Lucan to City Centre Core Bus Corridor Scheme

October 2022

Natura Impact Statement

BUS CONNECTS

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

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Main Report

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1 Introduction

1 This Natura Impact Statement (NIS) has been prepared by Scott Cawley Ltd. on behalf of the National Transport Authority in respect of the Lucan to City Centre Core Bus Corridor Scheme (hereinafter "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 report has been prepared following an assessment, in view of best scientific knowledge for of the potential for, 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 screening report.

5 Following an examination, analysis and evaluation of all relevant information and in view of best scientific knowledge, and applying the precautionary principle, that Appropriate Assessment screening 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.

6 Accordingly, a Stage two Appropriate Assessment 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 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.

7 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 Appropriate Assessment 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.

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

9 It is the considered view of the authors of this NIS (Scott Cawley Ltd.) that, following the implementation of the mitigation measures proposed in Section 7, the Proposed Scheme will not, individually or in

[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* –defined under the Planning and Development Acts and/or Birds and Natural Habitats Regulations as (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).

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

10 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.'*

11 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 Act 2000, as amended ("the 2000 Act"). Subsection 177U(4) of the 2000 Act provides for screening for Appropriate Assessment 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.'*

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

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

14 '*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.

15 Consideration has been given in the preparation of this report, to the evolution in interpretation and application of provisions of EU Directives and Irish 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

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

17 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.).

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

3.1 Overview

19 The Proposed Scheme has an overall length of approximately 9.7km. The Proposed Scheme commences at Junction 3 of the N4 Lucan Road / Lucan bypass and is directed east towards the City Centre. From the R136 Ballyowen Road junction with the R835 Lucan Road the route runs east along the R835 Lucan Road to the roundabout serving the Lucan Retail Park and also the N4 Lucan Road eastbound on-slip. It is then routed via the N4 (passing the Liffey Valley Shopping Centre) as far as Junction 7 (M50) and via the R148 along Palmerstown Bypass, Chapelizod Bypass, Con Colbert Road, St John's Road West to Frank Sherwin Bridge, where it will join the prevailing traffic management regime on the South Quays (See Figure 1 at end of this report).

20 The Proposed Scheme includes an upgrade of the existing bus priority and cycle facilities. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the Proposed Scheme bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle tracks provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions.

21 Moreover, pedestrian facilities will be upgraded and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher-quality materials, planting, and street furniture provided to enhance the pedestrians' experience. See Appendix I for the General Arrangement drawings in respect of the layout, and Appendix II for the proposed surface water drainage works for the Proposed Scheme.

22 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;
- Reconfiguration of connections to existing drainage infrastructure and connection of new drainage infrastructure into the existing surface water drainage network;
- Installation of new bus stops and junction / roundabout modification;
- Provision of new structures (bridges, retaining walls etc (e.g., replacement pedestrian and cyclist bridge over the N4 at Ballyowen Road; pedestrian bridge over the N4 at Liffey Valley Shopping Centre; widening of Chapelizod Hill Road bridge; and; retaining walls along the N4, including at Hermitage Golf Club, Liffey Valley Shopping Centre and Hermitage Medical Clinic))
- Temporary and permanent land take at a number of areas including;
    i. Hermitage Golf Club – permanent land take to allow for boundary wall removal and relocation, tree removal and replacement;
    ii. The Hermitage Medical Clinic- permanent land take to allow for boundary wall removal and relocation;
    iii. Temporary landtake immediately north-east of the N4 Junction 2, between the Old Lucan Road and the R113 for provision of a Construction Compound LU1a;
    iv. Land take between the N4 National Road and the Old Lucan Road for provision Construction Compound LU1b;
    v. Amenity grassland north of the R148 Palmerstown Bypass, on the M50 Junction 7 to Con Colbert Road section of the Proposed Scheme – temporary land take for the provision Construction Compound LU2; and
    vi. Liffey Gaels Park, south of Chapelizod Bypass – temporary landtake for the provision Construction Compound LU3.
- Property boundary reinstatement, signage replacement; relocation of and/or installation of lighting columns; and
- Landscaping and tree planting, and reinstatement of temporary land acquisitions.

3.2 Surface Water Drainage Infrastructure

23 The surface water drainage system for the Proposed Scheme will discharge to four surface water receptors: Liffey_170, Liffey_180, Liffey_190 and Liffey Estuary Upper, as well as existing combined sewers which ultimately discharge to the Liffey Estuary Lower via Ringsend WwTP (See Figure 3 at end of this report). All drainage outfall discharges to surface waters represent point discharges. For the Proposed Scheme, there will be a net increase of 6,646m^2 in the impermeable area ultimately discharging to Dublin Bay. The drainage design principles ensure that all runoff from increases in impermeable areas will be attenuated and there will be no net increase in the surface water flow discharged to these receptors.

24 Proposed Surface Water Drainage Works drawings are provided in Appendix II and Sustainable Urban Drainage Systems (SuDS) solutions are summarised in **Table 1**.

***Table 1 Summary of Impermeable Areas and SuDS proposed* by waterbody**

Waterbody	Approx. Impermeable Surface Area			SuDS measures Proposed
	Existing (m^2)	Additional (m^2)	Percentage change (%)	
Liffey_170	56,047	2,629	4.85	Oversized pipes, tree pits
Liffey_180	215,895	3,715	1.72	Oversized pipes, bioretention
Liffey_190	59,628	1,032	1.73	Oversized pipes, bioretention
River Camac (Camac_040)	N/A	No change	-	N/A
Liffey Estuary Upper	61,320	-730	-1.19	Oversized pipes, change from hard standing to permeable grassland median
Grand Canal	N/A	No change	-	N/A
Liffey Estuary Lower	N/A	No change	-	N/A

3.3 Construction Compounds

25 Four Construction Compounds will be required along the length of the Proposed Scheme to facilitate construction:

- Construction Compound LU1a will be located immediately north-east of the N4 Junction 2, between the Old Lucan Road and the R113;
- Construction Compound LU1b will be located between the N4 National Road and the Old Lucan Road;
- Construction Compound LU2 will be located north of the R148 Palmerstown Bypass, on the M50 Junction 7 to Con Colbert Road section of the Proposed Scheme ; and,
- Construction Compound LU3 will be located to the south-west of the junction of the R148 Chapelizod Bypass / R833 Con Colbert Road.

26 The locations of the Construction Compounds are shown in Images 1-4. These four Construction Compounds will be used to store materials, plant and equipment, to manage the activities from and to provide welfare facilities for construction personnel.

27 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, with the likely exception of Construction Compound LU3. It is intended that this area (LU3) will also be used as a Construction Compound on the Liffey Valley to City Centre Core Bus Corridor Scheme (Construction Compound LV3), pursuant to conditions imposed by An Bord Pleanála, should they grant approval. It is envisaged that the Construction Phases of the Proposed Scheme, and the Liffey Valley to City Centre Scheme will not overlap. Depending on the

respective timing of the proposed schemes, the area may continue to be used uninterrupted as a Construction Compound if the second scheme commences construction within a relatively short period of time after the first scheme finishing construction. Alternatively, in the eventuality that there is likely to be a substantial time period (e.g. greater than 1 year) between the Construction Phases of the two schemes, the NTA in discussion with the Local Authority will identify the most appropriate interim use of the area. When the area has ceased to be used as a Construction Compound it will be returned to its original condition by the appointed contractor for the second scheme.

