.3.5 Other Birds*

106 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*.

107 The desk study returned records of a total of 41 wintering bird species in the vicinity of the Proposed Scheme (i.e., Grid Square O13). Records included 9 species listed under Annex I of the Birds Directive and 26 SCI species. The majority of wintering birds identified in the desk-based review are typically found in coastal, estuarine and intertidal habitats including the Liffey Estuary and Dublin Bay. A desk-based review 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.

108 A review of a study into light-bellied Brent goose inland feeding sites has identified no known inland wintering bird feeding sites in 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 approximately 60m from the Proposed Scheme with viable winter bird feeding area located approximately 60m from the Proposed Scheme.

109 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. No wintering bird surveys were carried out as part of this Proposed Scheme due to the nature of the proposed works in proximity to Eamonn Ceannt Park (consisting of retention of existing layout and tie in of cycleways), the existing busy nature of Sundrive Road and the presence of existing screening between the Proposed Scheme and Eamonn Ceannt Park, in the form of a row of 2-storey houses and gardens, and the presence of mature screening vegetation (trees) within the park between the houses and the viable wintering bird feeding areas (playing pitches) within Eamonn Ceannt Park. The results of the desk study have informed the assessment of potential impacts on wintering bird species arising from the Proposed Scheme.

### *5.3.6 Invertebrates*

110 During ecological surveys for the Proposed Scheme, a search for species and or suitable supporting habitat was made. Two species included on Annex II list of Habitats Directive, namely marsh fritillary *Euphydryas aurinia* and white-clawed crayfish *Austropotamobius pallipes* were returned from the desktop review of the NBDC online database. The desk study did not return any records for white-clawed crayfish in watercourses in the ZoI of the Proposed Scheme., and the 2022 aquatic survey (Triturus Environmental Ltd., 2022, Appendix VI) noted that white-clawed crayfish are known from the Grand Canal, but not in the vicinity of Dublin. The River Poddle does not support white-clawed crayfish, being of limited aquatic value,

owing to its highly modified state. The nearest documented record in Dublin for the crayfish is from the Camac River around Clondalkin.

111 There were no records of marsh fritillary from within the footprint of the Proposed Scheme. Desk study records in the wider area were largely historical (pre-1980s). Recent records for marsh fritillary were identified approximately 5.5km north-east of the Proposed Scheme at North Bull Island in 2019 (NBDC 2020). Marsh fritillary are restricted to habitats containing a low, open sward with abundant devil's-bit scabious *Succisa pratensis* including sand dunes, calcareous grassland, fens, raised and blanket bogs, upland heaths and grasslands. Neither devil's-bit scabious nor these habitats were recorded within the footprint of the Proposed Scheme.

### 5.4 Hydrology

112 The Proposed Scheme will be hydrologically connected to Dublin Bay via two watercourses: The River Poddle (Poddle_010) and the Grand Canal Main Line. The Proposed Scheme will also be hydrologically connected to the Liffey Estuary Upper via the River Poddle and the Liffey Estuary Lower via the Grand Canal and Ringsend WwTP.

113 Details on the water quality of each watercourse, as sourced from the Environmental Protection Agency (EPA), and the distances from the proposed crossing point to downstream waterbodies are also provided in Table 4.

***Table 4: 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 WFD Water Quality Status / Risk Score (2016-2021 period, where applicable) | Name of and Distance to Downstream Water Bodies along with their associated Water Quality |
|---|---|---|---|
| River Poddle | There are twelve crossing points of the River Poddle, the majority of which are in sections where the Poddle is culverted.<br><br>The River Poddle is above ground at Poddle Park, Mt Argus Park and Ravensdale Park. | Q3 (2007)<br>(The Priory, Kimmage Road)<br><br>Poor<br>*'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 the Harold's Cross Road R137. | Q-Value Score not applicable<br><br>Good Ecological Potential<br>'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<br><br>Good<br>'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 Ringsend Wastewater Treatment Plant. | Q-Value Score not applicable<br><br>Moderate<br>'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*"). |

### 5.5 Hydrogeology

114 The Geological Survey of Ireland (GSI) data indicates that the bedrock formation 1:500k in the Proposed Scheme is the Lucan formation "(Calp) Dark Limestone and shale - Carboniferous ", which is considered to be of low importance.

115 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.

116 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 (2016-2021) 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*".

117 The vulnerability of the Dublin groundwater body to human activities ranges from "Extreme" where bedrock is at or Near Surface to "Low" vulnerability in areas where thick subsoil deposit is present within the footprint of the Proposed Scheme.

### 5.6 Soils & Geology

118 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 map[12] 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 R137 New Street and R137 Patrick Street.

## 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects

119 Based on the baseline and receiving ecological environment and the nature and characteristics of the Proposed Scheme the following potential impacts have been identified:

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

120 Habitat degradation as a result of hydrogeological impacts and air quality impacts were scoped out from further assessment at the AA screening stage. The nearest European site is South Dublin Bay and River Tolka Estuary SPA which is located approximately 3.6km from the Proposed Scheme, and lies outside of the Zol for these impacts; therefore there is no potential for impact on European sites.

### *6.1 Habitat loss and fragmentation*

121 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.

122 Special Conservation Interest (SCI) species for which SPAs in the vicinity of the Proposed Scheme have been designated (i.e., wintering birds) are known to utilise *ex-situ* feeding sites in the Dublin area.

123 A single known *ex-situ* winter bird feeding site, Eamonn Ceannt Park, is located within 300m of the Proposed Scheme boundary along Sundrive Road. However, given existing busy nature of Sundrive Road, the minor works proposed along Sundrive Road (comprising retention of existing surfaces and cycleway tie in) and the existing screening present, in the form of an existing row of 2-storey houses and gardens along the eastern portion of Sundrive Road and an existing mature treeline within the perimeter of Eamonn Ceannt Park, effectively separating the Proposed Scheme from the *ex-situ* winter bird feeding site by approximately 100m. However, as there will be no direct habitat loss of any sites suitable to support

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

wintering 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.

124 As the Proposed Scheme alone 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.

The ZoI of this impact is potentially any habitat area within or traversed by the proposed development boundary that lies either within / immediately adjacent to those potential *ex-situ* sites supporting SCI listed bird species of 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. There are no European sites or *ex-situ* SCI feeding sites within or directly adjacent to the Proposed Scheme which would be subject to habitat loss or fragmentation.

### 6.2 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

125 The Proposed Scheme has the potential to result in habitat degradation / effects on QI / SCI species as a consequence of hydrological impacts during both the Construction and Operation Phases. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle (Poddle_010) which drains into the Liffey Estuary Upper, while the Grand Canal and Ringsend WwTP (via the network of interconnecting and established surface or combined sewer / surface water pipes), discharge to the Liffey Estuary Lower.

126 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. It should be noted that a highly substantial event / events would be required to generate such quantities, which is not deemed likely. Such a potential pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. This occurrence could happen at any time during the Construction Phase but could potentially be exacerbated by the removal of vegetation. 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).

127 The construction of the proposed Stone Boat Boardwalk across the River Poddle will involve bored piles into the vegetated bank set back from the River Poddle. The area will be accessed via Sundrive Carpark and Mount Argus View involving a piling rig and a crane for a period of 6 weeks. Widening of the Robert Emmet Bridge over the Grand Canal will involve bored piles into existing made ground set back from the canal. The area will be accessed from Gordons Fuels. In addition, construction at the Grand Canal requires works near an existing high voltage (220kV (kilovolt)) oil-filled underground cable. If damaged during works, oil could enter the Grand Canal. This has the potential to result in significant negative effects on water quality and consequently affect aquatic and wetland habitats in the receiving environment. In a worst-case albeit unlikely scenario, coastal habitats downstream, in Dublin Bay, could also be affected.

128 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, also has the potential to affect SCI bird species and QI mammal species that commute, forage and loaf in Dublin Port i.e. bird species 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 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 and QI marine mammal populations. These potential impacts could occur to such a degree that the conservation objectives of the 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, Rockabill to Dalkey Island SAC, Lambay Island SAC and Wicklow Mountains SPA are undermined.

129 As the Proposed Scheme has the potential to result in habitat degradation of the QI / SCI species of European sites as the result of hydrological impacts, there is also the potential for in combination effects to occur in association with the following activities / plans / projects.

The ZoI of this impact is any wetland, coastal or marine habitat downstream of any watercourse crossings or drainage outfalls, and any aquatic / marine species therein and includes North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, Rockabill to Dalkey Island SAC and Lambay Island SAC.

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

130 No non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within, or in close proximity to, the Proposed Scheme. However, there were records of invasive species in the vicinity of the Proposed Scheme returned from the desk study. Therefore, although unlikely, the potential for invasive species to spread or be introduced, during the Construction Phase and / or Operational Phase, to terrestrial habitat areas in European sites downstream in Dublin Bay cannot be ruled out (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.

131 It is not considered possible that invasive species could spread to European sites which are located a significant distance downstream of the Proposed Scheme at a number of outfall locations of the River Poddle, Grand Canal, Liffey Estuary Upper or Liffey Estuary Lower and separated by a large marine water body (i.e., Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Islands SPA).

132 As the Proposed Scheme has the potential to result in habitat degradation of the QI / SCI species of European sites as the result of the spread of invasive species, there is also the potential for in combination effects to occur in association with the following activities / plans / projects.

### 6.4 Disturbance and displacement impacts

The ZoI of this impact is potentially any habitats crossed by, immediately adjacent to, or downstream of the Proposed Scheme or along any of the proposed construction routes are at risk from contaminated soil / material and includes European sites associated with 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).

133 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction 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 150m[13]. For birds, disturbance effects would

[13] This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes (2006) and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes (2005))

not be expected to extend beyond a distance of approximately 300m[14], 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 ZoI of the Proposed Scheme.

134 With the exception of as single otter spraint recorded in July 2022 at the Grand Canal, no other signs of otter were recorded during field surveys of the Proposed Scheme. However, the Grand Canal and the River Poddle are known to support otter, an Annex II mammal species. The nearest SAC to the proposed development site for which otter has been designated is Wicklow Mountains SAC which is located approximately 8.1km south (as the crow flies). Although the River Poddle and Wicklow Mountains fall within the same WFD sub-catchment, Dodder_SC_010, there is no direct hydrological connection between the River Poddle and Wicklow Mountains SAC which is approximately 22km from the Proposed Scheme via the Liffey Estuary Upper and River Dodder.

135 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, while the potential pathway to Wicklow Mountains SAC is through the River Dodder and Liffey Estuary. The Proposed Scheme crosses the Grand Canal and the River Poddle both providing hydrological connectivity, however distances are >22km along existing hydrological pathways. With significant blockages along the Grand Canal, and the underground nature of the Poddle downstream of the Proposed Scheme, any populations of otter within the ZoI are not deemed to be SAC populations.

136 Marine mammals associated with European sites may commute and forage within the Liffey Estuary Lower, to which both the River Poddle and the Grand Canal discharge downstream of the Proposed Scheme, and Dublin Bay. It is not considered to be likely that there will be any impacts on these 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 the junction of New Street South / Kevin Street Upper in a highly urbanised environment. With the exception of the construction over the Grands Canal at Robert Emmet Bridge, the scale of upstream works proposed are considered to be minor.

137 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 3-5km of a river catchment[15]. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA which is located in a separate catchment approximately 39km away, therefore kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.

138 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, 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). These species include light-bellied Brent goose, black-tailed godwit. Lapwing, curlew, oystercatcher, blacked-headed gull, lesser black-backed gull and herring gull. Suitable inland foraging /

documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual ZoI of construction related disturbance likely to be much less in reality.

[14] 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 approximately 300m, typical noise levels associated with construction activity (BS 5228) are generally below 60dB or, in most cases, are approaching the 50dB threshold.

[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/

roosting sites, which these bird species utilise, are located within the potential ZoI of the Proposed Scheme, although, none are directly impacted by the Proposed Scheme (See Section 5.3.5). Therefore, there is potential for the Proposed Scheme to result in disturbance / displacement impacts on SCI populations associated with European sites.

139 As the Proposed Scheme has the potential to result in the disturbance / displacement of the QI / SCI species of any European site, there is also the potential for in combination effects to occur in association with the other activities / plans / projects.

The ZoI for disturbance associated with general construction activities for mammal species such as otter, is 150m, while for wintering birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m. There are no European sites within the disturbance ZoI of the Proposed Scheme. However, there is a single known *ex-situ* winter bird feeding area, Eamonn Ceannt Park (major importance) located approximately 60m from the Proposed Scheme boundary, therefore the Proposed Scheme has the potential to result in disturbance / displacement effects to SCIs of surrounding European sites which utilise *ex-situ* feeding areas (i.e., South Dublin Bay and River Tolka SPA, North Bull Island SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's eye SPA and the Murrough SPA.

### 6.5 Habitat degradation as a result of air quality impacts

140 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 (NOx, NOs), 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.

141 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.

142 As such, 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 or the Operational Phase of the Proposed Scheme. There is therefore no potential for in combination effects to occur in that regard.

The ZoI of this impact is 50m from the Proposed Scheme boundary and 500m from construction compounds during the Construction Phase for dust deposition and within 200m of the Proposed Scheme boundary during operation. There are no European sites present within this ZoI.

### 6.6 Summary

143 The potential impacts associated with the Proposed Scheme have the potential to affect the receiving environment and, as a result, the conservation objectives supporting the QIs / SCIs of the following European sites: North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, 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.

144 The potential impacts of the Proposed Scheme on the receiving environment, their ZoI, and the European sites at risk of likely significant effects are summarised in Table 5.

***Table 5: Summary of the Potential Impacts of the Proposed Scheme on the Receiving Environment, their Potential ZoI, and the European Sites within the ZoI***

| 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? |
|---|---|
| Habitat loss<br>Habitat loss will be confined to the lands within the Proposed Scheme boundary. | No.<br>There are no European sites or potential *ex-situ* wintering bird feeding sites within the Proposed Scheme boundary. |
| Habitat degradation / effects on QI / SCI species as a result of hydrological impacts<br>Habitats and species downstream of the Proposed Scheme and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants. | Yes.<br>There are European sites at risk of hydrological effects associated with the Proposed Scheme.<br>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, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA. |
| Habitat degradation as a result of introducing / spreading non-native invasive species<br>Habitat areas within, adjacent to, and potentially downstream of the Proposed Scheme. | Yes.<br>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.<br>North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA. |
| Disturbance and displacement impacts<br>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 SCI species to disturbance effects | Yes.<br>There are no European sites within the potential ZoI of disturbance effects associated with the construction or operation of the Proposed Scheme.<br>However, there are *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme:<br>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. |
| Air Quality impacts<br>Potentially up to 50m from the Proposed Scheme boundary and 500m from the Construction Compound at Construction phase, and up to 200m at Operation Phase. | No.<br>There are no European sites at risk of air quality effects associated with the Proposed Scheme. |

## 7 Assessment of Effects on European Sites

145 This section of the NIS assesses the direct and indirect impacts of the Proposed Scheme on the European sites which fall within its ZoI. For each of these European sites, the assessment below sets out the relevant ecological baseline information, the analysis of the potential impacts, the QIs / SCIs at risk of these potential

impacts, in view of the sites' conservation objectives, and the mitigation measures (if required) to avoid / reduce the effects of any potential impacts.

146 European sites have been grouped in the sub-sections below where the impact pathways, European sites' sensitivities, and potential effects are identical.

147 The assessment of the Proposed Scheme in combination with any other plans or projects on European sites is presented in Section 9.

## 7.1 North Dublin Bay SAC [000206] & South Dublin Bay SAC [000210]

### *7.1.1 Ecological Baseline Description for North Dublin Bay SAC & South Dublin Bay SAC*

North Dublin Bay SAC

148 The Natura 2000 Standard Data Form (NPWS, 2020a) lists the SAC as having an excellent diversity of coastal habitats. The dune system is one of the most important systems on the east coast, one of few in Ireland that is actively accreting. Saltmarsh habitat is well represented at the site with particularly good zonation evident. Of note is the occurrence of Petalwort *Petallophyllum ralfsii*, a QI, its only known location away from the western seaboard. Threats to the site include pollution from Dublin Port, commercial bait digging, recreational activities and water abstraction by golf clubs.

South Dublin Bay SAC

149 According to the Natura 2000 standard data form for South Dublin Bay SAC (NPWS, 2020b), the European site possesses a fine and fairly extensive example of intertidal flats, mudflats and sandflats not covered by seawater at low tide [1140]. Sediment type is predominantly sand, with muddy sands in the more sheltered areas and a typical macro-invertebrate fauna exists. The largest stand of Zostera on the east coast is located at Merrion Gates. The site supports internationally important numbers of wintering waterfowl, including light-bellied Brent geese which feed on Zostera. South Dublin Bay SAC also supports small areas of annual vegetation of drift lines [1210], *Salicornia* and other annuals colonising mud and sand [1310] and embryonic shifting dunes [2110]. Given Dublin Bay's proximity to a major population centre, recreational activities and disturbance on land and at sea is an existing pressure on habitats within the European site. Additional pressures and threats include reclamation of land, industrial or commercial areas e.g., Dublin Port, bait digging, marine water pollution, discharges and disposal of wastes, and accumulation of organic materials.

### *7.1.2 Qualifying Interests and Conservation Objectives of North Dublin Bay SAC & South Dublin Bay SAC*

150 The QIs of North Dublin Bay SAC and South Dublin Bay SAC, and the overall conservation objectives, are listed in Table 6.

***Table 6: QIs and Conservation Objectives of North Dublin Bay SAC & South Dublin Bay SAC***

| QIs | Conservation Objective(s) |
|---|---|
| **North Dublin Bay SAC [000206]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae)<br>1395 Petalwort *Petalophyllum ralfsii*<br>1410 Mediterranean salt meadows (*Juncetalia maritimi*)<br>2110 Embryonic shifting dunes<br>2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)<br>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*<br>2190 Humid dune slacks<br><br>*S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019*<br>NPWS (2013b) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected |
| **South Dublin Bay SAC [000210]**<br>1140 Mudflats and sandflats not covered by seawater at low tide<br>1210 Annual vegetation of drift lines<br>1310 *Salicornia* and other annuals colonising mud and sand<br>2110 Embryonic shifting dunes<br><br>*S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019*<br>NPWS (2013a) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected |

151 In conjunction with considering the generic conservation objective for these SACs "*To maintain or restore the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC has been selected*", the site-specific conservation objectives document for North Dublin Bay SAC and South Dublin Bay SAC also informed this assessment.

152 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the QIs within the European sites. Affecting the conservation condition of the QIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the QIs of North Dublin Bay SAC and South Dublin Bay SAC are presented in Section 7.1.3.3.

### *7.1.3 Examination and Analysis of Potential Direct and Indirect Impacts*

153 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the QIs of North Dublin Bay SAC and South Dublin Bay SAC, are:

- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts; and
- Habitat degradation as a result of introducing / spreading non-native invasive species.

#### 7.1.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

154 The 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. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and/or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition, the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WwTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC and South Dublin Bay SAC as a result of hydrological impacts.

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

155 No non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within, or in close proximity to, the Proposed Scheme. However, there were records of invasive species in the vicinity of the Proposed Scheme returned from the desk study. During construction and / or routine maintenance / management work, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Poddle, the Grand Canal and the Liffey Estuary Upper, all of which flow into Dublin Bay. Therefore, there is potential, albeit unlikely, for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Dublin Bay SAC and South Dublin Bay SAC as a result of invasive species spread.

#### 7.1.3.3 Summary

156 Table 7 presents a summary of the potential impacts of the Proposed Scheme on the QIs of North Dublin Bay SAC and South Dublin Bay SAC, and how these impacts relate to affecting the sites' conservation objectives.