Image 1 Location and Extent of Construction Compound LU1a

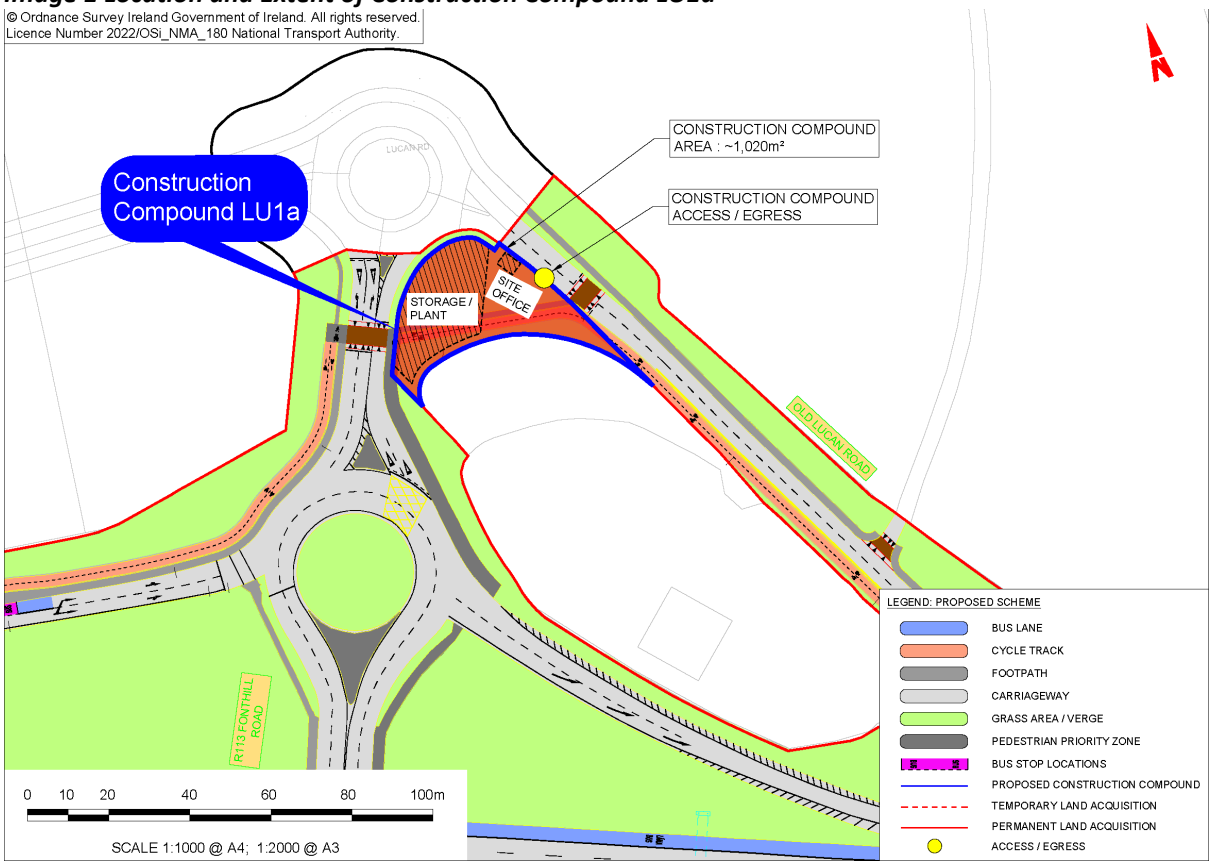


Image 2 Location and Extent of Construction Compound LU1b

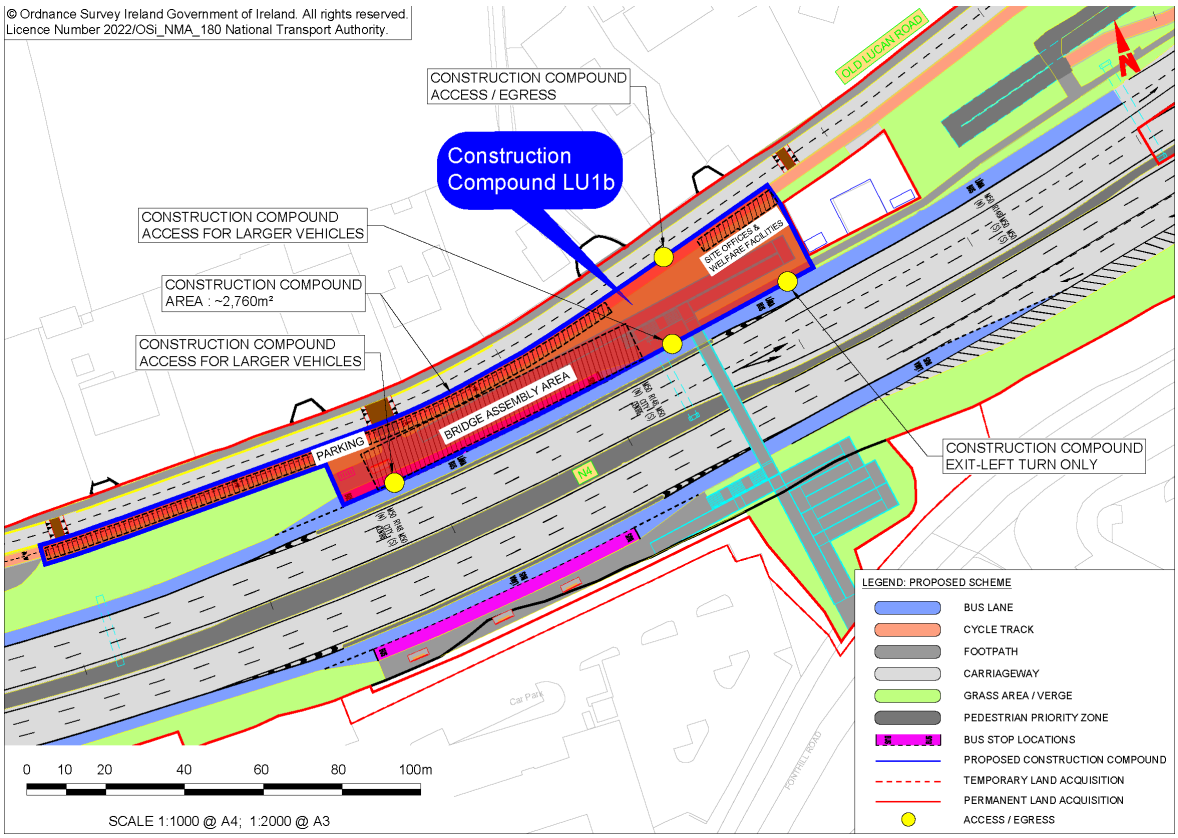


Image 3 Location and Extent of Construction Compound LU2

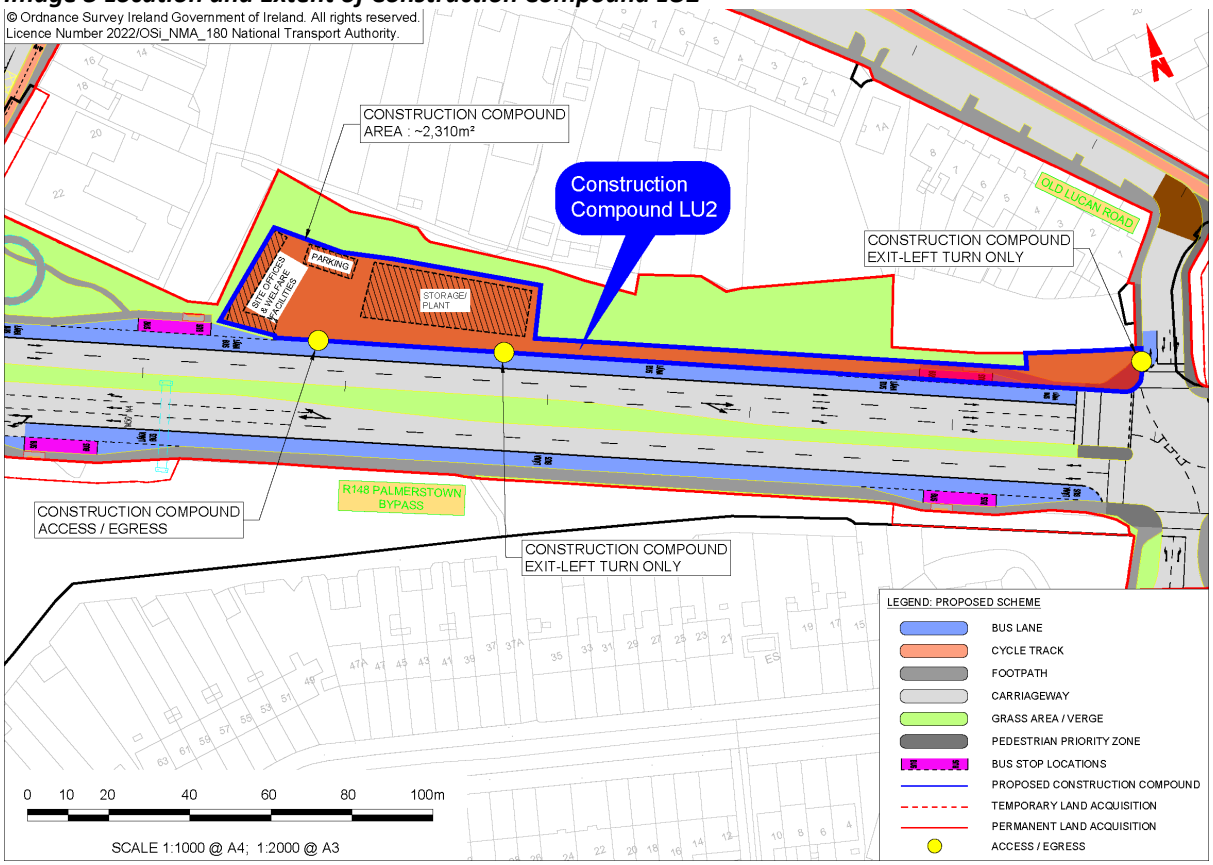
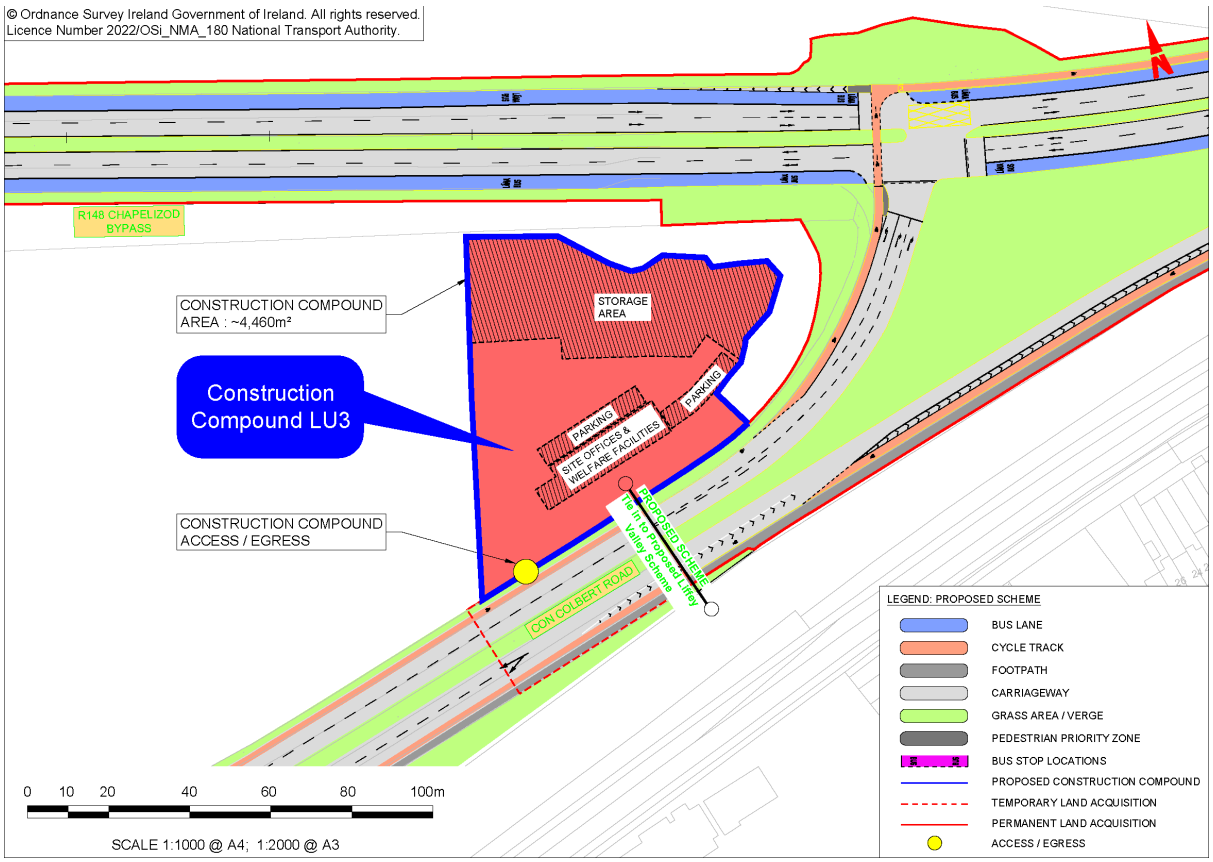


Image 4 Location and Extent of Construction Compound LU3



3.4 Estimated Construction Phase Duration

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

3.5 Operational Phase

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

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

4 Methodology

4.1 Scientific and Technical Competence Relied Upon

30 This NIS was co-authored by Laura Higgins, Kristie Watkin-Bourne and Caroline Kelly, and reviewed by Tim Ryle and Aebhín Cawley of Scott Cawley Ltd. The background and experience of the author and contributors to this report are set out below.

Laura Higgins

31 Laura Higgins is a Senior Ecologist with Scott Cawley Ltd. and has worked at the company since 2018. She holds a first class honours degree in Natural Sciences, with a specialisation in Zoology from Trinity College Dublin. Laura has worked on a wide range of residential, commercial, and infrastructural projects across Ireland, and her current role involves project management and survey management of complex projects. She regularly carries out assessments and prepares reports including Ecological Impact Assessments, Environmental Impact Assessment Report chapters and Appropriate Assessment reports. Her ecological field survey experience includes habitat, invasive species, amphibian, bird, mammal and bat surveys.

Kristie Watkin-Bourne

32 Kristie Watkin-Bourne is a 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 Appropriate Assessment, 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.

Tim Ryle

33 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 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 appropriate Assessment for small-scale development projects and larger infrastructural projects, land plans as well as national/government plans.

Caroline Kelly

34 Caroline holds an honours degree in Environmental Biology, from University College Dublin (UCD) and a Masters in Applied Ecological Assessment from University College Cork (UCC). She is a Senior Ecologist at

Scott Cawley Ltd., having worked at the company since 2015. Caroline has experience in habitat survey and assessment (including Annex I habitats and legally protected sites) in a range of terrestrial, freshwater and coastal environments, surveys for protected species (e.g. bats, badger, otter), bird surveys (both breeding and overwintering), and surveys for invasive species. Whilst working at Scott Cawley Ltd. Caroline has managed ecological assessments for a wide range of projects including tourism, recreational, industrial, commercial, residential, transport and renewable energy developments.

Aebhín Cawley

35 Aebhín Cawley is Managing Director 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 Appropriate Assessment to a range of organisations and professional institutes and regularly provides Appropriate Assessment training to local authorities and other public sector organisations. She authored guidelines on Appropriate Assessment for the EPA and delivered training on its application to its inspectorate.

4.2 Guidance and Approach

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

European Commission Guidance

- *Assessment of Plans and Projects in Relation to 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);
- *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).

Irish Guidance

- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* (Department of Environment, Heritage and Local Government 2010 revision);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. *Circular NPW 1/10 & PSSP 2/10* (NPWS, 2010); and
- *OPR Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021).

37 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, including

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

4.3 Assessment Methodology

38 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.

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

40 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 Qualifying Interest(s) (QIs) or Special Conservation Interest(s) (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.

41 The identification of source-pathway-receptor connection(s) between the Proposed Scheme and European sites essentially is the process of identifying which European sites are within the zone of influence of the Proposed Scheme, and therefore potentially at risk of significant effects. The zone of influence 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).

42 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 and exposure to the risk and the characteristics of the receptor. Where there is any uncertainty, the precautionary principle has been applied.

43 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.

44 The conservation objectives relating to each European site and its QIs/SCIs are expressed generally for 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 SPAs "to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA".

45 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.

46 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.

47 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.

48 In the case of Irelands 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 which has occurred since their designation, insofar as possible.