*Table 7: Potential Impacts / Effects on the Conservation Objectives of North Dublin Bay SAC and South Dublin Bay SAC*

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **North Dublin Bay SAC** | | | |
| **Mudflats and sandflats not covered by water at low tide [1140]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could affect the quality of the intertidal habitats and the fauna communities they support.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Community extent / Hectares / Maintain the extent of the *Mytilus edulis*-dominated community, subject to natural processes | | | |
| Community structure: *Mytilus edulis* density / Individuals/$m^2$ / Conserve the high quality of the *Mytilus edulis* dominated community, subject to natural processes | | | |
| Community distribution / Hectares / Conserve the following community types in a natural condition: Fine sand to sandy mud with *Pygospio elegans* and *Crangon crangon* community complex; Fine sand with *Spio martinensis* community complex | | | |
| **Annual Vegetation of drift lines [1210]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality and sediment supply / Presence/ absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover | | | |
| ***Salicornia* and other annuals colonising mud and sand [1310]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence/ absence of physical barriers<br>Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and subcommunities / Percentage cover / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Mediterranean salt meadows (Juncetalia maritimi*)* [1410]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2<br>will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Embryonic shifting dunes [2110]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession. | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes. | | | |
| Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: plant health of foredune grasses / Percentage cover / More than 95% of sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e., green plant parts above ground and flowering heads present) | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: plant health of dune grasses / Percentage cover / 95% of marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e., green plant parts above ground and flowering heads present) | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and/or lymegrass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| **Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]***<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes | | | |
| Vegetation structure: sward height / Centimetres / Maintain structural variation in the sward | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain range of sub-communities with typical species listed in Delaney *et al*. (2013) | | | |
| Vegetation composition: negative indicator species (including *Hippophae rhamnoides*) / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| Vegetation composition: scrub/trees / Percentage cover / No more than 5% cover or under control | | | |
| **Humid dune slacks [2190]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: hydrological and flooding regime / Water table levels; groundwater fluctuations (metres) / Maintain natural hydrological regime | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | composition, diversity and abundance and the physical structural integrity of the habitat. | | |
| Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground | | | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within the sward | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain range of sub-communities with typical species listed in Delaney *et al*., (2013) | | | |
| Vegetation composition: cover of *Salix repens* / Percentage cover; centimetres / Maintain less than 40% cover of creeping willow (*Salix repens*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover | | | |
| Vegetation composition: scrub/trees / Percentage cover / No more than 5% cover or under control | | | |
| **Petalwort *Petalophyllum ralfsii* [1395]**<br>To maintain the favourable conservation condition of the species in the SAC, which is defined as follows: | | | |
| Distribution of populations / Number and geographical spread of populations / No decline | Yes<br>As a terrestrial flora species of damp calcareous dune slacks, found above the high tide line, it is not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Population size / Number of individuals / No decline | | | |
| Area of suitable habitat / Hectares / No decline | | | |
| Hydrological conditions: soil moisture / Occurrence / Maintain hydrological conditions so that substrate is kept moist and damp throughout the year, but not subject to prolonged inundation by flooding in winter | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: height and cover / Centimetres and percentage / Maintain open, low vegetation with a high percentage of bryophytes (small acrocarps and liverwort turf) and bare ground | seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | | |
| **South Dublin Bay SAC** | | | |
| **Mudflats and sandflats not covered by water at low tide [1140]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Community extent / Hectares / Maintain the extent of the *Zostera* dominated community, subject to natural processes | | | |
| Community structure: *Mytilus edulis* density / Individuals/$m^2$ / Conserve the high quality of the *Zostera* dominated community, subject to natural processes | | | |
| Community distribution / Hectares / Conserve the following community type in a natural condition: Fine sands with *Angulus tenuis* community complex | | | |
| **Annual Vegetation of drift lines [1210]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Physical structure: functionality and sediment supply / Presence/ absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions | magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover. | | | |
| ***Salicornia* and other annuals colonising mud and sand [1310]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes | | | |
| Physical structure: sediment supply / Presence/ absence of physical barriers. Maintain, or where necessary restore, natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession | | | |
| Physical structure: flooding regime / Hectares flooded; frequency / Maintain natural tidal regime | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | during construction and operation of the Proposed Scheme. | |
| Vegetation structure: vegetation height / Centimetres / Maintain structural variation within sward | | | |
| Vegetation structure: vegetation cover / Percentage cover at a representative number of monitoring stops / Maintain more than 90% of area outside creeks vegetated | | | |
| Vegetation composition: typical species and subcommunities / Percentage cover / Maintain the presence of species-poor communities listed in SMP (McCorry and Ryle, 2009) | | | |
| Vegetation structure: negative indicator species - *Spartina anglica* / Hectares / No significant expansion of common cordgrass (*Spartina anglica*), with an annual spread of less than 1% | | | |
| **Embryonic shifting dunes [2110]**<br>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession. | Yes<br>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. | Yes<br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes. | | | |
| Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions | | | |
| Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation composition: plant health of foredune grasses / Percentage cover / More than 95% of sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e., green plant parts above ground and flowering heads present) | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) | | | |
| Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover. | | | |

### *7.1.4 Mitigation Measures*

157 This section presents the mitigation measures that will be implemented during construction and operation to avoid or reduce the potential impacts of the Proposed Scheme on North Dublin Bay SAC and South Dublin Bay SAC. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment. Mitigation measures and associated Management Plans are included within the Construction Environmental Management Plan (CEMP) provided in Appendix III, all of which shall, at a minimum, be implemented during the construction phase of the Proposed Scheme.

158 The CEMP summarises the overall environmental management strategy that will be adopted and implemented during the Construction Phase of the Proposed Scheme. The purpose of the CEMP is to demonstrate how the proposed construction works can be delivered in a logical, sensible and safe sequence with the incorporation of specific environmental control measures relevant to construction works of this nature. The CEMP sets out the mechanism by which environmental protection is to be achieved during the Construction Phase of the Proposed Scheme. The CEMP has been prepared in accordance with the following industry best practice guidance:

- TII's Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan (TII 2007); and
- Construction Industry Research and Information Association (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition (CIRIA 2015).

159 The CEMP has been prepared in conjunction with the Environmental Impact Assessment Report (EIAR) and this NIS with input from members of the BusConnects Infrastructure team. The CEMP supports the information already provided in the EIAR and the NIS and must be read in conjunction with the information already provided in the NIS (Appendix III of this NIS). The details relevant to European sites are already provided in the NIS.

160 The information included in the CEMP is presented under the following topics:

- Proposed Scheme Details;
- Planning Consent;
- Contact Sheets;
- Roles and Responsibilities;
- Communication;
- Environmental Awareness Training;
- Compliance and Review;
- Environmental Commitments; and,
- Site Specific Method Statements / Management Plans.
    - Construction Traffic Management Plan;
    - Invasive Species Management Plan (ISMP);
    - Surface Water Management Plan (SWMP);
    - Construction and Demolition Resource and Waste Management Plan; and
    - Environmental Incident Response Plan.

161 The CEMP has been prepared and is included as Appendix III of this NIS. The CEMP will be updated by the NTA prior to the commencement of the Construction Phase, so as to include any additional measures required pursuant to conditions attached to any decision to grant approval. The CEMP has regard to the guidance contained in the TII Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan, and the handbook published by Construction Industry Research and Information Association (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition.

162 A number of sub-plans have also been prepared as part of the CEMP, including a SWMP and an ISMP, as outlined above. For the avoidance of doubt, all of the measures set out in the CEMP and the sub-plans appended to this NIS will be implemented in full by the appointed contractor to the satisfaction of the NTA.

#### 7.1.4.1 Measures to Protect Surface Water Quality

163 This section presents the mitigation measures that will be implemented during Construction and Operation Phases to avoid the potential impacts of the Proposed Scheme on downstream European sites. All of the mitigation measures will be implemented in full. They are in accordance with best practice, and tried and tested, effective control measures to protect the receiving environment.

164 A CEMP including a SWMP and ISMP have been submitted with the application documentation to An Bord Pleanála (see Appendix III of this NIS).

165 These measures have been developed in consideration of the following standard best international practice including but not limited to:

- (CIRIA) (2015) Construction Industry Research and Information Association Environmental Good Practice on Site (C741);
- CIRIA, (2001) Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532);
- CIRIA, (2000) Environmental Handbook for Building and Civil Engineering Projects (C512);
- CIRIA, (2007) The SUDS Manual (C697);
- CIRIA C648 (2006) Control of water pollution from linear construction projects: Technical guidance;
- CIRIA (2006) Control of water pollution from linear construction projects: Site guide (C648);
- IFI (2016) Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters;
- UK Pollution Prevention Guidelines (PPG) UK Environment Agency, 2004; and,
- BPGCS005, Oil Storage Guidelines, Enterprise Ireland.

*Measures to Protect Surface Water Quality during Construction*

166 The following specific mitigation measures, all of which are set out in the CEMP, shall be implemented to mitigate against the release of hydrocarbons, polluting chemicals, sediment / silt and contaminated waters control:

- Specific measures to prevent the release of sediment over baseline conditions in the downstream receiving water environment, during the construction work. These measures include, but are not limited to, the use of construction of cut-off ditches, berms or diversion channels and silt fences will be installed / erected and the set-up of catch pit or silt traps.;
- Provision of exclusion zones and barriers (e.g., silt fences) between earthworks, stockpiles and temporary surfaces to prevent sediment washing into the existing drainage systems and hence the downstream receiving water environment;
- Provision of temporary construction surface drainage and sediment control measures to be in place before earthworks commence;
- In respect of Construction Compounds, all surface water runoff will be intercepted and directed to appropriate treatment systems / settlement facilities for the removal of pollutants prior to discharge;
- Weather conditions will be taken into account by the appointed contractor when planning construction activities to minimise risk of silty water runoff from the site;
- Prevailing weather and environmental conditions will be taken into account prior to the pouring of cementitious materials for the works adjacent to any surface water drainage features, or drainage features connected to same. Pumped concrete will be monitored to

ensure no accidental discharge. Mixer washings and excess concrete will not be discharged to existing surface water drainage systems. Concrete washout areas will be located remote from any surface water drainage features, to avoid accidental discharge to watercourses. Concrete trucks will not be washed out on site;

- Any fuels or chemicals (including hydrocarbons or any polluting chemicals) will be stored in a designated, secure bunded area(s) within the construction compound to prevent any seepage of potential pollutants into the local surface water network. These designated areas will be clearly sign-posted and all personnel on site will be made aware of their locations and associated risks;
- All mobile fuel bowsers shall carry a spill kit and operatives must have spill response training. All fuel containing equipment such as portable generators shall be placed on drip trays. All fuels and chemicals required to be stored on-site will be clearly marked. Care and attention will be taken during refuelling and maintenance operations. Particular attention will be paid to gradient and ground conditions, which could increase risk of discharge to waters;
- A register of all hazardous substances, which will either be used on site or expected to be present (in the form of soil and/or groundwater contamination) will be established and maintained. This register will be available at all times and shall include as a minimum:
    - Valid Safety Data Sheets (MSDS);
    - Health & Safety, Environmental controls to be implemented when storing, handling, using and in the event of spillage of materials;
    - Emergency response procedures/precautions for each material; and.
    - The Personal Protective Equipment (PPE) required when using the material.
- Implementation of response measures to potential pollution incidents:
    - An Environmental Incident Response Plan has been included within the CEMP and will be finalised prior to works commencing and will be communicated, resourced and implemented for the duration of the works. The EIRP describes the procedures, lines of authority and processes that will be followed to ensure that incident response efforts are prompt, efficient, and suitable for particular circumstances. The EIRP details the procedures to be undertaken in the event of the release of any sediment into a watercourse, serious spillage of chemical, fuel or other hazardous wastes (e.g., concrete), non-compliance incident with any permit or license, or other such risks that could lead to a pollution incident, including flood risks; and
    - Emergency procedures / precautions and spillage kits will be available and construction staff will be trained and experienced in emergency procedures in the event of accidental fuel spillages. Details of these are included in Section 5.6 of the CEMP, in Appendix III of this NIS.
- All trucks will have a built-on tarpaulin that will cover excavated material as it is being hauled off-site and wheel wash facilities (and any other necessary measures to remove mud and organic material from vehicles will be provided at Construction Compounds.
- Any dewatering in areas of contaminated ground shall be designed by the appointed contractor to minimise the mobilisation of contaminants into the surrounding environment;
- The removal of any made ground material, which may be contaminated, from the construction site and transportation to an appropriate licenced facility shall be carried out in accordance with the Waste Management Act, best practice and guidelines for same;
- A discovery procedure for contaminated material will be prepared and adopted by the appointed contractor prior to excavation works commencing on site. These documents will detail how potentially contaminated material will be dealt with during the excavation phase;
- Implementation of measures to minimise waste and ensure correct handling, storage and disposal of waste (most notably wet concrete, pile arisings and asphalt); and,

- The appointed contractor shall carry out visual monitoring of surface water control measures (settlement tanks, silt fences, fuel storage areas etc.) on a daily basis. In addition, weekly visual inspections of all of the water bodies crossed by the Proposed Scheme will be carried out by the appointed contractor.

*Site-Specific Surface Water Mitigation Measures*

167 Following implementation of the mitigation measures outlined above, the majority of impacts will be not significant. There are two areas, however that require additional specific mitigation measures to ensure that impacts are not significant. Following implementation of specific mitigation measures outlined in this NIS and the Surface Water Management Plan (SWMP) (See Appendix III of this NIS), the majority of Impacts will not be significant. These areas are:

- Construction of the new Stone Boat Boardwalk over Poddle_010 at Mount Argus Way Structure Reference 02);
- Cycle / Pedestrian Bridge to the West of the Robert Emmet Bridge (Structure Reference: 01A) over Grand Canal; and
- Pedestrian Bridge to East of Robert Emmet Bridge (Structure Reference: 01B) over the Grand Canal.

168 Therefore, the following mitigation measures have been identified and will be applied to minimise and avoid these impacts:

- All necessary consents will be obtained from the relevant regulator (such as IFI, OPW or the local authority), as appropriate;
- Bank stabilisation and erosion protection, if required, will be designed in consultation with the IFI and NPWS;
- The area of disturbance of the bank will be the absolute minimum required;
- Works within and adjacent to watercourses will be conducted during forecast low flow periods (for Poddle_010), where possible;
- Operation of machinery in-stream will not be permitted. All construction machinery operating near to the water body will be mechanically sound to avoid leaks of oils, hydraulic fluid, etc.;
- A suitable bund will be installed by the appointed contractor along the bank downhill of any piling in the banks (Poddle_010 and Grand Canal), for example, silt fence, sandbags or straw bales to direct silty water runoff away from the water body. Any silty water will be collected and treated through the use of a silt-buster tank or similar, to be decided upon by the appointed contractor;
- Any dewatering flows will be directed to the construction drainage system and to the settlement pond (or other) treatment system;
- Reinstatement of any banks affected during construction works near a watercourse will be reinstated back to pre-development conditions; and
- Any bank-side clearance in the immediate area of a crossing / works will be kept to a minimum and adequate measures will be put in place to control or minimise the risk of siltation. This may include such measures as:
    - Bunding and diversion of site runoff to settlement ponds / tanks;
    - Stripping of topsoil will be in accordance with the soils requirements outlined in A Guide to Landscape Treatments for National Road Schemes in Ireland (NRA 2005), and where necessary, the site will be surfaced with granular material; and
    - Covering of temporary stockpiles.

169 In addition to this, specific measures will need to be put in place to prevent the mobilisation of pollutants in potentially contaminated ground from reaching the Grand Canal. The appointed contractor in consultation with the NTA will engage with ESB Networks to locate their oil-filled cable in the context of

the Proposed Scheme. A ground investigation, where construction works are to take place near to the ESB oil-filled cable, will be carried out prior to construction commencing and following this, an appropriate suite of mitigation measures will be confirmed and deployed, which could for example result in the removal of all contaminated material from site.

*Measures to Protect Surface Water Quality during Operation*

170 Mitigation for the operational phase has been built into the design of the Proposed Scheme. The overall net increase in impermeable area for the road corridor will be 913m$^2$. This increase in impermeable area will be managed for the Proposed Scheme through a combination of permeable paving and attenuation / oversized pipes as well as pollution control measures as required in accordance with DMRB and CIRIA design standards. Where no new paved areas are proposed, the existing drainage network will be retained and utilised (See Appendix II for Proposed Surface Water Drainage Works).

171 These measures will ensure that there is no increase in existing runoff rates from newly paved areas and appropriate treatment to ensure runoff quality.

172 The range of measures including SuDS systems installed during the Construction Phase will reduce both the volume and rate of surface waters discharging into the existing surface water drainage network, as well as improving the environmental quality of any such discharges during the Operational Phase of the Proposed Scheme.

173 These standard drainage design controls have been proven through widespread use in developments across the country. The proposed SuDS drainage system incorporated into the design of the site are common drainage systems that are used in most development types. They are proposed and designed in accordance with the Greater Dublin Strategic Drainage Study (DDS 2005). In the Operational Phase, the infrastructure (including the maintenance regime for SuDS and monitoring of waterbodies) will be carried out by the relevant local authority and will be subject to their management procedures. No additional mitigation is required.

#### 7.1.4.2 Measures to Prevent the Spread of Invasive Species to Downstream European Sites During Construction

*Confirmatory Pre-construction survey*

174 The NTA will ensure that a confirmatory pre-construction invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence and/or extent of all Third Schedule invasive species within the footprint of the Proposed Scheme. Where an infestation is confirmed / identified within the footprint of the Proposed Scheme, this will require the implementation of a Non-Native Invasive Species Management Plan (refer to the CEMP in Appendix III of this NIS).

*Non-native Invasive Species Management Plan (ISMP)*

175 Where a pre-construction invasive species survey has confirmed the presence of previously identified Third Schedule non-native invasive species, or identifies newly established non-native invasive species within the footprint of the Proposed Scheme, the ISMP produced will provide a detailed description of the infestations (e.g., approximate area of the respective colonies (m$^2$), where feasible; approximate total number of stems, pattern of growth and information on other vegetation present), and where necessary, include calculations of volumes of infested soils to be excavated.

176 The ISMP for the Proposed Scheme will be implemented, including the detailed control measures contained within it, as advised by a suitably qualified specialist, in accordance with the Transport Infrastructure Ireland's (2020) The Management of Invasive Alien Plant Species on National Roads - Technical Guidance) (2020a) and The Management of Invasive Alien Plant Species on National Roads – Standard (2020b), and other species-specific guidance documents including those listed in the non-native ISMP, as necessary.

177 The NTA will ensure that all control measures specified in the Proposed Scheme non-native ISMP shall be implemented by a suitably qualified and licenced specialist prior to the construction of the Proposed Scheme to control the spread of newly established non-native invasive species within the footprint of the

Proposed Scheme. Furthermore, the appointed contractor will adhere to control measures specified within the Non-Native ISMP throughout the Construction Phase of the Proposed Scheme

178 The site will be monitored by the appointed contractor in consultation with the suitably qualified and licensed specialist after the control measures have been implemented. Any re-growth will be subsequently treated as detailed in the Proposed Scheme ISMP. The ISMP is contained within Appendix III to the NIS.

*Measures to Prevent the Spread of Non-Native Invasive Species to Downstream European Sites During Operation*

179 Once the Proposed Scheme is in operation, the control of invasive species will be subject to local authorities management procedures. No additional mitigation is required.

#### *7.1.5 Residual Impacts*

180 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the QI habitats of North Dublin Bay SAC and South Dublin Bay SAC, and there are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of North Dublin Bay SAC and South Dublin Bay SAC. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

#### *7.1.6 Conclusion of Assessment for North Dublin Bay SAC and South Dublin Bay SAC*

181 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the QIs of North Dublin Bay SAC and South Dublin Bay SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the QIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of North Dublin Bay SAC and South Dublin Bay SAC.

### 7.2 Rockabill to Dalkey Island SAC [003000], and Lambay Island SAC [000204].

#### *7.2.1 Ecological Baseline Description for Rockabill to Dalkey Island SAC*

182 According to the Natura 2000 Standard Data Form (NPWS, 2020d), this SAC is a marine site that is a rectangle shaped area extending from Rockabill south to Dalkey Island in south Dublin. The SAC has been selected for the Annex I habitat: [1170] Reefs. The only species listed as a QI for the Rockabill to Dalkey Island SAC is the Harbour porpoise *Phocoena phocoena* [1351]. Surveys of the site estimated that there are 211±47 Harbour porpoises in the northern part of the site and 138±33 in the southern part (Berrow *et al*., 2010). Calves and juveniles have been recorded across the SAC, which suggests the site has value in the reproductive cycle of the species.

#### *7.2.2 Ecological Baseline Description for Lambay Island SAC*

183 According to the Natura 2000 Standard Data Form (NPWS, 2019c), this SAC is Ireland's largest east coast island, lying 4km off Dublin. The island is surrounded by steep cliffs on the north, east and south sides which hold internationally important populations of seabirds. Most of the western third of the island is intensively farmed, while the rest is a mixture of less intensively grazed land, rock outcrops, scrub and bracken. Lambay Island is surrounded by intertidal and subtidal reef habitat. This site provides year-round haul-out habitat for the Annex II seal species grey seal *Halichoerus grypus* and harbour seal *Phoca vitulina*, and includes regionally significant breeding and moulting sites.

### *7.2.3 Qualifying Interests and Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC.*

184 The QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC, and the overall conservation objectives, are listed in Table 8.Table 9

***Table 8: QIs and Conservation Objectives of Howth Head SAC and Rockabill to Dalkey Island SAC, Lambay Island SAC and Ireland's Eye SAC***

| QI(s) | Conservation Objective(s) |
|---|---|
| **Howth Head SAC [000202]**<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>4030 European dry heaths<br><br>*S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021*<br>NPWS (2016) *Conservation Objectives: Howth Head SAC 000202.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. | To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected |
| **Rockabill to Dalkey Island SAC [003000]**<br>1170 Reefs<br>1351 Harbour porpoise *Phocoena phocaena*<br><br>*S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019*<br>NPWS (2013e) *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected |
| **Lambay Island SAC [000204]**<br>1170 Reefs<br>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts<br>1364 Grey seal *Halichoerus grypus*<br>1365 Harbour seal *Phoca vitulina*<br><br>*S.I. No. 294/2019 - European Union Habitats (Lambay Island Special Area Of Conservation 000204) Regulations 2019*<br>NPWS (2013) *Conservation Objectives: Lambay Island SAC 000204.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected |

185 In conjunction with considering the generic conservation objective for these SACs "To maintain the favourable conservation condition of the Annex I habitat(s) and / or the Annex II species for which the SAC(s) has been selected", the site-specific conservation objectives documents for Rockabill to Dalkey Island SAC and Lambay Island SAC also informed this assessment.

186 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the QIs within the European site. Affecting the conservation condition of the QIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC are presented in Section 7.2.4.2.

### *7.2.4 Examination and Analysis of Potential Direct and Indirect Impacts*

187 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC, are:

- Habitat degradation as a result of hydrological impacts.

#### 7.2.4.1 Habitat degradation as a result of hydrological impacts

188 The 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. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and/or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition, the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects Rockabill to Dalkey Island SAC and Lambay Island SAC Dublin Bay SAC and South Dublin Bay SAC as a result of hydrological impacts.

189 In a potential worst-case scenario, the 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 the QI marine mammal species that commute and forage in Dublin Bay i.e., 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 downstream (e.g., reefs [1170]), which in turn could negatively affect the QI marine mammal species that rely upon these habitats for foraging purposes. It could also negatively affect the quantity and quality of prey available to populations of QI marine mammals. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC as a result of hydrological impacts.

#### 7.2.4.2 Summary

190 Table 9 presents a summary of the potential impacts of the Proposed Scheme on the QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC, and how these impacts relate to affecting the sites' conservation objectives.

*Table 9: Potential Impacts / Effects on the Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC*

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are Mitigation Measures Required?** | **Residual Impacts?** |
|---|---|---|---|
| **Rockabill to Dalkey Island SAC** | | | |
| **Reefs [1170]**<br>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Habitat distribution/ Occurrence/ Distribution is stable or increasing, subject to natural processes | | | |
| Community structure/ Biological composition/ Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex | | | |
| **Harbour porpoise *Phocoena phocoena* [1351]**<br>To maintain the favourable conservation condition of Harbour porpoise in Rockabill to Dalkey Island SAC, which is defined as follows: | | | |
| Access to suitable habitat/ Number of artificial barriers/ Species range within the site should not be restricted by artificial barriers to site use | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal / marine habitats which support harbour porpoise and fish prey species. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Disturbance/ Level of impact/ Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site | | | |
| **Lambay Island SAC** | | | |
| **Reefs [1170]** | | | |

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are Mitigation Measures Required?** | **Residual Impacts?** |
|---|---|---|---|
| To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent habitat area is stable or increasing, subject to natural processes | No<br>There is no potential for impacts to occur on any habitats associated with the Lambay Island SAC as it is located a significant distance from the Proposed Scheme, and on the far side of the Howth peninsula, separated by a large marine water body. | No | No |
| Habitat distribution/ Occurrence/ Distribution is stable or increasing, subject to natural processes | | | |
| Community structure/ Biological composition/ Conserve the following community types in a natural condition: Intertidal reef community complex; *Laminaria*-dominated community complex | | | |
| **Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]**<br>To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in Lambay Island SAC, which is defined as follows: | | | |
| Habitat length Kilometres Area stable, subject to natural processes, including erosion | No<br>There is no potential for impacts to occur on any habitats associated with the Lambay Island SAC as it is located a significant distance from the Proposed Scheme, and on the far side of the Howth peninsula, separated by a large marine water body. | No | No |
| Habitat distribution/ Occurrence/ No decline, subject to natural processes | | | |
| Physical structure: functionality and hydrological regime/ Occurrence of artificial barriers/ No alteration to natural functioning of geomorphological and hydrological processes due to artificial structures | | | |
| Vegetation structure: zonation/ Occurrence/ Maintain range of sea cliff habitat zonations including transitional zones, subject to natural processes including erosion and succession | | | |
| Vegetation structure: vegetation height/ Centimetres/ Maintain structural variation within sward | | | |
| Vegetation composition: typical species and subcommunities/ Percentage cover at a representative sample of monitoring stops/ Maintain range of subcommunities with typical species listed in the Irish Sea Cliff Survey | | | |
| Vegetation composition: negative indicator species/ Percentage/ Negative indicator species (including non-natives) to represent less than 5% cover | | | |
| Vegetation composition: bracken and woody species/ Percentage Cover of bracken (Pteridium aquilinum) on grassland and/or heath less than 10%/ Cover of woody species on grassland and/or heath less than 20% | | | |
| **Grey Seal *Halichoerus grypus* [1364]** | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| To maintain the favourable conservation condition of Grey Seal in Lambay Island SAC, which is defined as follows: | | | |
| Access to suitable habitat/ Number of artificial barriers/ Species range within the site should not be restricted by artificial barriers to site use | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal / marine habitats which support grey seal. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Breeding behaviour/ Breeding sites /The breeding sites should be maintained in a natural condition | | | |
| Moulting behaviour/ Moult haul-out sites/ The moult haul-out sites should be maintained in a natural condition | | | |
| Resting behaviour/ Resting haul-out sites/ The resting haul-out sites should be maintained in a natural condition | | | |
| Disturbance/ Level of impact/ Human activities should occur at levels that do not adversely affect the grey seal population at the site | | | |
| **Harbour Seal *Phoca vitulina* [1365]**<br>To maintain the favourable conservation condition of Harbour Seal in Lambay Island SAC, which is defined as follows: | | | |
| Access to suitable habitat /Number of artificial barriers Species range within the site should not be restricted by artificial barriers to site use | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal / marine habitats which support harbour seal. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Breeding behaviour /Breeding sites /The breeding sites should be maintained in a natural condition | | | |
| Moulting behaviour / Moult haul-out sites/ The moult haul-out sites should be maintained in a natural condition | | | |
| Resting behaviour /Resting haul-out sites /The resting haul-out sites should be maintained in a natural condition | | | |
| Disturbance/ Level of impact /Human activities should occur at levels that do not adversely affect the harbour seal population at the site | | | |

### *7.2.5 Mitigation Measures*

191 This section presents the mitigation measures that will be implemented during construction and operation to avoid or reduce the potential impacts of the Proposed Scheme on Rockabill to Dalkey Island SAC and Lambay Island SAC. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

192 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

193 The mitigation measures presented above Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

### *7.2.6 Residual Impacts*

194 With the effective implementation of appropriate mitigation identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Rockabill to Dalkey Island SAC and Lambay Island SAC. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.2.7 Conclusion of Assessment for Rockabill to Dalkey Island SAC and Lambay Island SAC*

195 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the QIs of Rockabill to Dalkey Island SAC and Lambay Island SAC, the potential impacts and mitigation measures and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the QIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Rockabill to Dalkey Island SAC and Lambay Island SAC.

## 7.3 Howth Head Coast SPA [004113], Dalkey Islands SPA [004172] and Rockabill SPA [004014]

### *7.3.1 Ecological Baseline Description for Howth Head Coast SPA*

196 The Natura 2000 Standard Data Form (NPWS, 2020e) lists the SPA as a rocky headland on the northern side of Dublin Bay. The site comprises approximately 3km of sea cliff, varying between 60m and 90m in height. Howth Head SPA is of importance to breeding seabirds. This SPA is designated for its population of breeding kittiwake *Rissa tridactyla*. There are also nationally important populations of breeding razorbill *Alca torda* and black guillemot *Cepphus grylle*, and a regionally important population of common guillemot *Uria aalge*. The cliffs also support a breeding pair of peregrine falcon *Falco peregrinus*, a species listed on Annex I of the E.U. Birds Directive. Threats to the site include walking, horse-riding and non-motorised vehicles as well as fire and fire suppression.

### *7.3.2 Ecological Baseline Description for Dalkey Islands SPA*

197 The Natura 2000 Standard Data Form (NPWS, 2020f) lists the site as an important site for both breeding and staging terns. This SPA is designated for breeding terns and there is a well-established colony of common tern *Sterna hirundo* and smaller numbers of Arctic tern *Sterna paradisaea* and roseate tern *Sterna dougallii*. The site along with other parts of south Dublin Bay are used by the three tern species as a major post-breeding/pre-migration autumn roost area. The site also has breeding great black-backed gull *Larus*

*marinus*, shelduck *Tadorna tadorna* and oystercatcher *Haematopus ostralegus*. The site is known to be frequented in winter by significant numbers of turnstone *Arenaria interpres* and purple sandpiper *Calidris maritima*. Threats to the site include urbanisation and human habitation, human intrusions and disturbances, and agriculture.

### *7.3.3 Ecological Baseline Description for Rockabill SPA*

198 The Natura 2000 Standard Data Form (NPWS, 2020g) lists the site as an internationally tern colony. It supports the largest population of roseate tern *Sterna dougallii* in north-west Europe and the largest colony of *Sterna hirundo* in the country, as well as a significant colony of Arctic tern *Sterna paradisaea*. With management for the benefit of terns, numbers of all three species have been steadily increasing since 1989. Rockabill also supports a nationally important population of black guillemot *Cepphus grille* and a small colony of kittiwake *Rissa tridactyla*.

### *7.3.4 Special Conservation Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA*

199 The SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and the overall conservation objective, are listed in Table 10.

***Table 10: SCIs and Conservation Objectives of Howth Head Coast SPA and Dalkey Islands SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Howth Head Coast SPA [004113]**<br>A188 Kittiwake *Rissa tridactyla*<br><br>*S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.*<br>NPWS (2022c) *Conservation objectives for Howth Head Coast SPA [004113].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA. |
| **Dalkey Islands SPA [004172]**<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010*<br>NPWS (2022b) *Conservation objectives for Dalkey Islands SPA [004172*]. First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA. |
| **Rockabill SPA [004014]**<br>A148 Purple Sandpiper *Calidris maritima*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br><br>*S.I. No. 94/2012 - European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004014)) Regulations 2012.*<br>NPWS (2013j) *Conservation Objectives: Rockabill SPA 004014.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA. |

200 In conjunction with considering the generic conservation objective for these SPAs "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for several European sites designated for similar SCI bird species to that of Rockabill SPA also informed this assessment. These European sites are identified in Table 10.

201 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the QIs within the European site. Affecting the conservation condition of the SCIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA are presented in Section 7.3.5.2.

### *7.3.5 Examination and Analysis of Potential Direct and Indirect Impacts*

202 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, are:

- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts.

#### 7.3.5.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

203 The 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. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA as a result of hydrological impacts.

204 Therefore, (albeit unlikely) 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 Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA.

#### 7.3.5.2 Summary

205 Table 11 presents a summary of the potential impacts and effects of the Proposed Scheme on the SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and how these impacts relate to affecting the site's conservation objectives.

*Table 11: Potential Impacts / Effects on the Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA*

| Conservation Objectives<br>Attribute/Measure/Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Howth Head Coast SPA** | | | |
| **Kittiwake [A188]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for kittiwake in the Saltee Islands SPA [004002] (NPWS, 2011) | | | |
| Breeding population abundance: apparently occupied nests (AONs)/ Number/ No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate/ Mean number/ No significant decline | | | |
| Distribution: breeding colonies/ Number; location; area (hectares)/ No significant decline | | | |
| Prey biomass available/ Kilogrammes/ No significant decline | | | |
| Barriers to connectivity/ Number; location; shape; area (hectares)/ No significant increase | | | |
| Disturbance at the breeding site/ Level of impact/ No significant increase | | | |
| **Dalkey Islands SPA** | | | |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for roseate tern in the South Dublin Bay and River Tolka Estuary SPA [004024].: | | | |
| Passage population: individuals / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns | | | |

| Conservation Objectives<br>Attribute/Measure/Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Common Tern (*Sterna hirundo*) [A193]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for common tern in the South Dublin Bay and River Tolka Estuary SPA [004024]. | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Passage population: individuals / Number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline | | | |
| Distribution: roosting areas / Number; location; area (Hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of common tern among the post-breeding aggregation of terns | | | |
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for arctic tern in the South Dublin Bay and River Tolka Estuary SPA [004024]. | | | |
| Passage population / Number of individuals / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality | No |
| Distribution: roosting areas / Number; location; area (hectares) / No significant decline | | | |

| Conservation Objectives<br>Attribute/Measure/Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| Prey biomass available / Kilogrammes / No significant decline | Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality and suitability of roosting sites within the SPA. | in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns | | | |
| **Rockabill SPA** | | | |
| **Purple Sandpiper (*Calidris maritima*) [A148]**<br>To maintain the favourable conservation condition of Purple Sandpiper in Rockabill SPA, which is defined as follows: | | | |
| Population trend/ Percentage change/ Long term population trend stable or increasing | No<br>There is no pathway for impacts to occur on this SCI species as it is located a significant distance from the Proposed Scheme, and on the far side of the Howth peninsula, separated by a large marine water body. | No | No |
| Distribution/ Range, timing and intensity of use of areas/ No significant decrease in the range, timing or intensity of use of areas by purple sandpiper other than that occurring from natural patterns of variation | | | |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>To maintain the favourable conservation condition of Roseate Tern in Rockabill SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs) Number No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and / or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair/ Mean number/ No significant decline | | | |
| Distribution: breeding colonies/ Number; location; area (hectares)/ No significant decline | | | |
| Prey biomass available/ Kilogrammes/ No significant decline | | | |
| Barriers to connectivity/ Number; location; shape; area (hectares)/ No significant increase | | | |
| Disturbance at breeding site/ Level of impact/ Human activities should occur at levels that do not adversely affect the breeding roseate tern population | | | |

| Conservation Objectives<br>Attribute/Measure/Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| **Common Tern (*Sterna hirundo*) [A193]**<br>To maintain the favourable conservation condition of Common Tern in Rockabill SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs)/ Number/ No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and/or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair/ Mean number/ No significant decline | | | |
| Distribution: breeding colonies/ Number; location; area (Hectares)/ No significant decline | | | |
| Prey biomass available/ Kilogrammes/ No significant decline | | | |
| Barriers to connectivity/ Number; location; shape; area (hectares)/ No significant increase | | | |
| Disturbance at breeding site/ Level of impact/ Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>To maintain the favourable conservation condition of Arctic Tern in Rockabill SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs)/ Number/ No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect this SCI species through direct contact with pollutants and / or a decline in the quantity and quality of prey fish species. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair/ Mean number/ No significant decline | | | |
| Distribution: breeding colonies/ Number; location; area (Hectares)/ No significant decline | | | |
| Prey biomass available/ Kilogrammes/ No significant decline | | | |
| Barriers to connectivity/ Number; location; shape; area (hectares)/ No significant increase | | | |
| Disturbance at breeding site/ Level of impact/ Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |

### *7.3.6 Mitigation Measures*

206 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Howth Head Coast SPA, Dalkey Islands SPA, and Rockabill SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

207 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

208 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

### *7.3.7 Residual Impacts*

209 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of adversely affecting the conservation objectives, or the favourable conservation condition, of the SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.3.8 Conclusion of Assessment for Howth Head Coast SPA and Dalkey Islands SPA*

210 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA.

## **7.4 North Bull Island SPA [004006]**

### *7.4.1 Ecological Baseline Description for North Bull Island SPA*

211 The Natura 2000 Standard Data Form (NPWS,2020h) lists the SPA as one of the top ten sites in the country for wintering waterfowl. It provides important feeding and roosting habitat for bird species listed as SCIs for the site and supports internationally important populations of light-bellied brent goose and bar-tailed godwit. The quality of the estuarine habitats in the SPA are considered to be very good, part of which are designated as North Dublin Bay SAC. There are no serious imminent threats to the wintering birds. Threats to the site include oil pollution from Dublin Port along with localised commercial bait digging, disturbance from activities such as sailing, walkers and dogs.

### *7.4.2 Special Conservation Interests and Conservation Objectives of North Bull Island SPA*

212 The SCIs of North Bull Island SPA, and the overall conservation objective, are listed in Table 12.

***Table 12: SCIs and Conservation Objectives of North Bull Island SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **North Bull Island SPA [004006]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A052 Teal *Anas crecca*<br>A054 Pintail *Anas acuta*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A160 Curlew *Numenius arquata*<br>A162 Redshank *Tringa totanus*<br>A169 Turnstone *Arenaria interpres*<br>A179 Black-headed Gull *Croicocephalus ridibundus*<br>A999 Wetlands & Waterbirds<br><br>*S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.*<br>NPWS (2015b) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA<br>To maintain the favourable conservation condition of the wetland habitat in North Bull Island SPA as a resource for the regularly occurring migratory waterbirds that utilise it. |

213 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for North Bull Island SPA also informed this assessment.

214 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of North Bull Island SPA are presented in Section 7.4.3.4.

### *7.4.3 Examination and Analysis of Potential Direct and Indirect Impacts*

215 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of North Bull Island SPA, are:

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

#### 7.4.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

216 The 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. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and/or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WwTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of North Bull Island SPA as a result of hydrological impacts.

217 Therefore, (albeit unlikely) 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 they result in significant effects which could have implications for the conservation objectives of North Bull Island SPA.

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

218 No non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within the Proposed Scheme. However, there were records of invasive species in the vicinity of the Proposed Scheme returned from the desk study. During construction and / or routine maintenance / management work, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Poddle, the Grand Canal and the Liffey Estuary Upper, all of which flow into Dublin Bay. Therefore, there is potential for the Proposed Scheme to undermine the conservation objectives of North Bull Island SPA as a result of invasive species spread.

#### 7.4.3.3 Disturbance and displacement impacts

219 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction and / or Operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route. Table 13 provides the indicative Construction noise calculation associated with different Construction activities of the Proposed Scheme at varying distances.

***Table 13: Indicative Construction Noise Calculations at Varying Distances***

| Activity | Predicted CNL at Stated Distance from Edge of Works (dB $L_{Aeq,12hr}$ or $L_{Aeq,4hr}$) | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **10m** | **15m** | **20m** | **30m** | **50m** | **75m** | **100m** | **150m** | **250m** |
| General Road works | 79 | 76 | 73 | 69 | 65 | 61 | 59 | 55 | 51 |
| Road Widening and Utility Diversion | 83 | 80 | 77 | 73 | 69 | 65 | 63 | 59 | 55 |
| Piling Noise | 80 | 77 | 74 | 70 | 66 | 62 | 60 | 56 | 52 |
| Construction Compounds | 78 | 75 | 72 | 68 | 64 | 60 | 58 | 54 | 50 |
| Boundary wall construction | 80 | 77 | 74 | 70 | 66 | 62 | 60 | 56 | 49 |
| Retaining wall construction | 81 | 78 | 75 | 71 | 67 | 63 | 61 | 57 | 53 |
| Additional Structural works-various | 80 | 77 | 74 | 70 | 66 | 62 | 60 | 56 | 52 |
| Urban Realm Landscaping | 79 | 76 | 73 | 69 | 65 | 61 | 59 | 55 | 51 |

220 The North Bull Island SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, golden plover, oystercatcher, curlew, black-headed gull and black-tailed godwit. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme, however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

221 As records of SCI bird species associated with the North Bull Island SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and black-headed gull), it is possible that SCI bird species associated with the North Bull Island SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of North Bull Island SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to

only experience a moderate effect / level of response from areas beyond this distance as a result of noise impacts[16];

- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as Synge GAA pitches, Tymon Park, Pearse Memorial Park and Lorcan O'Toole Park.

#### 7.4.3.4 Summary

222 Table 14 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of North Bull Island SPA, and how these impacts relate to affecting the site's conservation objectives.

[16] Based on 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).

*Table 14: Potential Impacts / Effects on the Conservation Objectives of North Bull Island SPA*

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are mitigation measures required?** | **Residual Impacts?** |
|---|---|---|---|
| **North Bull Island SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Teal (*Anas crecca*) [A052], Pintail (*Anas acuta*) [A054], Shoveler (*Anas clypeata*) [A056 ], Oystercatcher (*Haematopus ostralegus* ) [A130], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Sanderling (*Calidris alba*) [A144], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156], Bar-tailed Godwit (*Limosa lapponica*) [A157], Curlew (*Numenius arquata*) [A160], Redshank (*Tringa totanus*) [A162], Turnstone (*Arenaria interpres*) [A169], Black-headed Gull (*Chroicocephalus ridibundus*) [A179]**<br>To restore the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the SCIs bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1,713ha, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are mitigation measures required? | Residual Impacts? |
|---|---|---|---|
| | pollution sources, could potentially affect the quality the of intertidal /coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |

### *7.4.4 Mitigation Measures*

223 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on North Bull Island SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

224 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

225 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

Measures to Prevent the Spread of Invasive Species to Downstream European Sites

226 The mitigation measures presented above in Section 7.1.4.2 will prevent the spread of invasive species to downstream European sites.

### *7.4.5 Residual Impacts*

227 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of North Bull Island SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of North Bull Island SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.4.6 Conclusion of Assessment for North Bull Island SPA*

228 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of North Bull Island SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of North Bull Island SPA.

## 7.5 South Dublin Bay and River Tolka Estuary SPA [004024]

### *7.5.1 Ecological Baseline Description for South Dublin Bay and River Tolka Estuary SPA*

229 The Natura 2000 Standard Data Form (NPWS, 2020i) states that the SPA possesses extensive intertidal flats, part of which are designated as South Dublin Bay SAC, and which supports wintering waterfowl as part of the wider Dublin Bay population. The site also supports an internationally important population of light-bellied brent geese, feeding on the stands of *Zostera*. It hosts nationally important numbers of six species, is an important site for wintering gulls and is an autumn roosting site for a significant number of terns. The main threat to the site is land reclamation, with other threats including oil pollution from Dublin Port, commercial bait digging and disturbance by walkers and dogs.

### *7.5.2 Special Conservation Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA*

230 The SCIs of South Dublin Bay and River Tolka Estuary SPA, and the overall conservation objective, are listed in Table 15.