49 To the extent that the assessment carried out as part of the preparation 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

50 The data sources used to inform the assessment presented in this report are as follows (accessed in May 2022):

- Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) from www.npws.ie[2], including conservation objectives documents;
- Online data records available on National Biodiversity Data Centre Database (NBDC Online Database 2022) (See Appendix IV);
- Online data records made available via an NPWS data request (NPWS 2020);
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2019a, 2019b and 2019c);
- Ordnance Survey Ireland (OSI) orthophotography for the Proposed Scheme study area available from www.osi.ie;
- Bus Connects Drone Imagery, surveyed November 2020.
- Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data[3];
- Records from the Botanical Society of Britain and Ireland (BSBI);
- Information contained within the Flora of County Dublin[4];
- Environmental information/data for the area available from the EPA website www.epa.ie;

[2] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2022_02 and SPA_ITM_2021_10.

[3] Article 17 of the EU Directive on the Conservation of habitats, Flora 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 .

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

- Information on the status of EU protected habitats and species in Ireland[5];
- 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 Consultation

Table 2 outlines the Appropriate Assessment issues raised during consultation.

Table 2 Appropriate Assessment Issues raised during Consultation

Consultee	Phase / Date of Consultation	Issues Raised	Relevant Section of the AA where this is addressed
Department of Housing, Local Government and Heritage (formerly Department of Culture, Heritage and the Gaeltacht	30 July 2019 Ref. G Pre00165/2019	The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features: • Biodiversity in general and with specific attention to Natura 2000 sites. • Habitats and species protected under the Habitats Directive, such as Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur), bird species protected under the Birds Directive, such as Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur). • Species and / or habitats listed in the Habitats Directive inside or outside of Natura 2000 sites be recorded. • Species protected under the Wildlife Act, including protected flora. • Important bird areas such as those identified by Birdwatch Ireland. • Features of the landscape which are of major importance as biodiversity corridors to wild flora or fauna, as	Section 5.1. European Sites; Section 4.6 Baseline Surveys; Section 5 Overview of the Receiving Environment and Section 7 Assessment of Potential Effects on European sites

[5] NPWS (2019a). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.

[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	Phase / Date of Consultation	Issues Raised	Relevant Section of the AA where this is addressed
		referenced in Article 10 of the Habitats Directive.	
		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 Surveys
		The Department requires that the Appropriate Assessment addresses the issue of invasive alien plant and animal species and include detailed methods to ensure accidental introduction or spreading does not occur. The Department recommended that an Invasive Species Action Plan should form part of the planning application.	Section 6.4 Habitat Degradation as a Result of Introducing/ Spreading Non-native Invasive Species
		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 6.6 Disturbance and Displacement Impacts and Section 9 In-Combination Assessment
		The Department recommended that the Proposed Scheme be subject to Appropriate Assessment in respect of potential to impact Natura 2000 sites either alone or in combination with other plans or projects, and must contain complete (contain no lacunae), precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned. To assess mitigations, the following tasks must be completed: • List each of the measures to be introduced (e.g., noise bunds, tree planting). • Explain how the measures will avoid the adverse impacts on the site. • Explain how the measures will reduce the adverse impacts on the site. Then, for each of the listed mitigation measures:	The Proposed Scheme has been subject to Screening for AA and the production of a Natura Impact Statement, which accompanies the planning application. Section 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects

Consultee	Phase / Date of Consultation	Issues Raised	Relevant Section of the AA where this is addressed
		• Provide evidence of how they will be secured and implemented and by whom. • Provide evidence of the degree of confidence in their likely success. • Provide a timescale, relative to the project or plan, when they will be implemented. Where residual impacts remain, further mitigation measures may be required: • Evidence should be provided of how mitigation measures will be monitored. • Monitoring should take place immediately down-stream of the Proposed Scheme. • The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment.	
Inland Fisheries Ireland (IFI)	3 November 2020	The topics addressed in the IFI letter received on 3 November 2020 did not specifically mention Appropriate Assessment. Topics included: • Water bodies that will be crossed by the Proposed Scheme; • Fisheries importance of water bodies that will be crossed by the Proposed Scheme; • Scheme design in regard to structures at water crossings; • Baseline data; • Impact Assessment; and • Mitigation measures.	Section 5.10 Hydrology; Section 5 Overview of the Receiving Environment; Section 3 Description of the Proposed Scheme, Section 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects and Section 7 Assessment of Potential Effects on European Sites

4.6 Baseline Surveys

51 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

52 Habitat surveys were carried out by Scott Cawley Ltd. between June and August 2018 along the then Proposed Scheme alignment. Confirmatory surveys were subsequently undertaken on the Proposed Scheme again in August 2020 to check and update the presence and extent of habitats found in the 2018 habitat surveys. Additional habitat surveys were carried out along any new route sections added since 2018All 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 (S.I. 235/2022) 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 (Birds and Natural 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].

53 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies do not involve in-stream works, modifications to banks or significant disturbance as a result of the Proposed Scheme. The desk study identified no sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. As such, instream aquatic habitat surveys were not deemed necessary.

4.6.2 Fauna Surveys

54 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 Special Conservation Interest bird species. Dedicated fisheries or aquatic surveys were not deemed to be required for this assessment as the Proposed Scheme is not hydrologically connected to any European site designated for Annex II fish species or white-clawed crayfish *Austropotamobius pallipes*. The nearest known European site designated for Atlantic salmon *Salmo salar*, river lamprey *Lampetra fluviatilis* and brook lamprey *L. planeri* is the River Boyne and River Blackwater SAC, located approximately 30km north-west 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 44km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow river catchment.

4.6.3 Otter

55 The footprint of the Proposed Scheme and suitable lands (e.g., greenfield sites) immediately adjacent were surveyed for otter activity as part of the multi-disciplinary walkover survey, undertaken between June and August 2018, and in August 2020. The presence/absence of these species was surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings as well as by direct observation. In addition, the study area was surveyed for the presence of otter holts. Where present, any evidence of use was recorded.

56 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. However, no instream works are proposed and the desk study identified no sites where water

[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

bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. As such, separate otter suitability surveys were not deemed necessary.

4.6.4 Kingfisher

57 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require habitat suitability assessments for nesting kingfisher *Alcedo atthis*. However, no instream works are proposed and the desk study identified no sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. As such, kingfisher habitat suitability assessment surveys were not deemed necessary.

4.6.5 Other Birds

58 The results of the desk study have informed the assessment of likely significant effects on breeding bird species arising from the Proposed Scheme.

59 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] (Scott Cawley Ltd., 2017). A habitat suitability assessment was carried out in October 2020 to verify the suitability of potential inland feeding/roosting sites identified during the desk study.

60 There is one suitable wintering bird site which would be subject to habitat loss, or disturbance at the very least by the Proposed Scheme. A field survey was carried out to confirm the suitability or presence of wintering birds at Liffey Gaels GAA playing pitches, located adjacent to the Chapelizod Bypass / Con Colbert Road (referred to as CBC0006WB001); which was deemed suitable for wintering birds and was surveyed twice a month, between the months of October 2020 and March 2021, and October 2021 and April 2022. The results of the desk study and field surveys have informed the assessment of likely significant effects on wintering bird species arising from the Proposed Scheme (See Figure 2 at tend this this report).

61 In general, the approach was a 'look-see' methodology (based on Gilbert *et al*. 1998). All birds present within a site were identified with reference to *Collins Bird Guide* (Svensson, 2009) to confirm identification (where necessary), and were recorded using the British Trust for Ornithology (BTO) species codes. The total flock size of birds present, their general location within the site and any activity exhibited were also recorded. Evidence of bird droppings were recorded at pre-defined transect lines. The length of the transect line varied per site. Transect lines were only completed at sites where no bird species were present, to avoid any potential disturbance.

5 Overview of the Receiving Environment

5.1 European Sites

62 The Proposed Scheme does overlap with any European site. The nearest European site to the Proposed Scheme is the Rye Water Valley/Carton SAC, which is located upstream, approximately 4.3km away.

63 The Proposed Scheme is hydrologically connected to South Dublin Bay and River Tolka Estuary SPA, as well as South Dublin Bay SAC. These European sites are located approximately 7km and 7.8km downstream of the point at which the River Camac is crossed by the Proposed Scheme, respectively.