***Table 15: SCIs and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **South Dublin Bay and River Tolka Estuary SPA [004024]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A144 Sanderling *Calidris alba*<br>A149 Dunlin *Calidris alpina*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A192 Roseate Tern *Sterna dougallii*<br>A193 Common Tern *Sterna hirundo*<br>A194 Arctic Tern *Sterna paradisaea*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.*<br>NPWS (2015a) *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA<br>To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it |

231 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for South Dublin Bay and River Tolka Estuary SPA also informed this assessment.

232 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of South Dublin Bay and River Tolka Estuary SPA are presented in Section 7.5.3.4.

### *7.5.3 Examination and Analysis of Potential Direct and Indirect Impacts*

233 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the QIs of South Dublin Bay and River Tolka Estuary SPA, are:

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

#### 7.5.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

234 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the

location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of South Dublin Bay and River Tolka Estuary SPA as a result of hydrological impacts.

235 Therefore, (albeit unlikely) 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 this European site, 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 they result in significant effects which could have implications for the conservation objectives of South Dublin Bay and River Tolka Estuary SPA.

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

236 No non-native invasive plant species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within, or in close proximity to, the Proposed Scheme. However, there were records of invasive species in the vicinity of the Proposed Scheme returned from the desk study. During the Construction and / or Operation Phase, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Poddle, the Grand Canal and the Liffey Estuary Upper, all of which flow into Dublin Bay. Therefore, there is potential for the Proposed Scheme to undermine the conservation objectives of South Dublin Bay and River Tolka Estuary SPA as a result of the introduction of non-native invasive species.

#### 7.5.3.3 Disturbance and displacement impacts

237 A temporary and / or permanent increases in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of c. 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

238 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

239 The South Dublin Bay and River Tolka Estuary SPA is designated for wintering SCI species that are known to forage and/or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher and black-headed gull. There are no areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several area of suitable foraging and/or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme.

240 As records of SCI bird species associated with the South Dublin Bay and River Tolka Estuary SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied brent goose, and

black-headed gull), it is likely that SCI bird species associated with the South Dublin Bay and River Tolka Estuary SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of South Dublin Bay and River Tolka Estuary, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding/roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impacts[17];
- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable *ex-situ* feeding areas (playing pitches) within Eamonn Ceannt Park; and
- The availability of large areas of suitable foraging and/or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to nearby SPAs. These include other similar public amenity grassland parks and sports pitches such as Synge GAA pitches, Tymon Park, Pearse Memorial Park and Lorcan O'Toole Park.

#### 7.5.3.4 Summary

241 Table 16 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of South Dublin Bay and River Tolka Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

[17] Based on 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).

*Table 16: Potential Impacts / Effects on the Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA*

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **South Dublin Bay and River Tolka Estuary SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Oystercatcher (*Haematopus ostralegus*) [A130], Ringed Plover (*Charadrius hiaticula*) [A137], Knot (*Calidris canutus*) [A143], Sanderling (*Calidris alba*) [A144], Dunlin (*Calidris alpina alpina*) [A149], Bar-tailed Godwit (*Limosa lapponica*) [A157], Redshank (*Tringa totanus*) [A162], Black-headed Gull (*Chroicocephalus ridibundus*) [A179]**<br>**Note: Grey Plover (*Pluvialis squatarola*) [A141] is proposed for removal from the list of SCI's for the site so no site-specific conservation objective is included for the species**<br>To maintain the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| **Roseate Tern (*Sterna dougallii*) [A192]**<br>To maintain the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Passage population: individuals / Number / No significant decline<br><br>Distribution: roosting areas / Number; location; area (hectares) / No significant decline<br><br>Prey biomass available / Kilogrammes / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish and the quality the of intertidal / coastal habitats | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of roseate tern among the post-breeding aggregation of terns | | | |
| **Common Tern (*Sterna hirundo*) [A193]**<br>To maintain the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish and the quality the of intertidal / coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and/or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| Productivity rate: fledged young per breeding pair / Mean number / No significant decline | | | |
| Passage population: individuals / Number / No significant decline | | | |
| Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline | | | |
| Distribution: roosting areas / Number; location; area (Hectares) / No significant decline | | | |
| Prey biomass available / Kilogrammes / No significant decline | | | |
| Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase | | | |
| Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population | | | |
| Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect | | | |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| the numbers of common tern among the post-breeding aggregation of terns | | | |
| **Arctic Tern (*Sterna paradisaea*) [A194]**<br>To maintain the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Passage population / Number of individuals / No significant decline<br><br>Distribution: roosting areas / Number; location; area (hectares) / No significant decline<br><br>Prey biomass available / Kilogrammes / No significant decline<br><br>Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase<br><br>Disturbance at roosting site / Level of impact / Human activities should occur at levels that do not adversely affect the numbers of Arctic tern among the post-breeding aggregation of terns | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish and the quality the of intertidal / coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species to downstream European sites during construction and operation of the Proposed Scheme. | No |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 2,192ha, other than that occurring from natural patterns of variation | Yes<br>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality the of intertidal / coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations.<br><br>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme.<br><br>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive | No |

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| | habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations. | species to downstream European sites during construction and operation of the Proposed Scheme. | |

### *7.5.4 Mitigation Measures*

242 This section presents the mitigation measures that will be implemented during Construction and Operation Phases to avoid or reduce the potential impacts of the Proposed Scheme on South Dublin Bay and River Tolka Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

243 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

244 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

Measures to Prevent the Spread of Invasive Species to Downstream European Sites

245 The mitigation measures presented above in Section 7.1.4.2 will prevent the spread of invasive species to downstream European sites.

### *7.5.5 Residual Impacts*

246 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of South Dublin Bay and River Tolka Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of South Dublin Bay and River Tolka Estuary SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.5.6 Conclusion of Assessment for South Dublin Bay and River Tolka Estuary SPA*

247 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of South Dublin Bay and River Tolka Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of South Dublin Bay and River Tolka Estuary SPA.

## 7.6 Malahide Estuary SPA [004025]

### *7.6.1 Ecological Baseline Description for Malahide Estuary SPA*

248 Malahide Estuary SPA comprises the estuary of the River Broadmeadow. According to the Natura 2000 Standard Data Form for the site (NPWS, 2020j), the estuary comprises, saltmarsh habitats and extensive intertidal flats. This site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It provides both feeding and roosting areas for a range of wintering waterfowl. It supports an internationally important population of light-bellied brent geese and nationally important populations of a further 12 species. The site is also an important and regular site for a range of autumn passage migrants.

### *7.6.2 Special Conservation Interests and Conservation Objectives of Malahide Estuary SPA*

249 The SCIs of Malahide Estuary SPA, and the overall conservation objective, are listed in Table 17.

***Table 17: SCIs and Conservation Objectives of Malahide Estuary SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Malahide Estuary SPA [004025]**<br>A005 Great Crested Grebe *Podiceps cristatus*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A054 Pintail *Anas acuta*<br>A067 Goldeneye *Bucephala clangula*<br>A069 Red-breasted Merganser *Mergus serrator*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A162 Redshank *Tringa totanus*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.*<br>NPWS (2013h) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA.<br>To maintain the favourable conservation condition of the wetland habitat in Malahide Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it. |

250 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for Malahide Estuary SPA also informed this assessment.

251 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs is deemed to constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the Special Conservation Interests of Malahide Estuary SPA are presented in Section 7.6.3.3.

### *7.6.3 Examination and Analysis of Potential Direct and Indirect Impacts*

252 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of Malahide Estuary SPA, are:

- Habitat degradation / effects on QI / SCI species as a result of hydrological impacts; and,
- Disturbance and displacement impacts.

#### 7.6.3.1 Habitat degradation / effects on QI / SCI species as a result of hydrological impacts

253 The release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of

the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Malahide Estuary SPA as a result of hydrological impacts.

254 Therefore, (albeit unlikely) 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 Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of Malahide SPA.

#### 7.6.3.2 Disturbance and displacement impacts

255 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction Phase and / or Operation Phase of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

256 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

257 Malahide Estuary SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher, golden plover and black-tailed godwit. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme.

258 It is possible that SCI bird species associated with the Malahide Estuary SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Malahide Estuary SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to

only experience a moderate effect / level of response from areas beyond this distance as a result of noise impacts[18];

- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Malahide Estuary SPA. These include other similar public amenity grassland parks and sports pitches such as Synge GAA pitches, Tymon Park, Pearse Memorial Park and Lorcan O'Toole Park. There are also areas of parkland, sports pitches, agricultural land and golf clubs in the vicinity of Malahide Estuary SPA.

#### 7.6.3.3 Summary

259 Table 18 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of Malahide Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

[18] Based on 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).

*Table 18: Potential Impacts / Effects on the Conservation Objectives of Malahide Estuary SPA*

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are Mitigation Measures Required?** | **Residual Impacts?** |
|---|---|---|---|
| **Malahide Estuary SPA** | | | |
| **Great Crested Grebe (*Podiceps cristatus*) [A005], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Pintail (*Anas acuta*) [A054], Goldeneye (*Bucephala clangula*) [A067], Red-breasted Merganser (*Mergus serrator*) [A069], Oystercatcher (*Haematopus ostralegus* ) [A130], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156], Bar-tailed Godwit (*Limosa lapponica*) [A157], Redshank (*Tringa totanus*) [A162]**<br>To restore the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 765ha, other than that occurring from natural patterns of variation | No<br>There is no pathway for impacts to occur on any habitats associated with the Malahide Estuary SPA as the Proposed Scheme is not hydrologically connected to the Malahide Estuary. | No | No |

### *7.6.4 Mitigation Measures*

260 This section presents the mitigation measures that will be implemented during Construction and Operation Phases to avoid or reduce the potential impacts of the Proposed Scheme on Malahide Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

261 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

262 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during Operation of the Proposed Scheme.

### *7.6.5 Residual Impacts*

263 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs and supporting wetland habitat of Malahide Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Malahide Estuary SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.6.6 Conclusion of Assessment for Malahide Estuary SPA*

264 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Malahide Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Malahide Estuary SPA.

## **7.7 Baldoyle Bay SPA [004016]**

### *7.7.1 Ecological Baseline Description for Baldoyle Bay SPA*

265 The Natura 2000 Standard Data Form (NPWS, 2020k) lists the SPA as an estuarine and bay system with habitats of variable but generally good quality. It has extensive mud and sand flats, often with a high organic content and salt marsh habitat. It has good salt marsh fringes where birds roost. The site supports wintering waterfowl, most notably an internationally important population of light-bellied brent goose. It also supports nationally important populations of shelduck, pintail, ringed plover, golden plover, grey plover and bar-tailed godwit. At high tide, the shallow waters attract species such as great-crested grebe and red-breasted merganser. Threats to the site include hunting, eutrophication, bait-digging and human habitation / urbanisation.

### *7.7.2 Special Conservation Interests and Conservation Objectives of Baldoyle Bay SPA*

266 The SCIs of Baldoyle Bay SPA, and the overall conservation objective, are listed in Table 19.

***Table 19: SCIs and Conservation Objectives of Baldoyle Bay SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Baldoyle Bay SPA [004016]**<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A140 Golden Plover *Pluvialis apricaria*<br>A141 Grey Plover *Pluvialis squatarola*<br>A157 Bar-tailed Godwit *Limosa lapponica*<br>A999 Wetland and Waterbirds<br><br>*S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.*<br>NPWS (2013g) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA.<br>To maintain the favourable conservation condition of the wetland habitat in Baldoyle Bay SPA. |

267 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for Baldoyle Bay SPA also informed this assessment.

268 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the QIs of Baldoyle Bay SPA are presented in Section 7.7.3.3.

### *7.7.3 Examination and Analysis of Potential Direct and Indirect Impacts*

269 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of Baldoyle Bay SPA, are:

- Habitat degradation/effects on SCI species as a result of hydrological impacts; and
- Disturbance and displacement impacts.

#### 7.7.3.1 Habitat degradation/effects on SCI species as a result of hydrological impacts.

270 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition, the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Baldoyle Bay SPA as a result of hydrological impacts.

271 Therefore (albeit unlikely), 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 Dublin Bay.

As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of Baldoyle SPA.

#### 7.7.3.2 Disturbance and displacement impacts

272 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

273 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

274 Baldoyle Bay SPA is designated for a wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches e.g., light-bellied brent goose and golden plover. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feed*ing site:*

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

275 As records of light-bellied Brent goose have been returned from the desk study in the vicinity of the Proposed Scheme, it is considered to be possible that light-bellied brent goose associated with the Baldoyle Bay SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Baldoyle Bay, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impacts[19;]
- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-

[19] Based on 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).

storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and

- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Baldoyle Bay SPA. These include other similar public amenity grassland parks and sports pitches such as the Red Arches, Seagrange Park, the Baldoyle Bird Quiet Zone, Synge GAA pitches, Tymon Park, Pearse Memorial Park and Lorcan O'Toole Park.

#### 7.7.3.3 Summary

276 Table 20 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of Baldoyle Bay SPA, and how these impacts relate to affecting the site's conservation objectives.

*Table 20: Potential Impacts / Effects on the Conservation Objectives of Baldoyle Bay SPA*

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **Baldoyle Bay SPA** | | | |
| **Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Ringed Plover (*Charadrius hiaticula)* [A137], Golden Plover (*Pluvialis apricaria*) [A140], Grey Plover (*Pluvialis squatarola*) [A141], Bar-tailed Godwit (*Limosa lapponica*) [A157]**<br>To restore the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 263ha, other than that occurring from natural patterns of variation | No<br>There is no pathway for impacts to occur on any habitats associated with the Baldoyle Bay SPA as the Proposed Scheme is not hydrologically connected to the Baldoyle Bay. | No | No |

### *7.7.4 Mitigation Measures*

277 This section presents the mitigation measures that will be implemented during Construction and Operation phases to avoid or reduce the potential impacts of the Proposed Scheme on Baldoyle Bay SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

278 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

279 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

### *7.7.5 Residual Impacts*

280 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs and supporting wetland habitat of Baldoyle Bay SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Baldoyle Bay SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.7.6 Conclusion of Assessment for Baldoyle Bay SPA*

281 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Baldoyle Bay SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Baldoyle Bay SPA.

## **7.8 Rogerstown Estuary SPA [004015]**

### *7.8.1 Ecological Baseline Description for Rogerstown Estuary SPA*

282 The Natura Standard Data Form (NPWS, 2020l) lists Rogerstown Estuary SPA as a relatively small estuarine system in north County Dublin. It has salt marsh and sand dune habitat as well as agricultural fields which have ornithological and botanical interest. It has extensive sand and mud flats and supports wintering waterfowl. It supports an internationally important population of light-bellied brent goose and nationally important populations of a further 15 species. It is an important and regular site for a range of autumn passage migrants. Little tern has bred in Rogerstown Estuary in the past and there are populations of three Red Data Book plant species present. The main threats to the site include disposal of household/recreational facility waste, invasive species, disposal of industrial waste, fertilisation and landfill, land reclamation and drying out.

### *7.8.2 Special Conservation Interests and Conservation Objectives of Rogerstown Estuary SPA*

283 The SCIs of Rogerstown Estuary SPA, and the overall conservation objective, are listed in Table 21.

***Table 21: SCIs and Conservation Objectives of Rogerstown Estuary SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Rogerstown Estuary SPA [004015]**<br>A043 Greylag Goose *Anser anser*<br>A046 Brent Goose *Branta bernicla hrota*<br>A048 Shelduck *Tadorna tadorna*<br>A056 Shoveler *Anas clypeata*<br>A130 Oystercatcher *Haematopus ostralegus*<br>A137 Ringed Plover *Charadrius hiaticula*<br>A141 Grey Plover *Pluvialis squatarola*<br>A143 Knot *Calidris canutus*<br>A149 Dunlin *Calidris alpina alpina*<br>A156 Black-tailed Godwit *Limosa limosa*<br>A162 Redshank *Tringa totanus*<br>A999 Wetlands<br><br>*S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.*<br>NPWS (2013i) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA<br>To maintain the favourable conservation condition of wetland habitat in Rogerstown Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it |

284 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for Rogerstown Estuary SPA also informed this assessment.

285 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of Rogerstown Estuary SPA are presented in Section 7.8.3.3.

### *7.8.3 Examination and Analysis of Potential Direct and Indirect Impacts*

286 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the QIs of Rogerstown Estuary SPA, are:

- Habitat degradation/effects on SCI species as a result of hydrological impacts; and,
- Disturbance and displacement impacts.

#### 7.8.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

287 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the

Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WwTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Rogerstown Estuary SPA as a result of hydrological impacts.

288 Therefore, (albeit unlikely) 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 Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of Rogerstown Estuary SPA.

#### 7.8.3.2 Disturbance and displacement impacts

289 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction Phase and / or Operation Phase of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

290 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

291 Rogerstown Estuary SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher and black-tailed godwit. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

292 As records of SCI bird species associated with Rogerstown Estuary SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e*.* light-bellied Brent goose), it is likely that SCI bird species associated with the Rogerstown Estuary SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Rogerstown Estuary, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impact[20];

[20] Based on 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).

- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Rogerstown Estuary SPA. These include other similar parkland and pitches as well as golf courses and agricultural land in the vicinity of Rogerstown Estuary.

#### 7.8.3.3 Summary

293 Table 22 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of Rogerstown Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

*Table 22: Potential Impacts / Effects on the Conservation Objectives of Rogerstown Estuary SPA*

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are Mitigation Measures Required?** | **Residual Impacts?** |
|---|---|---|---|
| **Rogerstown Estuary SPA** | | | |
| **Greylag Goose [A043], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Shelduck (*Tadorna tadorna*) [A048], Shoveler (*Anas clypeata*) [A056 ], Oystercatcher (*Haematopus ostralegus* ) [A130], Ringed Plover (*Charadrius hiaticula*) [A137], Grey Plover (*Pluvialis squatarola*) [A141], Knot (*Calidris canutus*) [A143], Dunlin (*Calidris alpina alpina*) [A149], Black-tailed Godwit (*Limosa limosa*) [A156] and Redshank (*Tringa totanus*) [A162]**<br>To restore the favourable conservation condition of the SCIs of the SPA, which is defined as follows: | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| **Wetlands [A999]**<br>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows: | | | |
| Habitat area / Hectares / The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 646ha, other than that occurring from natural patterns of variation | No<br>There is no pathway for impacts to occur on any habitats associated with the Rogerstown Estuary SPA as the Proposed Scheme is not hydrologically connected to Rogerstown Estuary. | No | No |

### *7.8.4 Mitigation Measures*

294 This section presents the mitigation measures that will be implemented during Construction and Operation phases to avoid or reduce the potential impacts of the Proposed Scheme on Rogerstown Estuary SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

295 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during Construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

296 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during Operation of the Proposed Scheme.

### *7.8.5 Residual Impacts*

297 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of Rogerstown Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Rogerstown Estuary SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.8.6 Conclusion of Assessment for Rogerstown Estuary SPA*

298 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Rogerstown Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Rogerstown Estuary SPA.

## **7.9 Skerries Islands SPA [004122]**

### *7.9.1 Ecological Baseline Description for Skerries Islands SPA*

299 The Natura Standard Data Form (NPWS, 2020m) lists Skerries Islands SPA as a group of three small, uninhabited islands between *c.* 0.5 and 1.5km off the north Dublin coastline. Habitats on the islands include low cliffs, rocky shores, sandflats and a shingle bar. Vegetation of the islands is dominated by rank grasses and brambles. The site has nationally important breeding colonies of cormorant, shag, herring gull and greater black-backed gull. In winter, the site is visited by a good diversity of waterfowl. It supports an internationally important population of light-bellied brent goose and nationally important populations of cormorant, purple sandpiper and turnstone.

### *7.9.2 Special Conservation Interests and Conservation Objectives of Skerries Islands SPA*

300 The SCIs of Skerries Islands SPA, and the overall conservation objective, are listed in Table 23.

***Table 23: SCIs and Conservation Objectives of Skerries Islands SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Skerries Islands SPA [004122]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A046 Light-bellied Brent Goose *Branta bernicla hrota*<br>A148 Purple Sandpiper *Calidris maritima*<br>A169 Turnstone *Arenaria interpres*<br>A184 Herring Gull *Larus argentatus*<br><br>*S.I. No. 245/2010 - European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.*<br>NPWS (2022f) *Conservation objectives for Skerries Islands SPA [004122].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA |

In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives document for Skerries Islands SPA also informed this assessment. These European sites are identified in Table 25.

301 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of Skerries Islands SPA are presented in Section 7.9.3.3.

### *7.9.3 Examination and Analysis of Potential Direct and Indirect Impacts*

302 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of Skerries Islands SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts; and
- Disturbance and displacement impacts.

#### 7.9.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts.

303 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Skerries Islands SPA as a result of hydrological impacts.

304 Therefore, (albeit unlikely) 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 Dublin Bay.

As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of Skerries Islands SPA.

#### 7.9.3.2 Disturbance and displacement impacts

305 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction Phase and / or Operation Phase of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond. The Operational Phase is not deemed to result in significant changes to existing noise levels due to the urban locality of the Proposed Scheme as an existing transport route.