64 There are eight European sites located in Dublin Bay which are downstream of the Proposed Scheme. These sites include South Dublin Bay SAC, North Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Dalkey Islands SPA, Howth Head Coast SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA. European sites will be hydrologically connected to the Proposed Scheme via the River Annfield (Liffey_180), River Camac (Camac_040), Grand Canal, River Liffey (Liffey_180 and Liffey_190 sections), the Liffey Estuary Upper and Liffey Estuary Lower. In addition, the Rye Water Valley/ Carton SAC is located upstream of the Proposed Scheme and will be hydrologically connected to the Proposed Scheme via the River Liffey.

65 There are twelve SPAs designated for SCI species that are known to forage and/or roost at inland sites across Dublin City and/or utilise Dublin Bay. 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.

66 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.

67 The European sites present in the vicinity of the Proposed Scheme are shown in Figure 4 at the end of this report and listed in **Table 3**, along with their Qualifying Interests (QIs)/Special Conservation Interests (SCIs) and proximity to the Proposed Scheme.

Table 3 European sites in the vicinity of the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	**Location Relative to the Proposed Scheme (as the crow flies)**
Special Area of Conservation (SAC)	
Rye Water Valley/ Carton SAC [001398] 1014 Narrow-mouthed Whorl Snail *Vertigo angustior* 1016 Desmoulin's Whorl Snail *Vertigo moulinsiana* 7220 Petrifying springs with tufa formation (Cratonerion)* *S.I. No.494/2018 – European Union Habitats (Rye Water Valley/ Carton Special Area of Conservation 001398) Regulations 2018* NPWS (2021d) *Conservation Objectives: Rye Water Valley/Carton SAC 001398.* Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage	Approximately 4.2km from the Proposed Scheme
South Dublin Bay SAC [000210] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 2110 Embryonic shifting dunes *S.I. No. 525/2019 – European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019* NPWS (2013b) *Conservation Objectives: South Dublin Bay SAC 000210.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 5.3km from the Proposed Scheme
North Dublin Bay SAC [000206] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1395 Petalwort *Petalophyllum ralfsii* 1410 Mediterranean salt meadows (Juncetalia maritimi) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes)	Approximately 7.4km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks *S.I. No. 524/2019 – European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019* NPWS (2013a) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Rockabill to Dalkey Island SAC [003000] 1170 Reefs 1351 Harbour porpoise *Phocoena phocoena* *S.I. No. 94/2019 – European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019* 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 13.4km from the Proposed Scheme
Howth Head SAC [000202] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths *S.I. No. 524/2021 – European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021.* 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 13.1km from the Proposed Scheme
Wicklow Mountains SAC [002122] 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with *Erica tetralix* 4030 European dry heaths 4060 Alpine and Boreal heaths 6130 Calaminarian grasslands of the Violetalia calaminariae 6230 Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles 1355 *Lutra lutra* (Otter) 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 11.6km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
Knocksink Wood SAC [000725] 7220 Petrifying Springs with Tufa formation (Cratonuerion)* 91A0 Old Sessile oak woods with *Ilex* and *Blechnum* in the British Isles 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnion incanae, Salicion albae)* *S.I. No. 93/2019- European Union Habitats (Knocksink Wood Special Area of Conservation 000725) Regulations 2019* NPWS (2021e) *Conservation objectives for Knocksink Wood SAC [000725].* Version 1.0. Department of Housing, Local Government and Heritage.	Approximately 15.8km from the Proposed Scheme
Ballyman Glen SAC [000713] 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens *S.I. No. 92/2019- European Union Habitats (Ballyman Glen Special Area of Conservation 000713) Regulations 2019* NPWS (2019f) *Conservation objectives: Ballyman Glen SAC [000713].* Version 1.0. Department of Housing, Local Government and Heritage.	Approximately 17.5km from the Proposed Scheme
Baldoyle Bay SAC [000199] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 *Salicornia* and other annuals colonizing mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) *S.I. No. 472/2021 – European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021* NPWS (2012) *Conservation Objectives: Baldoyle Bay SAC 000199.* Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 11.9km from the Proposed Scheme
Glenasmole Valley SAC [001209] 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 *Molinia meadows* on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) 7220 Petrifying springs with tufa formation (Cratoneurio*n*)* *S.I. No. 345/2021 – European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021* NPWS (2021f) *Conservation objectives for Glenasmole Valley SAC [001209].* Version 1.0. Department of Housing, Local Government and Heritage.	Approximately 9.7km from the Proposed Scheme
Bray Head SAC [002193] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths *S.I. No. 620/2017 – European Union Habitats (Bray Head Special Area of Conservation 000714) Regulations 2017*	Approximately 21.4km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
NPWS (2017b) *Conservation objectives: Bray Head SAC [000714].* Version 1.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	
Ireland's Eye SAC [002193] 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts *S.I. No. 501/2017 – European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017* NPWS (2017c) *Conservation objectives: Ireland's Eye SAC [002193].* Version 1.0. Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	Approximately 16.1km from the Proposed Scheme
Malahide Estuary SAC [000205] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 *Salicornia* and other annuals colonising mud and sand 1320 *Spartina* swards (Spartinion maritimae)[10] 1330 Atlantic salt meadows *(*Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* *S.I. No. 91/2019 – European Union Habitats (Malahide Estuary Special Area of Conservation 000205) Regulations 2019* NPWS (2013f) *Conservation Objectives: Malahide Estuary SAC 000205.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 14.1km from the Proposed Scheme
Rogerstown Estuary SAC [000208] 1130 Estuaries 1140 Mudflats and sandflats not covered by seawater at low tide 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows *(*Glauco-Puccinellietalia maritimae) 1410 Mediterranean salt meadows (Juncetalia maritimi) 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*	Approximately 18km from the Proposed Scheme

[10] 1320 *Spartina* swards (*Spartinion maritimae*) habitat is included within the conservation objectives document for Malahide Estuary SAC, but not within the Statutory Instruments document. This is likely because *Spartina* is an invasive alien species in Ireland and as such NPWS have not set a conservation target for it, nor is there a requirement to assess the habitat as a QI.

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
S.I. No. 286/2018 European Union Habitats (Rogerstown Estuary Special Area of Conservation 000208) Regulations 2018 NPWS (2013g) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Lambay Island SAC [000204] 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal *Halichoerus grypus* 1365 Harbour seal *Phoca vitulina* *S.I. No. 294/2019 – European Union Habitats (Lambay Island Special Area of Conservation 000204) Regulations 2019* NPWS (2013i) *Conservation Objectives: Lambay Island SAC 000204. Version 1*. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 23.1km from the Proposed Scheme
Special Protection Area (SPA)	
South Dublin Bay and River Tolka Estuary SPA [004024] A046 Light-bellied Brent Goose *Branta bernicla hrota* A130 Oystercatcher *Haematopus ostralegus* A137 Ringed Plover *Charadrius hiaticula* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A144 Sanderling *Calidris alba* A149 Dunlin *Calidris alpina* A157 Bar-tailed Godwit *Limosa lapponica* A162 Redshank *Tringa totanus* A179 Black-headed Gull *Chroicocephalus ridibundus* A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* A999 Wetland and Waterbirds *S.I. No. 212/2010 – European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.* 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 4.3km from the Proposed Scheme
North Bull Island SPA [004006] A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A052 Teal *Anas crecca* A054 Pintail *Anas acuta* A056 Shoveler *Anas clypeata* A130 Oystercatcher *Haematopus ostralegus*	Approximately 7.4km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	**Location Relative to the Proposed Scheme (as the crow flies)**
A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A144 Sanderling *Calidris alba* A149 Dunlin *Calidris alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica* A160 Curlew *Numenius arquata* A162 Redshank *Tringa totanus* A169 Turnstone *Arenaria interpres* A179 Black-headed Gull *Chroicocephalus ridibundus* A999 Wetlands & Waterbirds *S.I. No. 211/2010 – European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.* NPWS (2015b) *Conservation Objectives: North Bull Island SPA 004006.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Dalkey Islands SPA [004172] A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* *S.I. No. 238/2010 – European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010* NPWS (2022e) *Conservation objectives for Dalkey Islands SPA [004172].* Generic Version 9.0. Department of Housing, Local Government and Heritage	Approximately 15.1km from the Proposed Scheme
Wicklow Mountains SPA [004040] A098 Merlin *Falco columbarius* A103 Peregrine *Falco peregrinus* *S.I. No. 586/2012 – European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.* NPWS (2022g) *Conservation objectives for Wicklow Mountains SPA [004040].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	Approximately 11.6km from the Proposed Scheme
Baldoyle Bay SPA [004016] A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A137 Ringed Plover *Charadrius hiaticula* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A157 Bar-tailed Godwit *Limosa lapponica* A999 Wetland and Waterbirds	Approximately 12.3km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
S.I. No. 275/2010 – European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010. NPWS (2013e) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Howth Head Coast SPA [004113] A188 Kittiwake *Rissa tridactyla* *S.I. No. 185/2012 – European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.* NPWS (2022b) *Conservation objectives for Howth Head Coast SPA [004113].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	Approximately 15.8km from the Proposed Scheme
Ireland's Eye SPA [004117] A017 Cormorant *Phalacrocorax carbo* A184 Herring Gull *Larus argentatus* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* *S.I. No. 240/2010 – European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.* NPWS (2022h) *Conservation objectives for Ireland's Eye SPA [004117].* Generic Version 9.0. Department of Housing, Local Government and Heritage	Approximately 15.9km from the Proposed Scheme
Malahide Estuary SPA [004025] A005 Great Crested Grebe *Podiceps cristatus* A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A054 Pintail *Anas acuta* A067 Goldeneye *Bucephala clangula* A069 Red-breasted Merganser *Mergus serrator* A130 Oystercatcher *Haematopus ostralegus* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A149 Dunlin *Calidris alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica* A162 Redshank *Tringa totanus* A999 Wetland and Waterbirds *S.I. No. 285/2011 – European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.* NPWS (2013f) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 14.1km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
Rogerstown Estuary SPA [004015] A043 Greylag Goose *Anser anser* A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A056 Shoveler *Anas clypeata* A130 Oystercatcher *Haematopus ostralegus* A137 Ringed Plover *Charadrius hiaticula* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A149 Dunlin *Calidris alpina alpina* A156 Black-tailed Godwit *Limosa limosa* A162 Redshank *Tringa totanus* A999 Wetlands *S.I. No. 271/2010 – European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015) Regulations 2010.* NPWS (2013g) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 18.4km from the Proposed Scheme
Lambay Island SPA [004069] A009 Fulmar *Fulmarus glacialis* A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A043 Greylag Goose *Anser anser* A183 Lesser Black-backed Gull *Larus fuscus* A184 Herring Gull *Larus argentatus* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* A204 Puffin *Fratercula arctica* *S.I. No. 242/2010 – European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.* NPWS (2022a) Conservation objectives for Lambay Island SPA [004069]. Generic Version 9.0. Department of Housing, Local Government and Heritage	Approximately 23.1km from the Proposed Scheme
The Murrough SPA [004186] A001 Red-throated Diver *Gavia stellata 13.5km* A043 Greylag Goose *Answer anser 15-20km* A046 Light-bellied Brent Goose *Branta bernicla hrota 15-20km* A050 Wigeon *Anas penelope* A052 Teal *Anas crecca* A179 Black-Headed Gull *Chroicocephalus ridibundus* A184 Herring Gull *Larus argentatus* A195 Little Tern *Sterna albifrons*	Approximately 31.5km from the Proposed Scheme

European Site Name [Code] and its Qualifying interest(s)/Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
A999 Wetland and Waterbirds *S.I. No. 298/2011 – European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011* NPWS (2022d) *Conservation objectives for The Murrough SPA [004186].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	
Skerries Islands SPA [004122] A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A046 Light-bellied Brent Goose *Branta bernicla hrota* A148 Purple Sandpiper *Calidris maritima* A169 Turnstone *Arenaria interpres* A184 Herring Gull *Larus argentatus* *S.I. No. 245/2010 – European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.* NPWS (2022c) *Conservation objectives for Skerries Islands SPA [004122].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	Approximately 28.1km from the Proposed Scheme
Rockabill SPA [004114] A148 Purple Sandpiper *Calidris maritima* A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* *S.I. No. 94/2012- European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004114)) Regulations 2012.* NPWS (2013l) *Conservation objectives for Rockabill SPA [004114].* Generic Version 1.0. Department of Arts, Heritage and the Gaeltacht.	Approximately 28.8km from the Proposed Scheme

5.2 Habitats

68 The Proposed Scheme is located in a highly urbanised environment, which in places runs parallel to the course of the River Liffey. Habitats present in the footprint of the Proposed Scheme include the following:

- Tilled lands (BC3);
- Flower beds and borders (BC4);
- Buildings and artificial surfaces (BL3);
- Tidal rivers (CW2);
- Spoil and bare ground (ED2);
- Recolonising bare ground (ED3);
- Depositing/ lowland rivers (FW2);
- Improved agricultural grassland (GA1);
- Amenity Grassland (Improved) (GA2);
- Dry meadows & grassy verges (GS2);

- Residential;
- (Mixed) broadleaved woodland (WD1);
- Mixed broadleaved/conifer woodland (WD2);
- Scattered trees and parkland (WD5);
- Hedgerows (WL1);
- Treelines (WL2);
- Scrub (WS1);
- Immature woodland (WS2); and
- Ornamental/ non-native shrub (WS3).

69 The habitat type tidal rivers (CW2) corresponds with the Annex I habitat Estuaries [1130] and is present in the Liffey Estuary Upper, located adjacent to the terminus of the Proposed Scheme at Heuston Station. No direct works are proposed within the habitat. None of the other habitats listed above correspond to Annex I Qualifying Interest habitats.

5.3 Flora and Fauna Species

5.4 Flora

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

71 There was one non-native invasive plant species, Japanese knotweed *Reynoutria japonica*, listed on the Third Schedule of the Birds and Habitats Regulations which was identified along the Proposed Scheme, but outside the Proposed Scheme boundary, along, and in areas adjacent to, St. Laurence's Road at five separate locations.

72 The desk study returned records of a total of 18 species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations across the wider study area (*i.e.,* Grid Squares O03 and O13). These records include aquatic species associated with the Grand Canal and River Liffey such as water fern *Azolla filiculoides,* curly waterweed *Lagarosiphon major,* Canadian waterweed *Elodea canadensis* and Nuttall's waterweed *Elodea nuttallii.* Canadian waterweed *Elodea canadensis*, which is also noted from the wider vicinity was delisted as a third schedule species with the introduction of SI 355/2015. There are also records of Himalayan balsam *Impatiens glandulifera* and Japanese knotweed *Reynoutria japonica* along the River Liffey, River Camac and Grand Canal. Records of Giant knotweed *Reynoutria sachalinensis* and giant-rhubarb *Gunnera tinctoria* exist from Waterstown Park and the Irish National War Memorial Park respectively. According to the NBDC online database, several records of bohemian knotweed *Reynoutria japonica x sachalinensis = R. x bohemica*, Brazilian giant-rhubarb *Gunnera manicata,* three-cornered garlic *Allium triquetrum,* parrot's-feather *Myriophyllum aquaticum,* curly waterweed *Lagarosiphon major* and rhododendron *Rhododendron ponticum* exist for several locations in close proximity to the Proposed Scheme. These species were not present within the footprint of the Proposed Scheme.

5.5 Otter

73 A desk study found that otter is known to occur within 1km of the Proposed Scheme, and across the wider study area along the River Liffey, the River Camac and the Grand Canal. The Proposed Scheme crosses the culverted River Camac at Heuston Station.

74 A recent dedicated otter survey[11] recorded otter activity along the River Liffey and the River Camac. A total of 19 signs were recorded along the River Liffey, most of which occurred south of the Phoenix Park at Chapelizod and along the quay walls of Dublin City Centre. A disused holt, several spraints and slides were recorded to the west of St Marys Hospital, Phoenix Park which is within 1km of the Proposed Scheme. A total of eight otter signs and moderate otter activity was recorded along the River Camac, including at Kilmainham Gaol/ Richmond Park which lies within 1km of the Proposed Scheme.

75 No signs of otter, an Annex II species, were recorded during surveys within the footprint of the Proposed Scheme during multidisciplinary surveys.