306 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

307 Skerries Islands SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose and herring gull. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

308 As records of SCI bird species associated with Skerries Islands SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose and herring gull), it is considered to be possible that SCI species associated with Skerries Islands SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Skerries Islands SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impact[21];
- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the

[21] Based on 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).

existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and

- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Skerries Islands SPA including similar parkland, golf courses and agricultural land.

#### 7.9.3.3 Summary

309 Table 24 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of Skerries Islands SPA, and how these impacts relate to affecting the site's conservation objectives.

*Table 24: Potential Impacts / Effects on the Conservation Objectives of Skerries Islands SPA*

| **Conservation Objectives**<br>**Attribute / Measure / Target** | **Potential Impacts Requiring Mitigation?** | **Are Mitigation Measures Required?** | **Residual Impacts?** |
|---|---|---|---|
| **Skerries Islands SPA** | | | |
| **Cormorant (*Phalacrocorax* carbo) [A017], Shag (*Phalacrocorax aristotelis*) [A018], Light-bellied Brent Goose (*Branta bernicla hrota*) [A046], Purple Sandpiper (*Calidris maritima*) [A148], Turnstone (*Arenaria interpres*) [A169] and Herring Gull (*Larus argentatus*) [A184]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |
| Population trend / Percentage change / Long term population trend stable or increasing | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | | | |

### *7.9.4 Mitigation Measures*

310 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on Skerries Islands SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

311 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

312 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

### *7.9.5 Residual Impacts*

313 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of Skerries Islands SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Skerries Islands SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

### *7.9.6 Conclusion of Assessment for Skerries Islands SPA*

314 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Skerries Islands SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Skerries Islands SPA.

## **7.10 Ireland's Eye SPA [004117] and Lambay Island SPA [004069]**

### *7.10.1 Ecological Baseline Description for Ireland's Eye SPA*

315 According to the Natura 2000 Standard Data Form (NPWS, 2020n), this SPA is a small uninhabited island located c. 1.5km north of Howth Head. The main habitat on the island is a mix of dry grassland and bracken. There are impressive cliff formations along the northern and eastern sides of the island. This SPA has a large seabird colony, with 11 species breeding regularly. It is designated for breeding populations of cormorant, herring gull, kittiwake, guillemot and razorbill. Major threats to the site include walking, horse-riding and non-motorised vehicles and leisure fishing.

### *7.10.2 Ecological Baseline Description for Lambay Island SPA*

316 According to the Natura 2000 Standard Data Form (NPWS, 2020o), this SPA is an island located c. 4km off the north Dublin coastline. Habitats present on the island include rocky shorelines, low tide sandflats and fertile grassland. The northern, eastern and southern shorelines consist of steep cliffs. The predominant land use of the island is cattle grazing. This SPA has one of the most important seabird colonies in Ireland, with 12 species breeding regularly. It has been designated for breeding populations of fulmar, cormorant, shag, greylag goose, lesser black-backed gull, herring gull, kittiwake, guillemot, razorbill and puffin.

### *7.10.3 Special Conservation Interests and Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA*

317 The SCIs of Ireland's Eye SPA and Lambay Island SPA, and the overall conservation objectives, are listed in Table 25.

***Table 25: SCIs and Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **Ireland's Eye SPA [004117]**<br>A017 Cormorant *Phalacrocorax carbo*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br><br>NPWS (2022d) *Conservation objectives for Ireland's Eye SPA [004117].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA |
| **Lambay Island SPA [004069]**<br>A009 Fulmar *Fulmarus glacialis*<br>A017 Cormorant *Phalacrocorax carbo*<br>A018 Shag *Phalacrocorax aristotelis*<br>A043 Greylag Goose *Anser anser*<br>A183 Lesser Black-backed Gull *Larus fuscus*<br>A184 Herring Gull *Larus argentatus*<br>A188 Kittiwake *Rissa tridactyla*<br>A199 Guillemot *Uria aalge*<br>A200 Razorbill *Alca torda*<br>A204 Puffin *Fratercula arctica*<br><br>NPWS (2022e) *Conservation objectives for Lambay Island SPA [004069].* First Order Site-specific Conservation Objectives. Version 1. Department of Housing, Local Government and Heritage | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA |

318 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives documents for Ireland's Eye SPA and Lambay Island SPA also informed this assessment. These European sites are identified in Table 26.

319 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs of Ireland's Eye SPA and Lambay Island SPA are presented in Section 7.10.4.3.

### *7.10.4 Examination and Analysis of Potential Direct and Indirect Impacts*

320 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCIs of Ireland's Eye SPA and Lambay Island SPA, are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts; and,
- Disturbance and displacement impacts.

#### 7.10.4.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

321 The 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. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WwTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of Ireland's Eye SPA and Lambay Island SPA as a result of hydrological impacts.

322 Therefore, (albeit unlikely) 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 Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available SCI bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Ireland's Eye SPA and Lambay Island SPA.

#### 7.10.4.2 Disturbance and displacement impacts

323 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

324 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different Construction activities of the Proposed Scheme.

325 Ireland's Eye SPA and Lambay Island SPA are designated for breeding SCI gull species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include black-headed gull, herring gull and lesser black-backed gull. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and/or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme, including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

326 As records of SCI bird species associated with Ireland's Eye SPA and Lambay Island SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., herring gull, black-headed gull and lesser black-backed gull), it is considered to be possible that these species currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Ireland's Eye SPA or Lambay Island SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works

(where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impact[22];

- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and,
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Ireland's Eye SPA and Lambay Island SPA. These include marine habitats surrounding the islands, golf clubs, agricultural lands and public parks / sports pitches in the North County Dublin area.

#### 7.10.4.3 Summary

327 Table 26 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of Ireland's Eye SPA and Lambay Island SPA, and how these impacts relate to affecting the site's conservation objectives.

[22] Based on 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).

*Table 26: Potential Impacts / Effects on the Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA.*

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **Ireland's Eye SPA** | | | |
| **Cormorant [A017], Herring Gull [A184], Kittiwake [A188], Guillemot [A199], Razorbill [A200]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |
| **Lambay Island SPA** | | | |
| **Fulmar [A009], Cormorant [A017], Shag [A018], Greylag Goose [A043], Lesser Black-backed Gull [A183], Herring Gull [A184], Kittiwake [A188], Guillemot [A199], Razorbill [A200], Puffin [A204]**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for Rogerstown Estuary SPA [004015] | | | |
| Population trend / Percentage change / Long term population trend stable or increasing<br><br>Distribution / Range, timing and intensity of use of areas / No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation | Yes<br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |

*7.10.5 Mitigation Measures*

328 This section presents the mitigation measures that will be implemented during Construction and Operation Phases to avoid or reduce the potential impacts of the Proposed Scheme on Ireland's Eye SPA and Lambay Island SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

329 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

330 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

7.10.5.1 Residual Impacts

331 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of Ireland's Eye SPA and Lambay Island SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Ireland's Eye SPA and Lambay Island SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

*7.10.6 Conclusion of Assessment for Ireland's Eye SPA*

332 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of Ireland's Eye SPA and Lambay Island SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of Irelands Eye SPA and Lambay Island SPA.

## 7.11 The Murrough SPA [004186]

*7.11.1 Ecological Baseline Description for The Murrough SPA*

333 According to the Natura 2000 Standard Data Form (NPWS, 2020p), this SPA comprises a coastal wetland complex stretching for 13km from Kilcoole train station southwards towards Wicklow town. The site extends between the 200metre low water mark inland up to 1km in places. In terms of habitat diversity it includes the coastal water, a shingle shore with some sand and cobble. The SPA is bisected by the Dublin Rosslare railway line which runs along the upper part of the shingle beach. Much of the low-lying land behind the railway is manged for agriculture including reclaimed wetland, although a number of wet and brackish marshes remain including Broad Lough at its southern end and the manged wetland complex associated with Kilcoole reserve. This extensive coastal wetland complex is considered oh high importance owing to the numbers and variety of waterfowl species that it holds in winter and on passage. Its shingle beach also supports the country largest breeding colony of Little Tern. The main threats listed for the site include: the presence of Railway lines, Fertilisation of agricultural lands and the presence of walkers, horse-riders and non-motorised vehicles.

*7.11.2 Special Conservation Interests and Conservation Objectives for The Murrough SPA*

334 The SCIs of The Murrough SPA and the overall conservation objectives are listed in Table 27.

***Table 27: SCIs and Conservation Objectives of The Murrough SPA***

| SCI(s) | Conservation Objective(s) |
|---|---|
| **The Murrough SPA [004186]**<br>A001 Red-throated Diver *Gavia stellata*<br>A043 Greylag Goose *Anser anser*<br>A046 Light Bellied Brent Goose *Branta bernicla hrota*<br>A050 Wigeon *Anas penelope*<br>A052 Teal *Anas crecca*<br>A179 Black-headed Gull *Chroicocephalus ridibundus*<br>A162 Herring Gull *Larus argentatus*<br>A195 Little Tern *Sterna albifrons*<br>A999 Wetlands<br><br>*S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.*<br>NPWS (2022g) *Conservation Objectives for the Murrough SPA [004186]. First order Site-Specific Conservation Objectives Version 1.0.* Department of Housing, Local Government and Heritage. | To maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA.<br><br>To maintain or restore to favourable conservation condition of the wetland habitat at The Murrough SPA as a resource for the regularly occurring migratory waterbirds that utilise it. |

335 In conjunction with considering the generic conservation objective for this SPA "*To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA*", the site-specific conservation objectives documents for a number of European sites also informed this assessment.

336 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the SCIs within the European site. Affecting the conservation condition of the SCIs would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the SCIs in respect of The Murrough SPA are presented in Section 7.11.3.2.

### *7.11.3 Examination and Analysis of Potential Direct and Indirect Impacts*

337 The direct and / or indirect impacts by which the Proposed Scheme could (in the absence of mitigation measures) potentially affect the conservation objective attributes and targets supporting the conservation condition of the SCI for The Murrough SPA are:

- Habitat degradation / effects on SCI species as a result of hydrological impacts; and,
- Disturbance and displacement impacts.

#### 7.11.3.1 Habitat degradation / effects on SCI species as a result of hydrological impacts

338 The release of contaminated surface water runoff and / or an accidental spillage or pollution event into any surface water features during the Construction Phase, or Operation Phase, has the potential to affect water quality in the receiving aquatic environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and the accidental spillage and / or leaks of contaminants into receiving waters. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge. The Proposed Scheme is hydrologically connected to Dublin Bay via the River Poddle, the Grand Canal and the Liffey Estuary Upper and Lower. In addition, the Proposed Scheme is hydrologically connected to Dublin Bay as a result of surface waters from the footprint of the Proposed Scheme which will join the public sewer and will be treated at the Irish Water Ringsend WWTP prior to subsequent discharge to Dublin Bay via the Liffey Estuary Lower. Therefore, there

is potential, for the Proposed Scheme, to result in significant effects which could have implications for the conservation objectives of The Murrough SPA as a result of hydrological impacts.

339 Therefore, (albeit unlikely) 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 Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. 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 they result in significant effects which could have implications for the conservation objectives of The Murrough SPA.

#### 7.11.3.1 Disturbance and displacement impacts

340 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the Construction Phase and / or Operation Phase of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and / or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

341 Table 13 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different Construction activities of the Proposed Scheme.

342 The Murrough SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, black-headed gull and herring gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of and adjacent to the Proposed Scheme (i.e. ,within the disturbance ZoI), including one known inland wintering bird feeding site:

- Eamonn Ceannt Park located approximately 60m from the Proposed Scheme (Scott Cawley Ltd., 2017).

343 As records of SCI bird species associated with The Murrough SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e., light-bellied Brent goose, black-headed gull and herring gull,), it is considered to be possible that SCI species associated with The Murrough SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of The Murrough SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- For the majority of construction activities, any wintering birds present at a distance of 50 to 75m or more from the edge of works (where noise levels will be between 69dB and 60dB) would experience only a moderate effect / level of response, 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. Within a 50m distance from the edge of works (where construction noise levels will be above 70dB) birds would be likely to move out of the affected zone, or leave the site altogether. Therefore, the worst-case exclusion or displacement of birds due to noise impacts during construction works would be for birds using the zone within 75 to 100m of the edge of construction works only, with birds likely to only experience a moderate effect / level of response from areas beyond this distance as a result of noise impact[23];
- Impacts associated with increased levels of noise disturbance are unlikely to result in the displacement of these SCI species from Eamonn Ceannt Park, given the minor works

[23] Based on 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).

proposed in proximity to the site (retention of existing surfaces and tie in of cycleways), the existing busy Sundrive Road (already producing similar noise levels, to which a level of habituation is to be expected) and the existing screening present (in the form of existing 2-storey residential houses and gardens along Sundrive Road and mature treelines within the Park itself) between the Proposed Scheme and the viable ex-situ feeding areas (playing pitches) within Eamonn Ceannt Park; and

- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to The Murrough SPA. These include other similar public amenity grassland parks and sports pitches in Co. Dublin as well as extensive areas of agricultural land and golf courses in Co. Wicklow.

#### 7.11.3.2 Summary

344 Table 28 presents a summary of the potential impacts of the Proposed Scheme on the SCIs of The Murrough SPA, and how these impacts relate to affecting the site's conservation objectives.

*Table 28: Potential Impacts / Effects on the Conservation Objectives of The Murrough SPA*

| Conservation Objectives<br>Attribute / Measure / Target | Potential Impacts Requiring Mitigation? | Are Mitigation Measures Required? | Residual Impacts? |
|---|---|---|---|
| **The Murrough SPA** | | | |
| **Red-throated Diver [A001]; Greylag Goose [A043]; Light-Bellied Brent Goose [A046]; Wigeon [A050]; Teal [A052]; Black-Headed Gull [179]; Herring Gull [184];**<br>There is no site-specific conservation objectives document available for this SPA. Therefore, the attributes, measures and targets below have been developed based on the specific conservation objectives available for The Raven SPA [004019] (NPWS, 2012a); Rogerstown Estuary SPA [004015] (NPWS, 2013c); South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015b); Wexford Harbour and Slobs SPA [004076] (NPWS, 2012b); North Bull Island SPA [004006] (NPWS, 2015a); and Boyne Estuary SPA [004080] (NPWS, 2013j) | | | |
| Population trend / % change / Long term population trend stable or increasing<br><br>Distribution / Number and range of areas used by waterbirds / There should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation<br><br>Distribution/Range, timing and intensity of use of areas/No significant decrease in the range, timing and intensity of use of areas by all of the above-named species, other than that occurring from natural patterns of variation<br><br>(For Little Tern) Breeding population abundance: Productivity Rate, Distribution of Breeding Colonies, Prey biomass availability, barriers to connectivity, disturbance at the breeding sites. | Yes<br><br>In a worst case scenario, an accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay, which SCI birds may utilise outside of their core SPA foraging areas. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the quality the of intertidal/coastal habitats that support the SCI bird species of the SPA. This could potentially affect the use of habitat areas by birds and have long-term effects on the SPA populations. | Yes<br><br>The mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during construction and operation of the Proposed Scheme. | No |

#### *7.11.4 Mitigation Measures*

345 This section presents the mitigation measures that will be implemented during Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on The Murrough SPA. All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment.

Measures to Protect Surface Water Quality during Construction

346 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

347 The mitigation measures presented above in Section 7.1.4.1 will protect surface water quality during operation of the Proposed Scheme.

#### *7.11.5 Residual Impacts*

348 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the SCIs of The Murrough SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of The Murrough SPA. As is confirmed by the WFD Assessment for the Proposed Scheme (refer to Appendix V), the proposed Scheme will not cause a deterioration in status in any water body, will not prevent any water body from achieving good ecological status or good ecological potential, and it can be concluded that the Proposed Scheme complies with all requirements of the WFD.

#### *7.11.6 Conclusion of Assessment for The Murrough SPA*

349 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the SCIs of The Murrough SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the SCIs, it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity The Murrough SPA and there is no reasonable scientific doubt about the conclusion.

## 8 Summary of Mitigation Measures and Residual Impacts

### 8.1 Summary of Mitigation Measures

350 This section summarises the mitigation measures that will be implemented during the Construction and Operation to avoid or reduce the potential impacts of the Proposed Scheme on the European sites as already set out throughout Section 7. A matrix of mitigation measures is provided in Table 29, identifying the specific mitigation measures required for each relevant European site.

351 All of the mitigation measures will be implemented in full and are best practice, and tried and tested, effective control measures to protect the receiving environment. Mitigation measures and associated Management Plans are included within the CEMP provided in Appendix III, all of which shall, at a minimum, be implemented during the Construction Phase of the Proposed Scheme.

### 8.2 Summary of Residual Impacts

352 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme will not have any adverse effect on the conservation objectives, or the favourable conservation condition, of the QI habitats and species and / or SCI species of the European sites assessed. There are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of such European sites.

353 A matrix identifying those aspects which will be subject to mitigation measures and the residual impacts post mitigation is provided in Table 29 for the relevant European sites.

***Table 29: Matrix of Mitigation Measures and Residual Impacts***

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmen-tation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | |
| North Dublin Bay SAC | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | No |
| South Dublin Bay SAC | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | No |
| Rockabill to Dalkey Island SAC | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Lambay Island SAC | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmen-tation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | |
| Howth Head Coast SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Dalkey Islands SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Rockabill SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| North Bull Island SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmen-tation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | |
| South Dublin Bay & River Tolka Estuary SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | ✓ Section 7.1.4.2 / Section 5.3 in CEMP | X | X | No |
| Malahide Estuary SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Baldoyle Bay SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Rogerstown Estuary SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |

| European site | Potential Impacts | | | | | | | | | | | | Any adverse effect on the integrity of European sies (post mitigation) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Construction | | | | | | Operation | | | | | | |
| | Habitat Loss and Fragmentation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | Habitat Loss and Fragmen-tation | Hydrology | Hydro-geology | Invasive Species | Air Quality | Disturbance / Displacement | |
| Skerries Islands SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Ireland's Eye SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| Lambay Island SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |
| The Murrough SPA | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | X | ✓ Section 7.1.4.1 / Section 5.4 in CEMP | X | X | X | X | No |

# 9 In Combination Assessment

354 This section of the NIS presents the assessment carried out to examine whether any other plans or projects have the potential to act in combination with the Proposed Scheme to have a significant effect on any of the European sites including those within its ZoI.

355 There are sixteen (16) European sites within the ZoI of the Proposed Scheme, namely:

- North Dublin Bay SAC;
- South Dublin Bay SAC;
- Rockabill to Dalkey Islands SAC;
- Lambay Island SAC;
- Howth Head Coast SPA;
- Dalkey Islands SPA;
- Rockabill SPA;
- North Bull Island SPA;
- South Dublin Bay And River Tolka Estuary SPA;
- Ireland's Eye SPA;
- Malahide Estuary SPA;
- Baldoyle Bay SPA;
- Rogerstown Estuary SPA;
- Skerries Islands SPA;
- Lambay Island SPA; and,
- The Murrough SPA.

356 All other European sites fall beyond the ZoI 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. The protective policies and objectives from land use plans referred to in this section are included in Section 9.2.

## 9.1 Analysis of Potential In Combination Effects

357 The in combination assessment involved identifying those plans and projects which have the potential to impact on those European sites within the ZoI of the Proposed Scheme.

358 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 ZoI of the Proposed Scheme. These are presented in Table 30.

359 The potential cumulative impacts on those European sites within the ZoI of the Proposed Scheme, from the Proposed Scheme, in combination with the plans and projects listed in Table 30 were identified and assessed. This assessment is presented below in Table 31 and Table 32.

***Table 30: Land Use Plans and Programmes Considered for the In Combination Assessment***

| **National Plans** |
|---|
| National Energy & Climate Plan 2021-2030 |
| Climate Action Plan 2023 |
| National Spatial Strategy for Ireland 2002-2020 |
| Project Ireland 2040 – Building Ireland's Future |
| National Transport Authority Integrated Implementation Plan 2019-2024 |
| Smarter Travel a Sustainable Transport Future 2009-2020 |
| National Biodiversity Action Plan 2017-2021 |
| River Basin Management Plan 2018-2021 |
| National Air Pollution Control Programme (NAPCP) 2021 |
| 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 |
| 2022 Greater Dublin Area Cycle Network (Supersedes Greater Dublin Area Cycle Network Plan 2013) |
| Greater Dublin Area Transport Strategy 2022-2042 |
| Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016 |
| **County / Local Plans** |
| **Dublin City Development Plan 2022-2028** |
| Dublin City Biodiversity Action Plan 2021-2025 |
| Dublin City Council Climate Action Plan 2019-2024 |
| • Clongriffin-Belmayne Local Area Plan 2012-2018 |
| • Naas Road Local Area Plan 2013-2023 |
| **South Dublin County Council Development Plan 2022-2028** |
| 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 |
| **Dún Laoghaire- Rathdown County Development Plan (2022-2028)** |
| Dún Laoghaire- Rathdown Biodiversity Action Plan 2021-2025 |
| Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024 |
| • Stillorgan Local Area Plan 2018-2024 |
| • Woodbrook-Shanganagh Local Area Plan 2017-2024 |
| **Fingal Development Plan 2017-2023** |
| Fingal Biodiversity Action Plan 2010-2015 |
| Fingal County Council Climate Action Plan 2019-2024 |
| • 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

**Wicklow County Development Plan 2022-2028**

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

**Projects**

- 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:
- 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:
- 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
- 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:
- DART+ Coastal South Project
- 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 local traffic movements
- MetroLink
- Greater Dublin Drainage (GDD)
- Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements)
- Dublin Array - offshore windfarm
- Southern Port Access Route (SPAR)

- Snugborough Interchange Upgrade
- 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.
- Alterations 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.
- Baldoyle Airport Aviation Fuel Line
- Park development project at the Racecourse Park
- 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
- Increase the capacity of the Dublin Waste to Energy Facility from 600,000 tonnes per annum to 690,000 tonnes per annum
- Clutterland 110kV GIS Substation building and 2 underground single circuit transmission lines
- 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
- Provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grand Castle – Kilmahud circuits.
- Proposed Cycle Scheme – safe routes for school - DDCC planning reference SD228/008
- 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
- Bray to City Centre Core Bus Corridor Scheme
- Belfield / Blackrock to City Centre Core Bus Corridor Scheme
- Ringsend to City Centre Core Bus Corridor Scheme
- A range of Strategic Housing Developments
- A range of Large Scale Residential Developments
- GDA Transport Strategy Park and Ride (All Included despite distance as hydrological connectivity cannot be ruled out to downstream European sites in Dublin Bay)
- A range of Irish Water Projects

*Table 31: In Combination Assessment of Plans and Programmes*

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **National Energy & Climate Plan 2021-2030**<br>This National Energy and Climate Plan builds on previous national strategies and sets out in detail objectives regarding the five energy dimensions together with planned policies and measures to ensure that these objectives are achieved. It aims as a fundamental national objective to pursue a trajectory of emissions reduction which is in line with reaching net zero in Ireland by 2050.<br>In relation to transport the plan aims to:<br>• make growth less transport intensive through better planning, remote and home-working and modal shift to public transport<br>• Increase the renewable biofuel content of motor fuels<br>• Set targets for the conversion of public transport fleets to zero carbon alternatives. | No potential impact pathways to European sites.<br>There are no specific spatial references in this policy document and therefore, no specific link (in terms of potential impact pathways) between it and European sites within the ZoI of the Proposed Scheme. | No in combination impact<br>Key to considering the on-going evolution of national climate policy included are the obligations of the State under EU law (e.g., the EU Habitats Directive), and the promotion of sustainable development. Considering that, this policy position poses no identifiable risk of resulting in adverse effects on the integrity of any European sites. |
| **Climate Action Plan 2023 – Changing Ireland for Better**<br>The Plan, which was not subject to AA, provides the Governments' second update to the Climate Action Plan 2019, outlines the actions required to 2035 and beyond, to guide the Governments' joint efforts over the coming years at reducing greenhouse gas emissions. The plan implements the carbon budgets and sectoral emissions ceilings and sets a roadmap | There is the potential that actions and or developments implemented under the Climate Action Plan 2023 could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot yet be defined and while the Plan includes a considerable number of actions, the detailed implementation steps are not yet available as a supplementary *Annex of Actions* is to be published in 2023. | No in combination impact.<br>Although lacking full implementation detail, the bulk of the actions require the development of guidance, standards and plans, to positively reduce the greenhouse gas emissions. Any sectoral plans developed on foot of this will themselves be subject to AA and Strategic Environmental Assessment |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| for taking decisive action to halve our emissions by 2030 and reach net zero no later than 2050. It will be updated annually and will be improved and strengthened when required, allowing us to learn from our experiences in what is a very significant and complex undertaking. | | Any projects arising out of the Plan or the Sectoral plans required to achieve the objectives of the Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022 - 2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Climate Action Plan 2023 Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Development Plan Ireland 2021-2030**<br><br>As part of Project Ireland 2040 the National Development Plan sets out the Government's over-arching investment strategy and budget for the | There is the potential that developments implemented under the National Development Plan could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. | No in combination impact.<br><br>Any projects required to achieve the objectives of the National Development Plan must comply with the requirements and obligations of EU and Irish planning and |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| period 2021-2030. The plan that aims to balance demand for public investment across all sectors and regions of Ireland with a major focus on the delivery of infrastructure projects. | However, future developments implemented through the National Development Plan have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2016-2022), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the National Development Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Project Ireland 2040 – National Planning Framework**<br>The National Planning Framework **is** a high-level strategic plan to guide future growth and development in Ireland. The NPF makes reference to delivering projects in Dublin (here Dublin refers to the Greater Dublin Area (GDA). This area includes | There is the potential that developments implemented under Project Ireland 2040 could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through Project Ireland 2040 have the potential to lie either within those European sites, or be | No in combination impact.<br>Any projects required to achieve the objectives of Project Ireland 2040 Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| Dublin City and the following surrounding lands and counties: Dún Laoghaire/Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow. Projects such as the DART expansion programme, Bus Connects Scheme, and investment at Dublin Port, amongst others are referenced. Key objectives of the plan include:<br>• Managing sustainable growth of cities, towns and villages;<br>• Providing accessibility between key urban centres; and,<br>• Enhance public transport in a sustainable manner. | situated in a location where they may be within the ZoI of those European sites. | the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, Project Ireland 2040 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Transport Authority Integrated Implementation Plan 2019-2024**<br>An Infrastructure investment programme forms the core of this plan. There are four key investment areas: bus, light rail, heavy rail, and integration measures and sustainable transport. The NTA Integrated Implementation Plan refers to the delivery of projects in Dublin, such as the DART | There is the potential that developments implemented under this plan could affect European sites within the ZoI of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through this plan have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br>Any projects required to achieve the objectives of this plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire- |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| expansion program and GDA Cycle Network Plan, amongst others. | | Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Smarter Travel a Sustainable Transport Future 2009-2020** Smarter Travel is a government policy document outlining a strategy related to sustainable transport. It sets out actions to reduce overall travel demand, to maximise the efficiency of the transport network, to reduce reliance on fossil fuels, to reduce transport emissions, and to improve accessibility to transport. | There is the potential that developments implemented under Smarter Travel could affect European sites within the ZoI of the Proposed Scheme. Smarter Travel does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through Smarter Travel have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | Any projects required to achieve the objectives of smarter travel must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, Smarter Travel poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **National Biodiversity Action Plan 2017-2021**<br>The National Biodiversity Action Plan sets out 119 targeted actions, underpinned by seven strategic objectives aimed at ensuring that Irelands' biodiversity and ecosystems are conserved and restored, delivering benefits essential for all sectors of society and that Ireland contributes to efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally. The strategic objectives lay out a clear framework for Ireland's national approach to biodiversity. | The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites | No in combination impact<br>As the National Biodiversity Action Plan aims to halt biodiversity loss, no likely significant in combination effects are predicted |
| **River Basin Management Plan 2018-2021**<br>The River Basin Management Plan outlines the measures the State and other sectors will take to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters. | The purpose of this plan is to improve water quality in Ireland's groundwater, rivers, lakes, estuarine and coastal waters therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | are no potential impact pathways by which it could adversely affect the integrity of any European sites. | |
| **National Air Pollution Control Programme (NAPCP) 2021**<br>The National Air Pollution Control Programme (Article 6 of Directive (EU) 2016/2284 – 'the NEC Directive') is the main governance instrument by which EU Member States must ensure that the emission reduction commitments for 2020-2029 and 2030 onwards are met. | The purpose of this programme is to reduce emissions and improve air quality in Ireland therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within its ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **National Marine Planning Framework 2018**<br>This framework is the first formal step towards the preparation of a marine spatial plan for Ireland which will contribute to the effective management of marine activities e.g. fishing, shipping, leisure, aquaculture and renewable energy, and a more sustainable use of our marine resources. | There is the potential that any developments implemented under the National Marine Planning Framework could affect European sites within the ZoI of the Proposed Scheme. The National Marine Planning Framework does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, any future developments implemented through the National Marine Planning Framework have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact<br>Any projects required to achieve the objectives of the National Marine Planning Framework will be implemented by the relevant local or other consenting authorities and statutory bodies and must comply with the statutory planning or other legislative requirements, including those of any relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br>All of these plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in 9.2. This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within the National Marine Planning Framework 2018, and in the county and local level land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the National Marine Planning Framework 2018 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Water Services Strategic Plan 2015**<br><br>Water Services Strategic Plan (WSSP) sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. Its six strategic objectives include: meeting customer expectations; ensuring a safe and reliable water supply; providing effective management of wastewater; protecting and enhancing the environment; supporting social and economic growth; and investing in our future. | Objectives of the WSSP 2015 are implemented through relevant local authorities and statutory bodies i.e. Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (20122-2028;), and Wicklow CDP (2022-2028).<br><br>There is the potential that developments implemented under the WSSP could affect European sites within the ZoI of the Proposed Scheme. The WSSP does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through the WSSP have the potential to lie either within these European sites, or be situated in a location where these European sites may be within their ZoI. | No in combination impact<br><br>Any projects required to achieve the objectives of the Water Services Strategic Plan will be implemented locally by the relevant local authority and must comply with the statutory planning requirements, and those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028)..<br><br>All of these plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2. This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within the NPF, and in the county and local level land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the WSSP 2015 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031**<br>A RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives. One of its main aims is to provide a framework to better manage spatial planning and economic development throughout the Region. | There is the potential that developments implemented under the Regional Spatial & Economic Strategy for the Eastern and Midland Region could affect European sites within the ZoI of the Proposed Scheme. The Regional Spatial & Economic Strategy for the Eastern and Midland Region does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through the Regional Spatial & Economic Strategy for the Eastern and Midland Region have the potential to lie either within those European sites, or be situated in a location where they may be within the ZoI of those European sites. | No in combination impact.<br>Any projects required to achieve the objectives of the Regional Spatial & Economic Strategy for the Eastern and Midland Region will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (20122-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Regional Spatial & Economic Strategy for the Eastern and Midland Region poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **2022 Greater Dublin Area Cycle Network Plan**<br>**(Supersedes the Greater Dublin Area Cycle Network Plan 2013)**<br>The 2022 Greater Dublin Area Cycle Network Plan substantially updated the 2013 plan to strengthen access and local permeability within Dublin and GDA towns, and cycling connectivity between them to accompany the GDA Transport Strategy. | The Proposed Scheme lies partly within the functional area of South Dublin County Development Plan 2022-2028 and largely within the Dublin City Development Plan 2022-2028 Administrative Area and many of the objectives and policies of the Greater Dublin Area Cycle Network Plan 2013, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, | Any projects required to achieve the objectives of the 2022 Greater Dublin Area Cycle Network Plan will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (20122-2028), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA; Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the 2022 Greater Dublin Area Cycle Network Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme.<br>The 2022 Greater Dublin Area Cycle Network Plan has undergone AA and therefore, subject to the mitigation proposed in the NIR being incorporated, there would be no adverse effects on any European sites as a result of implementation of the plan.<br>The 2022 Greater Dublin Area Cycle Network Plan contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2.<br>Considering the protective environmental policies contained within the 2022 Greater Dublin Area Cycle Network Plan, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.<br>Any projects required to achieve the objectives of the 2022 Greater Dublin Area Cycle Network Plan will be implemented locally by the relevant local authority and |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City CDP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the 2022 Greater Dublin Area Cycle Network Plan poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Greater Dublin Area Transport Strategy 2022- 2042**<br><br>The Strategy, which replaces the 2016-2035 strategy, sets out the framework for investment in transport infrastructure and services over the next two | The Proposed Scheme partly lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within the Dublin City Development Plan 2022-2028 Administrative Area, and many of the objectives and policies of the Greater Dublin Area Transport Strategy 2022- 2042, have the potential to act in | No in combination impact.<br><br>The Greater Dublin Area Transport Strategy 2020-2042 has undergone AA and therefore, subject to the mitigation proposed in the NIS being incorporated, there would be no |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| decades to 2042. It has been developed to be consistent with National Planning framework and spatial planning policies and objectives. | combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA; Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | adverse effects on any European sites as a result of implementation of the plan**.**<br><br>The Greater Dublin Area Transport Strategy 2020-2042 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2.<br><br>Considering the protective environmental policies contained within the Greater Dublin Area Transport Strategy 2020-2042, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.<br><br>Any projects required to achieve the objectives of the Greater Dublin Area Transport Strategy 20020-2042 will be implemented locally by the relevant local authority and must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal DP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2022-2028).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br><br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Greater Dublin Area Transport Strategy 2020-2042 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016**<br><br>This study includes the following main elements within the Eastern catchment:<br><br>1. Flood Risk Assessments<br>2. Flood Risk Mapping<br>3. Flood Risk Management Plans | The Eastern Catchment Flood Risk Assessment and Management (CFRAM) Study will ultimately result in the development of catchment- based flood risk management plans. These may propose flood risk management measures which, through various potential impact pathways, could affect the conservation objectives supporting QI/SCI habitats and species of spatially relevant European sites.<br><br>Potential impacts include:<br><br>- Hydrological impacts e.g. reduction in water quality or changes to water flow<br>- Habitat loss / fragmentation | No in combination impact<br><br>CFRAM Studies and their product Flood Risk Management Plans have undergone AA.<br><br>The AA of the CFRAMs considered the potential for impacts from hard engineering solutions and how they might affect hydrological connectivity and hydromorphological supporting conditions for protected habitats and species.<br><br>Any projects required to achieve the objectives of CFRAM must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of any relevant land use plans (Development Plans, Local Area Plans etc.).<br><br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | Considering this, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the CFRAM will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Fingal Development Plan 2017-2023**<br>The Fingal CDP makes reference to residential development, zoning and infrastructure targets / obligations. | The Proposed Scheme partly lies within the functional area of South Dublin County Development Plan 2022-2028 and largely within the Dublin City Development Plan 2022-2028 Administrative Area, however many of the objectives and policies of the Fingal Development Plan 2017-2023, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | No in combination impact.<br>The Fingal Development Plan 2017-2023 was subject to AA screening, and AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Fingal Development Plan 2017-2023 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. These are presented in Section 9.2.<br>Considering the protective environmental policies contained within the Fingal Development Plan 2017-2023, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | • Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | |
| **Fingal Biodiversity Action Plan 2010-2015**<br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Fingal County Council Climate Action Plan 2019-2024**<br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards improving the climate change resilience of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Donabate Local Area Plan 2016**<br><br>The LAP makes reference to phased housing development targets / obligations. | The Proposed Scheme partly lies with the functional area of the South Dublin County Development Plan 2022-2028 and largely within the Dublin City Development Plan 2022-2028 Administrative Area and some of the objectives and policies of the Donabate Local Area Plan 2016, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment | No in combination impact.<br>The Donabate LAP was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Donabate Local Area Plan 2016 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Donabate Local Area Plan 2016, and |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing / spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Rivermeade Local Area Plan 2018**<br>The LAP makes reference to 11 development area targets / obligations and the creation of a link road to connect Rivermeade to Swords. | The Proposed Scheme partly lies within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Development Plan 2022-2028 Administrative Area and some of the objectives and policies of the Rivermeade Local Area Plan 2018, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those | No in combination impact.<br>The Rivermeade LAP 2018 was subject to AA prior to its adoption and therefore, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Rivermeade Local Area Plan 2018 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | Considering the protective environmental policies contained within the Rivermeade Local Area Plan 2018, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Barnhill Local Area Plan 2019**<br>The LAP makes reference to residential development targets / obligations. | The Proposed Scheme partly lies within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Development Plan 2022-2028 Administrative Area, however some of the objectives and policies of the Barnhill Local Area Plan 2019, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites. | No in combination impact<br>The Barnhill Local Area Plan 2019 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Barnhill Local Area Plan 2019 contains objectives and policies to ensure the protection of European sites, |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Barnhill Local Area Plan 2019, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Kinsaley Local Area Plan 2019**<br><br>The LAP makes reference to commercial and residential development targets / obligations. | The Proposed Scheme partly lies within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Development Plan 2022-2028 Administrative Area, and some of the objectives and policies of the Kinsaley Local Area Plan 2019, have the potential to act in combination with the | No in combination impact<br>The Kinsaley Local Area Plan 2019 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br><br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | effects on any European sites as a result of implementation of the LAP.<br><br>The Kinsaley Local Area Plan 2019 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Kinsaley Local Area Plan 2019, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Dublin Airport Local Area Plan 2020**<br><br>The LAP makes reference to airside and landside infrastructure targets / obligations. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within the Dublin City Development Plan 2022-2028 Administrative | No in combination impact<br><br>The Dublin Airport Local Area Plan was subject to AA, prior to its adoption and therefore, subject to any mitigation |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Area, and some of the objectives and policies of the Dublin Airport Local Area Plan 2020, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites:<br><br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | identified as being required, there will be no adverse effects on any European sites as a result of implementation of the LAP.<br><br>The Dublin Airport Local Area Plan 2020 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Dublin Airport Local Area Plan 2020, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| **Dublin City Development Plan 2022-2028**<br><br>The Dublin City CDP makes reference to improvement of the public transport network and facilities for pedestrians and cyclists and targets / obligations to create strategic development and regeneration areas. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area and many of the objectives and policies therein, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull | No in combination impact<br><br>The Dublin City Development Plan 2022 - 2028 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br><br>The Dublin City Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Dublin City Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Island SPA and South Dublin Bay and River Tolka Estuary SPA); | |
| **Dublin City Biodiversity Action Plan 2021-2025**<br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Dublin City Council Climate Action Plan 2019-2024**<br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | This plan will contribute towards improving the climate change resilience of the European sites within their ZoI. While by and large the majority of the measures proposed in the plan will have a positive or supportive function for European sites, some of the proposals, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream | No in combination impact<br>The plan is intended to improve the quality of the environment within its ZoI.<br>Any projects required to achieve the objectives of plan will be implemented by the relevant local or other consenting authorities and must comply with the statutory planning or other legislative requirements, including those of any relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the ZoI of the Proposed Scheme, the overarching land use plans are Fingal CDP (2017-2023), Dublin City DP (2022-2028), South Dublin CDP (2022-2028), Dún Laoghaire-Rathdown CDP (2022-202;), and Wicklow CDP (2022-2028).<br>All of these land use plans contain objectives and policies to ensure the protection of European sites from any projects proposed within the plan area. These are presented in Section 9.2.<br>This assessment has identified those land use plans that have the potential to act in combination with the Proposed Scheme to affect European sites, given their |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | spatial jurisdiction (see discussions on the relevant land use plans in the sections below).<br>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Dublin City Council Climate Action Plan 2019-2024 poses no identifiable risk of resulting in adverse effects on the integrity of any European sites in combination with the Proposed Scheme. |
| **Clongriffin-Belmayne Local Area Plan 2012-2018**<br>The LAP makes reference to commercial and residential development targets / obligations, and targets associated with interconnecting walking, cycling and public transport routes. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area and some of the objectives and policies of the Clongriffin-Belmayne Local Area Plan 2012-2018, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, | No in combination impact<br>The Clongriffin-Belmayne Local Area Plan 2012-2018 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Clongriffin-Belmayne Local Area Plan 2012-2018 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Clongriffin-Belmayne Local Area Plan 2012-2018, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA) | |
| **Naas Road Local Area Plan 2013-2023**<br>This LAP makes reference to the creation of four strategic development regeneration areas and targets / obligations associated making improvements to pedestrian, cycling and public transport infrastructure. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area and some of the objectives and policies of the Naas Road Local Area Plan 2013-2023, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• 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, | No in combination impact<br>The Naas Road Local Area Plan 2013-2023 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Naas Road Local Area Plan 2013-2023 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Naas Road Local Area Plan 2013-2023, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species(for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | |
| **South Dublin County Development Plan 2022-2028**<br>The South Dublin CDP makes reference to commercial and residential development (including Adamstown and Clonburris SDZs), and infrastructure targets / obligations aimed at increasing connectivity between pedestrian and cycle routes and public transport. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the South Dublin County Development Plan 2022-2028, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• 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, | No in combination impact<br>The South Dublin County Development Plan 2022-2028 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified as being required, there will be no adverse effects on any European sites as a result of implementation of South Dublin County Council Development.<br>The South Dublin County Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the South Dublin County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | |
| **Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation**<br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br>This draft plan (once adopted) will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **South Dublin County Council Climate Change Action Plan 2019-2024**<br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Tallaght Town Centre Local Area Plan 2020**<br>This LAP makes reference to residential and mixed-use development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Tallaght Town Centre Local Area Plan 2020, have the potential to act in combination with the Proposed | No in combination impact<br>The Tallaght Town Centre Local Area Plan 2020 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Scheme, through a variety of potential impact pathways, to affect European sites.<br><br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br><br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br><br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | effects on any European sites as a result of implementation of the LAP.<br><br>The Tallaght Town Centre Local Area Plan 2020 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br><br>Considering the protective environmental policies contained within the Tallaght Town Centre Local Area Plan 2020, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Dún Laoghaire- Rathdown County Development Plan 2022-2028;**<br><br>The Dún Laoghaire- Rathdown CDP makes reference to commercial and residential development (including Cherrywood SDZ) targets / obligations, | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Dún Laoghaire- Rathdown Development Plan 2016-2022, have the potential to act in | No in combination impact<br><br>The Dún Laoghaire- Rathdown County Development Plan 2022-2028 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| and targets associated with providing suitable community infrastructure. | combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and | be no adverse effects on any European sites as a result of implementation of Dún Laoghaire- Rathdown CDP.<br>The Dún Laoghaire- Rathdown County Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Dún Laoghaire- Rathdown County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Dún Laoghaire- Rathdown CDP will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |
| **Dún Laoghaire- Rathdown Biodiversity Action Plan 2021-2025**<br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | | |
| **Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024**<br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination impact<br>No potential for in combination impacts with the proposed scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Stillorgan Local Area Plan 2018-2024**<br>This LAP makes reference to the redevelopment of five key sites, commercial and residential development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Stillorgan Local Area Plan 2018-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination impact<br>The Stillorgan Local Area Plan 2018-2024 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Stillorgan Local Area Plan 2018-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Stillorgan Local Area Plan 2018-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | |
| **Woodbrook-Shanganagh Local Area Plan 2017-2024**<br>This LAP makes reference to residential development targets / obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Woodbrook-Shanganagh Local Area Plan 2017-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination impact<br>The Woodbrook-Shanganagh Local Area Plan 2017-2024 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of the plan.<br>The Woodbrook-Shanganagh Local Area Plan 2017-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Woodbrook-Shanganagh Local Area Plan 2017-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); | |
| **Wicklow County Development Plan 2022-2028**<br>The Wicklow CDP makes reference to commercial and residential development targets / obligations, and targets associated with facilitating an extension of the LUAS and rail services, and facilitating the development of cycleways and walkways throughout the county. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Wicklow County Development Plan 2022-2028, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination impact<br>The Wicklow County Development Plan 2022-2028 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation of Wicklow CDP.<br>The Wicklow County Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Wicklow County Development Plan 2022-2028, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Wicklow CDP will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites. |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | |
| **Wicklow Biodiversity Plan 2010-2015**<br>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their ZoI. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the ecological environment within its ZoI. |
| **Wicklow County Council Climate Change Adaptation Strategy 2019**<br>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Wicklow. | No, there are no potential impact pathways to European sites.<br>This plan will contribute towards improving the climate change resilience. There are no potential impact pathways by which it could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination impact<br>No potential for in combination impacts with the Proposed Scheme as such a plan is intended to improve the quality of the environment within its ZoI. |
| **Bray Municipal District Local Area Plan 2018-2024**<br>This LAP makes reference to commercial and residential development targets / obligations, including the two key development areas of Fassaroe and the former Bray Golf Club, and targets associated with improving roads and transport infrastructure, and providing pedestrian, cycling and public transport routes. | The Proposed Scheme lies partly within the functional area of the South Dublin County Development Plan 2022-2028 and largely within Dublin City Administrative Area, however some of the objectives and policies of the Bray Municipal District Local Area Plan 2018-2024, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.<br>As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites including:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water | No in combination impact<br>The Bray Municipal District Local Area Plan 2018-2024 was subject to AA, prior to its adoption and therefore, subject to any mitigation identified, there will be no adverse effects on any European sites as a result of implementation the LAP.<br>The Bray Municipal District Local Area Plan 2018-2024 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area.<br>Considering the protective environmental policies contained within the Bray Municipal District Local Area Plan 2018-2024, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the |

| Plan Description | Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites | Will the Plan / Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites |
|---|---|---|
| | quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); | Proposed Scheme to adversely affect the integrity of any European sites. |