76 The nearest European site for which this species is designated is the Wicklow Mountains SAC, which is located approximately 11.7km south of the Proposed Scheme. The Proposed Scheme is located within Liffey_SC_090 catchment. While the River Liffey and its tributaries are known to support otter, current guidance in respect of the hydrological distance that territorial otters roam suggest a range of approximately 7.5km for females and 21km for male otters (O'Neill *et al*., 2009). Thus, watercourses in proximity to the Proposed Scheme are not considered to be associated with QI populations associated with the Wicklow Mountains SAC. Wicklow Mountains SAC is located within a different sub-catchment (Dodder_SC_010) to the Proposed Scheme (Liffey_SC_090). As such, populations of otter within the footprint of the Proposed Scheme are deemed not to be connected to the SAC population.

5.6 Marine mammals

77 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Annfield (Liffey_180), River Camac (Camac_040), Grand Canal, River Liffey (Liffey_180 and Liffey_190 sections), the Liffey Estuary Upper and Liffey Estuary Lower.

78 Harbour seal, grey seal, and harbour porpoise are known to be present in Dublin Bay. Both seal species are listed on Annex II of the habitats directive and harbour porpoise are listed on Annex II of the Habitats Directive. The nearest European site for which harbour seal and grey seal have been designated is Lambay Island SAC located approximately 23.2km from the Proposed Scheme. The nearest European site for which harbour porpoise has been designated is Rockabill to Dalkey Island SAC located approximately 13.3km from the Proposed Scheme.

5.7 Invertebrates

79 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 returned records for white-clawed crayfish in the River Liffey, approximately 1km upstream of the Proposed Scheme at Leixlip Bridge. They have not been recorded downstream of Leixlip Bridge. Records for white-clawed crayfish also exist for the River Camac, approximately 4km upstream of the Proposed Scheme. Due to the underground nature of the Camac at the crossing point of the Proposed scheme, there is no suitable habitat for white-clawed crayfish within the footprint of the Proposed Scheme, or downstream of the River Camac crossing point.

80 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 8.9km east of the Proposed Scheme at North Bull Island in 2019 (NBDC 2022). 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.

[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.

5.8 Kingfisher

81 The desk study found that kingfisher *Alcedo atthis*, an Annex I species, are known to occur within 1km of the Proposed Scheme and across the wider study area. In particular, the River Liffey is known to support a population of kingfisher[12] and a record of kingfisher was returned from the desk study at Lucan Demesne. There are also records of kingfisher on the Grand Canal, which is hydrologically connected to the Proposed Scheme[13].

82 Kingfisher were not recorded during multidisciplinary surveys within the footprint of the Proposed Scheme. The nearest European site for which this species is designated is River Boyne and River Blackwater SPA, which is located approximately 31.9km from the Proposed Scheme and lies within a separate catchment. Kingfisher populations within close proximity to the Proposed Scheme are not deemed to be SCI species.

5.9 Birds

83 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*.

84 The desk study returned records of a total of 47 regularly occurring wintering bird species across the study area (i.e. Grid Squares O03 and O13). Records included 11 species listed under Annex I of the Birds Directive, 37[14] SCI species, and an additional two Red Listed and one Amber Listed species. This includes 28 species with breeding and wintering populations. The majority of wintering birds identified in the desk study are typically found in coastal, estuarine and intertidal habitats including the Liffey Estuary and Dublin Bay. The desk-based review of lands surrounding the Proposed Scheme returned records of several SCI wintering bird species which may use inland amenity grassland feeding sites, including light-bellied Brent goose, lapwing, herring gull, black-headed gull and lesser-black-backed gull.

85 A total of 15 wintering bird surveys were carried out for the Proposed Scheme at one location, namely CBC0006WB001 (at the Liffey Gaels GAA playing pitches adjacent to the Chapelizod Bypass / Con Colbert Road) (See Figure 2 at end of this NIS). Species identified included herring gull, black-headed gull and common gull. Goose droppings were recorded on site twice over the course of the surveys undertaken. **Table 4** provides a summary of the findings of the winter bird surveys with respect to those species which are of highest conservation concern and were recorded within winter bird survey sites.

Table 4 Wintering Birds of Conservation Concern Recorded at Site CBC0006WB001 during the wintering bird surveys (2020-2021 and 2021-2022 seasons)

Common Name/Scientific Name/BTO Code	Site: Peak Count and Activity in the Study Area (Date)	Conservation Importance			Surveyor Observations outside of transect
		BoCCI (B – Breeding/W – Wintering)	Annex I	SCI	
Common gull *Larus canus* (CM)	Nine birds foraging on site (28/02/2022)	Amber (B/W)	-	-	N/A
Black-headed gull *Chroicocephalus ridibundus* (BH)	19 birds loafing on site (09/03/2022)	Amber (B/W)	-	✓	Five birds foraging in amenity grassland pitch to immediate west of transect location (16/03/2022)

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

[13] FERS Ltd. (2018). *Ecological survey of Clonburris Strategic Development Zone, Clondalkin, Co. Dublin.*

[14] Note that some species listed on the Annex I of the Birds Directive are also SCI species.

Common Name/Scientific Name/BTO Code	Site: Peak Count and Activity in the Study Area (Date)	Conservation Importance			Surveyor Observations outside of transect
		BoCCI (B – Breeding/W – Wintering)	Annex I	SCI	
Herring gull *Larus argentatus* (HG)	12 birds foraging on site (21/12/2021)	Amber (B/W)	-	✓	Five birds preening in amenity grassland pitch to immediate west of transect location (16/03/2022)

86 Transect CBC0006WB001 is characterized by playing pitches comprised of amenity grassland. The site is maintained through cutting. Disturbance was noted as high on this site due to animals (dogs off leash and horse grazing/walking), evidence of vehicles (motocross and quad bikes) and public disorder activities (fireworks and large material littering) being frequent. Large numbers of gulls or other wintering birds were not recorded during surveys.

87 Wintering bird activity was low across all visits (See Figure 5 at end of this NIS). **Table 5** compares peak counts identified across surveys to their national and international populations.

Table 5 Wintering Bird Species Recorded during Winter Bird Surveys in Comparison to the 1% of its International and National Populations

Common Name/Scientific Name/BTO Code	Site Peak Counts	Associated European sites within the ZoI	1% of International Population	1% of National Population
Common gull *Larus canus* (CM)	9	-	16,400	n/a
Black-headed gull *Chroicocephalus ridibundus* (BH)	19	South Dublin Bay and River Tolka Estuary SPA North Bull Island SPA The Murrough SPA	31,000	n/a
Herring Gull *Larus argentatus* (HG)	12	Ireland's Eye SPA Lambay Island SPA Skerries Islands SPA	14,400	n/a

88 A review of a study into light-bellied Brent goose inland feeding sites[8] has identified no known SPA wintering bird feeding sites in the footprint of the Proposed Scheme. There are also no known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e., the disturbance ZoI[15]. Droppings attributed to light-bellied Brent goose were recorded on two dates during the 2021-2022 survey season. A total of 294 light-bellied Brent goose droppings were recorded at the Liffey Gaels GAA pitches on the 21/12/2021 and 16 light-bellied Brent goose droppings were recorded on 28/02/2022. No goose droppings were recorded here during the 2020-2021 survey season. This data suggests that the Liffey Gaels GAA pitches have recently started to be used on an infrequent basis by irregular numbers of light-bellied Brent geese, for foraging/ loafing purposes. The inconsistency of recorded use of the site suggests that it is not a significant inland foraging resource for this SCI bird species and is more likely to be use sporadically/ infrequently.

89 The desk study returned records of peregrine falcon *Falco peregrinus* and merlin *Falco columbarius,* two raptor species for which Wicklow Mountains SPA is designated, from within the wider vicinity of the

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

Proposed Scheme. Records for peregrine exist for the Liffey Valley Park (Waterstown) area (Grid Ref: O0835) (2011) and Oblate Park area (Grid Ref: O1133) (2016), as well as the wider O13 10km grid square. Merlin is known to occur in the O03 10km grid square.

90 A number of SPAs have been included on a precautionary basis for assessment as it cannot with certainty be confirmed that their Special Conservation Interest species do not use areas in the vicinity of the Proposed Scheme as *ex-situ* habitat.