***Table 32 In Combination Assessment of Major Projects***

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP01 | Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7/M9) to provide an additional lane in each direction | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>As these works are completed and there is no physical overlap between the Proposed Scheme and this project, there is limited potential for in combination effects to arise.<br>The potential for in combination effects is habitat degradation/effects on QI/SCI species as a result of:<br>• hydrological impacts; for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA. | No in combination effect.<br>The proposed M7 widening works were subject to consent, which was required to comply with requirements of the EIA and Habitats Directive as relevant. In granting consent it was necessary to determine that the project would not adversely affect any European sites, including arising from any impacts on water quality. Considering that alone, neither the Proposed Scheme nor the M7 widening works, will adversely affect the integrity of any European sites, the lack of any overlap either physically or in terms of the time of construction works, and the range of mitigation measures included in the Proposed Scheme to avoid significant impacts on water quality which is the only pathway with potential for in combination effects, the two projects will not generate any in combination effects which could adversely affect the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right nor in combination with other projects, including the proposed M7 widening works and has included mitigation in that regard to prevent any such adverse effects. |
| MP02 | Enhancements of the N2/M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non- | There is no physical overlap between the Proposed Scheme and this project and there are no potential | No in combination effect. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles | impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | |
| MP03 | N3 Castaheany Interchange Upgrade | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the only potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South | No in combination effect.<br>The proposed N3 Castaheany Interchange Upgrade project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. Considering the lack of physical overlap between the Proposed Scheme and the N3 Castaheany Interchange Upgrade project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed N3 Castaheany Interchange Upgrade and has included mitigation in that regard to prevent any such adverse effects. |
| MP04 | 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 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the only potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Reconfiguration of the N7 from its junction with the M50 to Naas project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | proposed Reconfiguration of the N7 from its junction with the M50 to Naas, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration of the N7 from its junction with the M50 to Naas and has included mitigation in that regard to prevent any such adverse effects. |
| MP05 | N3–N4: Barnhill to Leixlip Interchange | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in | No in combination effect.<br>The proposed N3-N4 Barnhill to Leixlip Interchange project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed reconfiguration works will be subject to planning consent, including |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the reconfiguration works it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and proposed N3-N4 Barnhill to Leixlip Interchange project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed N3-N4 Barnhill to Leixlip Interchange and has included mitigation in that regard to prevent any such adverse effects. |
| MP06 | Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those | No in combination effect.<br>The proposed the Reconfiguration of the N4 from its junction with the M50 to Leixlip must |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the reconfiguration works it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Reconfiguration of the N4 from its junction with the M50 to Leixlip, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration of the N4 from its junction with the M50 to Leixlip and has included mitigation in that regard to prevent any such adverse effects. |
| MP07 | Clonburris SDZ roads development | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>There is no physical overlap between the Proposed Scheme and this project and the only potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Clonburris SDZ roads development project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Clonburris SDZ roads development, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and | the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clonburris SDZ roads development and has included mitigation in that regard to prevent any such adverse effects. |
| MP08 | DART+ Programme West | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed DART + Programme West project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART + Programme West will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the DART + Programme West it will be necessary to |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme West and has included mitigation in that regard to prevent any such adverse effects. |
| MP09 | Porterstown Distributor Link Road | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of: | No in combination effect.<br>The proposed Porterstown Distributor Link Road project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the link road, it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Porterstown Distributor Link Road, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Porterstown Distributor Link Road and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP10 | Widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee), plus related junction and necessary changes to the existing national road network | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | No in combination effect.<br>The proposed N3 widening project between Junction 1 (M50) and Junction 4 (Clonee) must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed N3 widening will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the N3 widening it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed N3 widening project between Junction 1 (M50) and Junction 4 (Clonee), the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee) and has included mitigation in that regard to prevent any such adverse effects. |
| MP11 | Lucan LUAS | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Lucan LUAS project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Lucan LUAS will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Lucan LUAS, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | proposed Lucan LUAS project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Lucan LUAS project and has included mitigation in that regard to prevent any such adverse effects. |
| MP12 | DART+ Programme South West | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed DART + South West project must comply with statutory licencing and planning requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART + South West must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant development Plan. This land use plan contains objectives and |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the DART + South West it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed DART+ Programme South West project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme South West and has included mitigation in |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | that regard to prevent any such adverse effects. |
| MP13 | Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and | No in combination effect.<br>The proposed M1 motorway upgrades project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites and surface water quality from any projects proposed within the plan area.<br>The proposed M1 motorway upgrades will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the M1 motorway upgrades it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed M1 motorway upgrades project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA). | impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Junction upgrades and other capacity improvements on the M1 motorway and has included mitigation in that regard to prevent any such adverse effects. |
| MP14 | Finglas LUAS (Green Line extension Broombridge to Finglas) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, | No in combination effect.<br>The proposed Finglas LUAS (Green Line extension Broombridge to Finglas) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Finglas LUAS extension will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Finglas LUAS extension project it will be necessary to determine that the project will not result in adverse effects on the integrity of any |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Finglas LUAS project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Finglas LUAS extension and has included mitigation in that regard to prevent any such adverse effects. |
| MP15 | DART+ Tunnel Element (Kildare Line to Northern Line) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of: | No in combination effect.<br>The proposed DART + Tunnel element (Kildare Line to Northern Line) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | policies to ensure the protection of European sites.<br>The proposed DART + Tunnel element will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the DART + Tunnel element (Kildare Line to Northern Line) project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and proposed DART + Tunnel element (Kildare Line to Northern Line) project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed DART+ Tunnel Element (Kildare Line to Northern |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | Line) project and has included mitigation in that regard to prevent any such adverse effects. |
| MP16 | Potential Metro South alignment: SW option | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and | No in combination effect.<br>The proposed Metro South alignment SW option must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Metro South alignment will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Metro South alignment it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the potential Metro South alignment: SW option , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA). | will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Potential Metro South alignment: SW option and has included mitigation in that regard to prevent any such adverse effects. |
| MP17 | LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>As these works are completed and there is no physical overlap between the Proposed Scheme and this project, there is limited potential for in combination effects to arise.<br>The main potential for in combination effects is:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, | No in combination effect.<br>The proposed LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 enhancements works were subject to consent, which was required to comply with requirements of the EIA and Habitats Directive as relevant. In granting consent it was necessary to determine that the project would not adversely affect any European sites, including arising from any impacts on water quality. Considering that alone, neither the Proposed Scheme nor the LUAS enhancements works, will adversely affect the integrity of any European sites, the lack of any overlap either physically or in terms of the time of construction works, and the range of mitigation measures included in the Proposed Scheme to avoid significant impacts on water quality which is the only pathway with potential for in combination effects, the two projects will not generate any in combination effects which could |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA). | adversely affect the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1 project and has included mitigation in that regard to prevent any such adverse effects |
| MP18 | Oldtown-Mooretown Western Distributor Link Road | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Oldtown-Mooretown Western Distributor Link Road project must comply with all planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | proposed Oldtown-Mooretown Western Distributor Link Road, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Oldtown-Mooretown Western Distributor Link Road and has included mitigation in that regard to prevent any such adverse effects. |
| MP19 | Potential Metro South alignment: Charlemont to Sandyford | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed Metro South alignment - Charlemont to Sandyford project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Metro South alignment will be subject to planning consent, including |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Metro South alignment, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Metro South alignment - Charlemont to Sandyford project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Metro South alignment: Charlemont to Sandyford and has included mitigation in that regard to prevent any such adverse effects |
| MP20 | Poolbeg LUAS | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European | No in combination effect. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed Poolbeg LUAS project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed LUAS will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the LUAS it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Poolbeg LUAS and has |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | included mitigation in that regard to prevent any such adverse effects. |
| MP21 | Leopardstown Link Road Phase 2 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South | No in combination effect.<br>The proposed link road project must comply with all planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Leopardstown Link Road Phase 2 project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Leopardstown Link Road Phase 2and has included mitigation in that regard to prevent any such adverse effects. |
| MP22 | 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 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed development of a road link connecting the southern end of the Dublin Port Tunnel to the South Port area, project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the link road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the proposed development of a road link connecting from the southern end of the Dublin Port Tunnel to the South Port area, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the development of a road link connecting the southern end of the Dublin Port Tunnel to the South Port area and has included mitigation in that regard to prevent any such adverse effects. |
| MP23 | Poolbeg SDZ roads development | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of: | No in combination effect.<br>The proposed Poolbeg SDZ roads development project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed SDZ roads development will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the SDZ roads development it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Poolbeg SDZ roads development project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Poolbeg SDZ roads development project and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP24 | Glenamuck District Distributor Road | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA). | No in combination effect.<br>The proposed Glenamuck District Distributor Road project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Glenamuck District Distributor Road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Glenamuck District Distributor Road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Glenamuck District Distributor Road project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Glenamuck District Distributor Road project and has included mitigation in that regard to prevent any such adverse effects. |
| MP25 | DART+ Programme Coastal North | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed DART+ Programme Coastal North project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART+ Programme Coastal North will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for DART+ Programme Coastal North it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br><br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the DART+ Programme Coastal North and has included mitigation in that regard to prevent any such adverse effects. |
| MP26 | Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) plus related junction and other changes | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed M50 widening will be subject to planning consent, including preparation of |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the M50 widening it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11), the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP27 | Cherrywood SDZ roads development | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination effect. |
| MP28 | DART+ Coastal South Project | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive | No in combination effect.<br>The proposed DART+ Coastal South Project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed DART+ Coastal South Project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for DART+ Coastal South Project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the DART+ Coastal South Project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed DART+ Coastal South Project and has included mitigation in that regard to prevent any such adverse effects. |
| MP29 | R126 Donabate Relief Road: R132 to Portrane Demesne | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary | No in combination effect.<br>The proposed relief road project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed relief road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the relief road it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the R126 Donabate Relief Road: R132 to Portrane Demesne project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the R126 Donabate Relief Road: R132 to Portrane Demesne and has included mitigation in that regard to prevent any such adverse effects. |
| MP30 | Extension of LUAS Green Line to Bray | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination effect. |
| MP31 | Capacity enhancement and reconfiguration of the M11/N11 from Junction 4 (M50) to Junction 14 (Ashford) inclusive of ancillary and associated road schemes, to provide additional lanes and upgraded junctions, plus service roads and linkages to cater for lo | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme. | No in combination effect. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| MP32 | MetroLink | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | No in combination effect.<br>The proposed Metrolink project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed MetroLink will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for MetroLink it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | its own right, nor in combination with other projects, including the MetroLink project and has included mitigation in that regard to prevent any such adverse effects. |
| MP33 | Greater Dublin Drainage (GDD) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The only potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA; Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South | No in combination effect.<br>The proposed Greater Dublin Drainage project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant Development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Greater Dublin Drainage project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Greater Dublin Drainage Project and has included mitigation in that regard to prevent any such adverse effects. |
| MP34 | Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, | No in combination effect.<br>Proposals arising out of the cycle network plan must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposals arising out of the cycle network plan will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for proposals arising out of the cycle network plan it will be necessary to determine that they will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Greater Dublin Area Cycle Network Plan elements and has included mitigation in that regard to prevent any such adverse effects. |
| MP35 | Dublin Array - offshore windfarm | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed Dublin Array - offshore windfarm project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Dublin Array - offshore windfarm project will be subject to planning consent, including preparation of an EIAR and |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Dublin Array - offshore windfarm project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Dublin Array - offshore windfarm project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Dublin Array - offshore windfarm and has included mitigation in that regard to prevent any such adverse effects. |
| MP36 | Southern Port Access Route (SPAR): proposed 1.6km (SPAR) includes an opening bridge across the Liffey east of the existing Tom Clarke Bridge. It will be a private road which will | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in | No in combination effect.<br>The proposed Southern Port Access Route (SPAR) project must comply with all |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | take HGV traffic destined to/from the port off the local public road network. It will also allow access for other HGV traffic such as to the Covanta Waste-to-Energy plant. The SPAR will include an active travel corridor open to the public. | combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed SPAR will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for SPAR it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed SPAR project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | projects, including the proposed Southern Port Access Route (SPAR and has included mitigation in that regard to prevent any such adverse effects. |
| MP37 | Snugborough Interchange Upgrade | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive | No in combination effect.<br>The proposed Snugborough interchange upgrade project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed interchange will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Snugborough interchange upgrade it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed interchange upgrade project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Snugborough interchange upgrade and has included mitigation in that regard to prevent any such adverse effects. |
| 303678 | Air insulated switchgear 110kV transmission substation. Platin, Duleek | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species). | No in combination effect. |
| 304799 | Construction of a new distributor road and junction to the southwest of Kells town centre. | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species). | No in combination effect. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| JA0040 | Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | No in combination effect.<br>The proposed Dublin Mountain Visitors Centre project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the Dublin Mountain Visitors Centre, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Dublin Mountain Visitors Centre project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Dublin Mountain Visitors Centre and has included mitigation in that regard to prevent any such adverse effects. |
| 304624 | FCC/12/0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Broadmeadow Way Greenway must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project has been subject to planning consent, including preparation of an EIAR and Natura Impact Statement.<br>In granting permission for the project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the consented Broadmeadow Way Greenway project, the environmental protection |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).; | policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the consented Broadmeadow Way Greenway and has included mitigation in that regard to prevent any such adverse effects. |
| 307073 | Alterations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale/Belcamp | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head | No in combination effect.<br>The proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations must comply with all applicable planning and environmental approval requirement and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | In granting permission for the proposed project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed alterations to a permitted double circuit 110kV electricity transmission line development between substations and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| 303249 | 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 | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species). | No in combination effect. |
| 304888 | 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. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Dublin Port project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and this project at Dublin Port, the environmental |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed developments around Dublin Port and has included mitigation in that regard to prevent any such adverse effects. |
| 306583 | A residential development with ancillary commercial uses (retail unit, café and crèche) practically comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed residential in named townlands around Shankill project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed residential development in named townlands around Shankill and has included mitigation in that regard to prevent any such adverse effects. |
| 307352 | 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. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. | No in combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed development for Brexit Infrastructure at Dublin Port, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed development for Brexit Infrastructure at Dublin Port and has included mitigation in |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | that regard to prevent any such adverse effects. |
| 306834 | 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. | There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species). | No in combination effect. |
| 307296 | 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 | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination effect.<br>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the lack of physical overlap between the Proposed Scheme and the proposed 110kV Gas Insulated Switchgear (GIS) substation and underground cable project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed 110kV Gas Insulated Switchgear (GIS) substation and underground cable and has included mitigation in that regard to prevent any such adverse effects. |
| 306725 | 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. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of: | No in combination effect.<br>The proposed River Poddle flood alleviation works must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed River Poddle flood alleviation works, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed River Poddle flood alleviation works and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | Baldoyle Aviation Fuel Line | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | No in combination effect.<br>The proposed Aviation Fuel Pipeline project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The Aviation Fuel Pipeline was subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement,<br>In granting permission for the proposed project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Aviation Fuel Line project and, considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Aviation Fuel Pipeline and has included mitigation in that regard to prevent any such adverse effects. |
| 311315 | Park development project at the Racecourse Park | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide | No in combination effect.<br>The proposed Park Development project at Racecourse Park must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | proposed Park Development project at Racecourse Park, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Park development project at Racecourse Park and has included mitigation in that regard to prevent any such adverse effects. |
| | 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation | The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination effect.<br>The proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the development of 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | Increase the capacity of the Dublin Waste to Energy Facility from 600,000 tonnes per annum to 690,000 tonnes per annum | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | No in combination effect.<br>The proposed project to increase the capacity of the Dublin Waste to Energy Facility must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposal to increase the capacity of the Dublin Waste to Energy, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the increase in capacity of the Dublin Waste to Energy and has included mitigation in that regard to prevent any such adverse effects. |
| | Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination effect.<br>The proposed project to develop a Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clutterland 110kV GIS substation building and 2 underground single circuit transmission lines and has included mitigation in that regard to prevent any such adverse effects. |
| | 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. | No in combination effect.<br>The proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | projects, including the development of 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation and has included mitigation in that regard to prevent any such adverse effects. |
| | Provision of two 110kV transmission lines connecting Coolderrig 110kV GIS substation to Grand Castle – Kilmahud circuits. | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream | No in combination effect.<br>The proposed provision of two 110kv transmission lines connecting Coolderrig 110KV GIS substation to Grange Castle - Kilmahud circuit must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report / Natura Impact Statement, if required.<br>In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the proposed project to provide two 110kv transmission lines connecting Coolderrig |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | 110KV GIS substation to Grange Castle - Kilmahud circuit, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed provision of two 110kv transmission lines connecting Coolderrig 110KV GIS substation to Grange Castle -Kilmahud and has included mitigation in that regard to prevent any such adverse effects. |
| - | Clongriffin to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts | No in combination effect.<br>The proposed Clongriffin to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.) | The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Clongriffin to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Swords to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those | No in combination effect.<br>The proposed Swords to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Swords to City Centre Core Bus Corridor Scheme and |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | has included mitigation in that regard to prevent any such adverse effects. |
| - | Ballymun/Finglas to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and | No in combination effect.<br>The proposed Ballymun/Finglas to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Ballymun/Finglas to City Centre Core Bus Corridor Scheme , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA). | impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Ballymun/Finglas to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Blanchardstown to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, | No in combination effect.<br>The proposed Blanchardstown to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Blanchardstown to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Blanchardstown to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Lucan to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. | No in combination effect.<br>The proposed Lucan to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA); and<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Lucan to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Lucan to City Centre Core Bus Corridor Scheme and has |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | included mitigation in that regard to prevent any such adverse effects. |
| - | Liffey Valley to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and | No in combination effect.<br>The proposed Liffey Valley to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Liffey Valley to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA). | the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Liffey Valley to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Tallaght/Clondalkin to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination effect.<br>The proposed Tallaght/Clondalkin to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Tallaght/Clondalkin to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Tallaght/Clondalkin to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of: | No in combination effect.<br>The proposed Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | • Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme and has included |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | | mitigation in that regard to prevent any such adverse effects. |
| - | Bray to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and | No in combination effect.<br>The proposed Bray to City Centre Core Bus Corridor Scheme must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the lack of physical overlap between the Proposed Scheme and the Bray to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | South Dublin Bay and River Tolka Estuary SPA). | European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Bray to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| - | Ringsend to City Centre Core Bus Corridor Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, | No in combination effect.<br>The proposed Ringsend to City Centre Core Bus Corridor Scheme must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Bus Corridor Scheme will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Ringsend to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects. |
| | SHDs<br>(*Impact dependent on proximity to Proposed Scheme*) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• 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 | No in combination effect.<br>Proposed SHD projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed SHD projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for proposed SHD projects it will be necessary to determine that the project will not result in adverse |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed SHD Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed SHD schemes and has included mitigation in that regard to prevent any such adverse effects. |
| | LRDs<br>(*Impact dependent on proximity to Proposed Scheme*) | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts | No in combination effect.<br>Proposed LRD projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed LRD projects will be subject to planning consent, including preparation of an |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for proposed LRD projects it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed LRD Schemes will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed SHD schemes and has included mitigation in that regard to prevent any such adverse effects. |
| SD228/0008 | Wellington Lane Walking and Cycling Scheme | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some | No in combination effect.<br>The proposed Wellington Lane Walking and Cycling Scheme project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation / effects on Q / 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, Wicklow Mountains SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Disturbance and displacement impacts on QI species as a result of a temporary / permanent increase in noise levels and human presence (for example *ex-situ* inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA); | Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>The proposed Wellington Lane Walking and Cycling Scheme will be subject to Part 8 planning consent, including AA Screening Report.<br>In granting permission for the proposed Wellington Lane Walking and Cycling Scheme it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.<br>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Wellington Lane Walking and Cyclin Scheme and has included mitigation in that regard to prevent any such adverse effects. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | Irish Water Projects<br>(*Impact dependent on proximity to Proposed Scheme*)<br>Larger scale Irish Water infrastructure projects are described separately under major projects | As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.<br>The potential for in combination effects could be as a result of:<br>• Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,<br>• Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North | No in combination effect.<br>Proposed Irish Water projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.<br>Proposed Irish Water projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.<br>In granting permission for proposed Irish Water projects it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.<br>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. |

| Application Reference | Applicant for 'Other Development' and Brief Description | Potential for in combination effect | Conclusion regarding in combination effect<br>Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites? |
|---|---|---|---|
| | | Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). | The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including Irish Water Projects and has included mitigation in that regard to prevent any such adverse effects. |

### 9.2 Plan Level Environmental Protection Policies and Objectives

360 This section lists the overarching plan level environmental protection policies from the following plans; Fingal County Development Plan 2017 – 2023, Dublin City Development Plan 2022 – 2028, South Dublin County Development Plan 2022 – 2028, Wicklow County Development Pan 2022 – 2028 and Dún Laoghaire-Rathdown County Development Plan 2022 – 2028.

361 The Proposed Scheme is compliant with all of the plan level biodiversity protection policies and objectives described above, including those within the Fingal County Development Plan 2017 – 2023, the Dublin City Development Plan 2022 – 2028, the South Dublin County Development Plan 2022 – 2028, the Wicklow County Development Pan 2022 – 2028 and the Dún Laoghaire-Rathdown County Development Plan 2022 – 2028. Furthermore, the Proposed Scheme will not prevent the achievement of any of these plan level biodiversity protection policies and objectives across the identified potential impact pathways.

**Fingal County Development Plan 2017 – 2023**

362 **Objective NH15**: Strictly protect areas designated or proposed to be designated as Natura 2000 sites (i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); also known as European sites) including any areas that may be proposed for designation or designated during the period of this Plan.

363 **Objective NH16**: Protect the ecological integrity of proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, and Habitat Directive Annex I sites.

364 **Objective NH17**: Ensure that development does not have a significant adverse impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Habitat Directive Annex I sites and Annex II species contained therein, and on rare and threatened species including those protected by law and their habitats.

**Dublin City Development Plan 2022 - 2028**

365 **Policy GI10:** To adequately protect flora and fauna (under the EU Habitats and Birds Directives, the Wildlife Acts 1976 (as amended), the Fisheries Acts 1959 (as amended) and the Flora (Protection) Order 2022 S.I No. 235 of 2022), wherever they occur within Dublin City, or have been identified as supporting the favourable conservation condition of any European sites.

366 **Policy GI13:** To ensure the protection, conservation and enhancement of all areas of ecological importance for protected species, and especially those listed in the EU Birds and Habitats Directives, including those identified as supporting the favourable conservation condition of any European sites, in accordance with development standards set out in this plan.

367 **Policy GI31:** To support the improvement of the ecological status of all rivers / waterbodies within the administrative area of Dublin City Council and those rivers identified in accordance with the River Basin Management Plan 2018 – 2021 and the next management plan to be produced under the 3rd river basin planning cycle (2022-2027), as required under the EU WFD (see Chapter 9, Section 9.5.2 Urban Watercourses and Water Quality).

**South Dublin County Development Plan 2022 - 2028**

368 **GI2 Objective 1:** To reduce fragmentation and enhance South Dublin County's GI network by strengthening ecological links between urban areas, Natura 2000 sites, proposed Natural Heritage Areas, parks and open spaces and the wider regional network by connecting all new developments into the wider GI Network.

369 **NCBH3 Natura 2000 Sites:** Conserve and protect Natura 2000 sites and achieve and maintain favourable conservation status for habitats and species that are considered to be at risk through the protection of the Natura 2000 network from any plans or projects that are likely to have a significant effect on their coherence or integrity.

370 **NCBH3 Objective 1:** To prevent development and activities that would adversely affect the integrity of any Natura 2000 site located within or adjacent to the County and promote the favourable conservation status of the habitats and species integral to these sites.

371 **NCBH3 Objective 3:** To ensure that planning permission will only be granted for a development proposal that, either individually or in combination with existing and / or proposed plans or projects, will not have a significant adverse effect on a European Site, or where such a development proposal is likely or might have such a significant adverse effect (either alone or in combination), the planning authority will, as required by law, carry out an appropriate assessment as per requirements of Article 6(3) of the Habitats Directive 92 / 43 / EEC of the 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, as transposed into Irish legislation. Only after having ascertained that the development proposal will not adversely affect the integrity of any European site, will the planning authority agree to the development and impose appropriate mitigation measures in the form of planning conditions. A development proposal which could adversely affect the integrity of a European site may only be permitted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

**Wicklow County Development Plan 2022 - 2028**

372 **CPO 17.4:** To contribute, as appropriate, towards the protection of designated ecological sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs); Wildlife Sites (including proposed Natural Heritage Areas); Salmonid Waters; Flora Protection Order sites; Wildfowl Sanctuaries (see S.I. 192 of 1979); Freshwater Pearl Mussel catchments; and Tree Preservation Orders (TPOs).

373 To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including but not limited to the following and any updated/superseding documents:

- EU Directives, including the Habitats Directive (92/43/EEC, as amended), the Birds Directive (2009/147/EC), the Environmental Liability Directive (2004/35/EC), the Environmental Impact Assessment Directive (2011/92/EU, as amended), the Water Framework Directive (2000/60/EC), EU Groundwater Directive (2006/118/EC) and the Strategic Environmental Assessment Directive (2001/42/EC); EU 'Guidance on integrating ecosystems and their services into decision-making' (European Commission 2019); and,
- National legislation, including the Wildlife Acts 1976 and 2010 (as amended), European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018, the Wildlife (Amendment) Act 2000, the European Union (Water Policy) Regulations 2003 (as amended), the Planning and Development Act 2000 (as amended), the European Communities (Birds and Natural Habitats) Regulations 2011 (SI No. 477 of 2011), the European Communities (Environmental Liability) Regulations 2008 (as amended) and the Flora Protection order 2015.

374 **CPO 17.5:** Projects giving rise to adverse effects on the integrity of European sites (cumulatively, directly or indirectly) arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall not be permitted on the basis of this plan[24].

375 **CPO 17.6:** Ensure that development proposals, contribute as appropriate towards the protection and where possible enhancement of the ecological coherence of the European Site network and encourage the retention and management of landscape features that are of major importance for wild fauna and flora as per Article 10 of the EU Habitats directive. All projects and plans arising from this Plan will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive.

376 **CPO 17.8:** Ensure ecological impact assessment is carried out for any proposed development likely to have a significant impact on proposed Natural Heritage Areas (pNHAs), Natural Heritage Areas (NHAs), Statutory Nature Reserves, Refuges for Fauna, Annex I habitats, or rare and threatened species including those

[24] Except as provided for in Article 6(4) of the Habitats Directive, viz. there must be: a) no alternative solution available, b) imperative reasons of overriding public interest for the project to proceed; and c) adequate compensatory measures in place.

species protected by law and their habitats. Ensure appropriate avoidance and mitigation measures are incorporated into development proposals as part of any ecological impact assessment.

377 **CPO 17.24:** To ensure and support the implementation of the EU Groundwater Directive and the EU Water Framework Directive and associated River Basin and Sub-Basin Management Plans and Blue Dot Catchment Programme, to ensure the protection, improvement and sustainable use of all waters in the County, including rivers, lakes, ground water, coastal and estuarine waters, and to restrict development likely to lead to a deterioration in water quality. The Council will also have cognisance of, where relevant, the EU's Common Implementation Strategy Guidance Document No. 20 and 36 which provide guidance on exemptions to the environmental objectives of the Water Framework Directive.

**Dún Laoghaire-Rathdown County Development Plan 2022 - 2028**

378 **Policy Objective GIB18:** Protection of Natural Heritage and the Environment*. It is a Policy Objective to protect and conserve the environment including, in particular, the natural heritage of the County and to conserve and manage Nationally and Internationally important and EU designated sites - such as Special Protection Areas (SPAs), Special Areas of Conservations (SACs), proposed Natural Heritage Areas (pNHAs) and Ramsar sites (wetlands) - as well as non-designated areas of high nature conservation value known as locally important areas which also serve as 'Stepping Stones' for the purposes of Article 10 of the Habitats Directive.

379 **Policy GIB19:** Habitats Directive. It is a Policy Objective to ensure the protection of natural heritage and biodiversity, including European Sites that form part of the Natura 2000 network, in accordance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines.

380 **Policy GIB21:** Designated Sites. It is a Policy Objective to protect and preserve areas designated as proposed Natural Heritage Areas, Special Areas of Conservation, and Special Protection Areas. It is Council policy to promote the maintenance and as appropriate, delivery of 'favourable' conservation status of habitats and species within these areas.

### 9.3 Conclusion of In Combination Assessment

381 The Proposed Scheme will not affect the integrity of any European sites including those within its ZoI. It will not result in the loss or fragmentation of any QI habitats, or habitats supporting populations of QI / SCI species, in (or associated with) any European sites, nor will it degrade any such habitats or affect QI / SCI species as a result of hydrological or hydrogeological impacts (quality or quantity), air quality impacts or introducing / spreading non-native invasive plant species.

382 The in combination assessment has concluded that there is no potential for adverse effects on the integrity of any European sites including those within its ZoI, to arise as a consequence of the Proposed Scheme in-combination with any other plans or projects, as in consideration of the mitigation measures detailed in-Section 7.1.4 of this NIS, no adverse effects on European site integrity will arise from the implementation of the Proposed Scheme.

383 The implementation of, and adherence to, the policies and objectives set out in Section 9.2 will ensure the protection of European sites across all identified potential impact pathways, and will include the requirement for any future project to undergo Screening for AA and / or AA, as appropriate.

384 As the Proposed Scheme will not affect the integrity of European sites within the ZoI of the Proposed Scheme, and given the protection afforded to European sites under the overarching land use plans, it has been concluded that there will be no adverse effects on the integrity of any European sites to arise as a consequence of the Proposed Scheme acting in combination with any other plans or projects.

385 Table 31 and Table 32 present the results of a pairwise assessment of the Proposed Scheme in combination with all of those projects and plans. This assessment found that there will be no adverse effects on the integrity of any European sites as a consequence of the Proposed Scheme acting in combination with each of these plans and projects.

386 Furthermore, for the same reasons, there will be no adverse effects on the integrity of any European sites as a consequence of the Proposed Scheme acting in combination with any, some or indeed all taken together, of these plans or projects.

387 Therefore, the Proposed Scheme will not adversely affect the integrity of any European sites, either alone or in combination with any other plans or projects. No additional mitigation measures are necessary or required following this updated assessment.

## 10 NIS Conclusion

388 This NIS has examined and analysed, in light of the best scientific knowledge, with respect to those European sites within the ZoI of the Proposed Scheme, the potential impact sources and pathways, how these could impact on the sites' QI habitats and species and SCI species and whether the predicted impacts would adversely affect the integrity of North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Howth Head Coast SPA, Dalkey Islands SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, Rockabill SPA or The Murrough SPA. There are no other European sites at risk of effects from the Proposed Scheme.

389 Avoidance, design requirements and mitigation measures are set out within this NIS (and its appendices) and the effective implementation of these mitigation measures will ensure that any impacts on the conservation objectives of European sites will be avoided during the Construction and Operational Phases of the Proposed Scheme such that there will be no risk of adverse effects on these European sites.

390 It has been objectively concluded by Scott Cawley Ltd., following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts from the Proposed Scheme and with the effective implementation of the mitigation measures proposed, that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects.

## 11 References

**Barron, S.J.; Delaney, A.; Perrin, P.M.; Martin, J.; O'Neill, F. (2011)** *National survey and assessment of the conservation status of Irish sea cliffs.* Irish Wildlife Manual No. 53

**BSBI (2020)** *Botanical Society of Britain and Ireland Maps* [Online] Available from bsbi.org/maps

**Chartered Institute of Ecology and Environmental Management (2018)** *Guidelines for Ecological Impact Assessment in the UK and Ireland*.

**CIRIA (2000)** *Environmental Handbook for Building and Civil Engineering Projects (C512).*

**CIRIA (2001)** *Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors (C532).*

**CIRIA (2006a)** *Control of water pollution from linear construction projects: Technical guidance (C648)*

**CIRIA (2006b)** *Control of water pollution from linear construction projects: Site guide (C649)*

**CIRIA (2007)** *The SUDS Manual (C697).*

**CIRIA (2015)** *Environmental good practice on site. Fourth edition. (C741).*

**Cutts, N., Phelps, A., Burdon, D. (2009)** *Construction and Waterfowl: Defining Sensitivity, Response, Impact and Guidance.* Report prepared by the Institute of Estuarine and Coastal Studies University of Hull and Humber INCA.

**Delaney, A., Devaney, F.M, Martin, J.M. and Barron, S.J. (2013)** *Monitoring survey of Annex I sand dune habitats in Ireland.* Irish Wildlife Manuals, No. 75. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin.

**Department of Environment, Heritage and Local Government (2010)** *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.*

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

**Enterprise Ireland (Year Unknown)** *BPGCS005, Oil Storage Guidelines.*

**Environment Agency (2004)** *UK Pollution Prevention Guidelines (PPG).*

**EPA (2017a)** *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Draft. August 2017.*

**EPA (2018)** *Water Quality in 2016: An Indicators Report Map 10: The 2014–2016 trophic status of transitional and coastal waters.*

**EPA (2019)** *Water Quality in Ireland 2013 – 2018.*

**EPA (2020)** *EPA Maps* [Online] Available from gis.epa.ie/EPAMaps/

**European Commission (2000)** *Communication from the Commission on the Precautionary Principle.*

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

**European Commission (2006)** *Nature and Biodiversity Cases – Ruling of the European Court of Justice.*

**European Commission (2014)** *Article 6 of the Habitats Directive – Rulings of the European Court of Justice.* Final Draft September 2014.

**European Commission (2019)** *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC.*

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

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

**Inland Fisheries Ireland (2016)** *Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters.*

**Jacobs (2021)** *BusConnects Dublin – Core Bus Corridor Infrastructure Works. Environmental Impact Assessment Report (EIAR). Kimmage to City Centre Core Bus Corridor Scheme.*

**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.

**McCorry, M.J., Ryle, T. (2009)** *Saltmarsh Monitoring Project 2007-2008: Final report.* Report to National Parks and Wildlife Service, Dublin, Ireland.

**NBDC (2020)** *National Biodiversity Data Centre Database* [Online] Available from maps.biodiversityireland.ie/Map

**NRA (2011)** *Guidelines for the Treatment of Air Quality During the Planning and Construction of National Road Schemes.*

**NPWS (2010)** Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. *Circular NPW 1/10 & PSSP 2/10.*

**NPWS (2012)** *Conservation Objectives: Baldoyle Bay SAC 000199.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013a)** *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013b)** *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013c)** *Conservation Objectives: Rockabill to Dalkey Island SAC 003000.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013d)** *Conservation Objectives: Malahide Estuary SAC 000205.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013e)** *Conservation Objectives: Rogerstown Estuary SAC 000208.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013f)** *Conservation Objectives: Lambay Island SAC 000204.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013g)** *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013h)** *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013i)** *Conservation Objectives: Rogerstown Estuary SPA 004015.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2013j)** *Conservation Objectives: Rockabill SPA [004014].* Version 1. Department of Culture, Heritage and the Gaeltacht.

**NPWS (2015a)** *Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2015b)** *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2016)** *Conservation Objectives: Howth Head SAC 000202.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

**NPWS (2017a)** *Conservation Objectives: Wicklow Mountains SAC 002122.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

**NPWS (2017b)** *Conservation Objectives: Ireland's Eye SAC 002193.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

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

**NPWS (2019b)** *The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Conservation Assessments*. Unpublished NPWS report.

**NPWS (2019c)** *The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Conservation Assessments*. Unpublished NPWS report.

**NPWS (2019d)** *Conservation Objectives: Ballyman Glen SAC 000713*. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.

**NPWS (2019b)** *Natura 2000 – Standard Data Form. Rockabill to Dalkey Island SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020a)** *NPWS Database* [Online] Available from www.npws.ie

**NPWS (2020b)** *Natura 2000 – Standard Data Form. North Dublin Bay SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020c)** *Natura 2000 – Standard Data Form. South Dublin Bay SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020d)** *Natura 2000 – Standard Data Form. Howth Head SAC.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020e)** *Natura 2000 – Standard Data Form. Howth Head Coast SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020f)** *Natura 2000 – Standard Data Form. Dalkey Islands SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020g)** *Natura 2000 – Standard Data Form. Rockabill SPA 004014.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020h)** *Natura 2000 – Standard Data Form. North Bull Island SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020i)** *Natura 2000 – Standard Data Form. South Dublin Bay and River Tolka Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020j)** *Natura 2000 – Standard Data Form. Malahide Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020k)** *Natura 2000 – Standard Data Form. Baldoyle Bay SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020l)** *Natura 2000 – Standard Data Form. Rogerstown Estuary SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020m)** *Natura 2000 – Standard Data Form. Skerries Islands SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020n)** *Natura 2000 – Standard Data Form. Ireland's Eye SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020o)** *Natura 2000 – Standard Data Form. Lambay Island SPA.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2020p)** *Natura 2000 – Standard Data Form.* The Murrough SPA. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

**NPWS (2021a)** *Conservation Objectives: Glenasmole Valley SAC 001209.* Version 1.0. Department of Housing, Local Government and Heritage.

**NPWS (2021b)** *Conservation Objectives: Knocksink Wood SAC 000725*. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

**NPWS (2021c)** *Conservation Objectives: Rye Water Valley/Carton SAC 001398.* Version 1.0. Department of Housing, Local Government and Heritage.

**NPWS (2022a)** *Conservation objectives for Wicklow Mountains SPA [004040]*. First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

**NPWS (2022b)** *Conservation objectives for Dalkey Islands SPA [004172].* First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

**NPWS (2022c)** *Conservation objectives for Howth Head Coast SPA [004113].* First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government, and Heritage.

**NPWS (2022d)** *Conservation objectives for Ireland's Eye SPA [004117].* First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage

**NPWS (2022e)** *Conservation objectives for Lambay Island SPA [004069].* First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage

**NPWS (2022f)** *Conservation objectives for Skerries Islands SPA [004122]*. First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage

**NPWS (2022g)** *Conservation objectives for The Murrough SPA [004186].* First Order Site Specific Conservation Objectives Version 1.0. Department of Housing, Local Government and Heritage.

**NRA (2005)** *Guidelines for the Treatment of Badgers during the Construction of National Road Schemes.*

**NRA (2006)** *Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes.*

**O' Neill, L. (2008)** *Population dynamics of the Eurasian otter in Ireland: integrating density and demography into conservation planning.* Unpublished PhD Thesis. Trinity College Dublin, Ireland.

**OPR (2021)** *Appropriate Assessment Screening for Development Management: Office of the Planning Regulator - Practice Note PN01.*

**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/

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

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

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

**Wright, M., Goodman, P., Cameron, T. (2010)** *Exploring Behavioural Responses of Shorebirds to Impulse Noise.* Wildfowl (2010) 60: 150-167.

**Directives and Legislation**

Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (The Habitats Directive).

Council Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (The Birds Directive).

Planning and Development Acts 2000 (as amended).

Roads Act 1993

S.I. No. 477 of 2011 - European Communities (Birds and Natural Habitats) Regulations 2011.

S.I. No. 355 of 2015 – European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015

S.I. No. 235 of 2022 - Flora (Protection) Order, 2022.