5.10 Hydrology

91 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Annfield (Liffey_180), River Camac (Camac_040), Grand Canal, River Liffey (Liffey_180 and Liffey_190 sections), the Liffey Estuary Upper and Liffey Estuary Lower.

92 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 6**.

Table 6 Water quality of watercourse / waterbodies in the vicinity of the Proposed Scheme

Watercourse	Location in relation to the Proposed Scheme	EPA Q-Values (Monitoring Station) and Water Framework Directive Water Quality Status/Risk Score	Name of and Distance to Downstream Waterbodies along with their associated Water Quality
Annfield River (Liffey_180)	One existing crossing point along the southern boundary of the Hermitage Golf Club (river is culverted here).	No Q-value data available No risk score data available The River Annfield is a tributary of the River Liffey (See below).	It flows for approximately 1.1km, from the crossing point at the entrance to Hermitage Golf Club, until it reaches the River Liffey (See below). The River Liffey flows until it reaches the Liffey Estuary Upper waterbody (classified as "Potentially Eutrophic"). It then enters the Liffey Estuary Lower transitional waterbody (classified as "Intermediate") at Custom House Quay, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
River Camac (Camac_040)	One existing crossing point on St. John's Road West, where the River Camac is culverted under the road.	Q3 Camac Close Emmet Road Poor 'At risk'	It enters the Liffey Estuary Upper (classified as "Potentially Eutrophic") adjacent to Heuston Station. It then enters the Liffey Estuary Lower transitional waterbody (classified as "Intermediate") at Custom House Quay, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Grand Canal	Hydrologically connected to the	Q-Value Score not applicable	It flows into the Liffey Estuary Lower transitional waterbody

Watercourse	Location in relation to the Proposed Scheme	EPA Q-Values (Monitoring Station) and Water Framework Directive Water Quality Status/Risk Score	Name of and Distance to Downstream Waterbodies along with their associated Water Quality
	Proposed Scheme at Griffeen Valley Park via the receiving surface water system.	Good 'Not at risk'	(classified as "Intermediate") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
River Liffey (Liffey_180) (Liffey_190)	Located in close proximity to the Proposed Scheme in a number of locations including the Chapelizod Bypass. Surface waters from the Proposed Scheme will drain into the River Liffey via the existing surface water drainage network.	Q3 Liffey- Mill Lane Studio, Liffey- 1km u/s Chapelizod Bridge (Gleanaulin Park), Liffey- 0.2km d/s Chapelizod Bridge (Lynch's Lane) Poor 'At risk'	It flows alongside the Proposed Scheme, until it flows into the Liffey Estuary Upper at the War Memorial Garden (classified as "Potentially Eutrophic"). It then enters the Liffey Estuary Lower transitional waterbody (classified as "Intermediate") at Custom House Quay, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Liffey Estuary Upper	The terminus of the Proposed Scheme is located on the south side of the Frank Sherwin Bridge on Victoria Quay, adjacent to the Liffey Estuary Upper.	Q-Value Score not applicable Good 'At risk'	It flows into the Liffey Estuary Lower transitional waterbody (classified as "Intermediate") at Custom House Quay, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Liffey Estuary Lower	Hydrologically connected to the Proposed Scheme via the Liffey Estuary Upper and Grand Canal.	Q-Value Score not applicable Good 'At risk'	The Liffey Estuary Lower transitional waterbody (classified as "Intermediate") at Custom House Quay and Grand Canal Dock ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Dublin Bay	Hydrologically connected to the Proposed Scheme via the River Annfield, River Camac, River Liffey, Grand Canal and Liffey Estuaries (Upper and Lower)	Q-value score N/A Good 'Not at Risk'	N/A

5.11 Hydrogeology

93 The Geological Survey of Ireland (GSI) data indicates that underlying aquifer is a Locally Important Aquifer-Bedrock which is Moderately Productive only in Local Zones, and that the bedrock formation 1:500k underlying the Proposed Scheme is "*Dark-grey argillaceous & cherty limestone and shale (Calp)"* and a small area of *"Pale-grey massive limestone*" in the westernmost section of the scheme at the N4 Junction 3. "

94 The Proposed Scheme overlies one ground waterbody, namely the Dublin ground waterbody. Environmental data sourced from the EPA for this ground waterbody is presented below:

Dublin Groundwater Body

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

95 The vulnerability of the Dublin ground waterbody to human activities largely ranges from "*Rock at or Near Surface", "Extreme", "High", "Moderate*" to "*Low*" within the footprint of the Proposed Scheme.

5.12 Soils & Geology

96 The 1:100,000 GSI bedrock geology map of the area indicates that the underlying bedrock along the Proposed Scheme is underlain by the Lucan Formation comprising Carboniferous Limestones. The majority of the Dublin City area was a deep marine basin known as the Dublin Basin where these sedimentary rocks were deposited.

97 The GSI Quaternary subsoils map shows the footprint of the Proposed Scheme is predominantly glacial tills derived from limestone Additionally, there are areas of made ground (Urban), alluvial deposits, gravels and shallow bedrock. The majority of the soils expected to be encountered within the study area are made ground comprising varying forms of hard standing materials including road pavements and footpaths. However, there are topsoil and other soils present within the study area.

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

98 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 hydrogeological impacts;
- Habitat degradation as a result of introducing/spreading non-native invasive species;
- Habitat degradation as a result of air quality impacts; and
- Disturbance and displacement impacts.

6.1 Habitat loss and fragmentation

99 The Proposed Scheme does not overlap with any European site. The nearest European site to the Proposed Scheme is the Rye Water Valley/ Carton SAC, which is located 4.3km away (as the crow flies). The nearest European site with a hydrological connection to the Proposed Scheme is also the Rye Water Valley/ Carton, however this site is located approximately 6.5km upstream of the Proposed Scheme. South Dublin Bay and River Tolka Estuary SPA lies approximately 7km downstream of the point at which the River Camac is crossed by the Proposed Scheme. This is followed by South Dublin Bay SAC, which is located approximately 7.8km downstream of the proposed crossing point on the River Camac. Therefore, there is no potential for direct habitat loss and fragmentation to occur as a result of the Proposed Scheme. 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 section 6.2 below.

100 Special Conservation Interest (SCI) species for which SPAs in the vicinity of the Proposed Scheme have been designated are known to utilise *ex situ* feeding sites in the Dublin area (i.e., Malahide Estuary SPA, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA).

101 A single potential inland feeding site within the footprint of the Proposed Scheme was surveyed to inform this assessment – CBC006WB001 Liffey Gaels GAA pitch, located between the Chapelizod Bypass and Con Colbert Road. This site will be lost, at least in the short-term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works. According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Likewise, numbers of black-headed gull and herring gull recorded here during surveys undertaken are not significant with respect to their national or international populations. Regardless, the Proposed Scheme will result (for the duration of the construction period) in the loss of a suitable inland feeding site for these SCI bird species. Therefore, there is potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss/ fragmentation. Therefore, there is potential for in-combination effects to occur.

102 Regarding the two raptor species for which Wicklow Mountains SPA are designated, according to the Scottish Natural Heritage Guidance[16] during the breeding season the core foraging range for peregrine is estimated at 2km from the nest site, with the maximum recorded distance of 18km in Britain. During the winter season the mean foraging range reduces to 3km with the maximum range being 6.5km. Likewise, during the breeding season merlin are known to forage within 5km of the next site, while in winter this generally reduces to 500m but can extend to 1.5km. Wicklow Mountains SPA lies approximately 11.7km south of the Proposed Scheme, which is well outside the typical foraging ranges for both peregrine and merlin. Therefore, likely significant effects on these two SCI bird species, as a result of *ex-situ* habitat loss/ fragmentation, can be excluded.

103 With the exception of otter, the location of the Proposed Scheme and its construction will not result in any direct loss or fragmentation of Annex I habitats or supporting habitats to Annex II species, for which European sites are designated for within the ZoI of the Proposed Scheme. In terms of otter, while the Proposed Scheme does cross the River Camac, it does so at an existing crossing location within which the river is culverted. As such will not be subject to any instream works nor alteration to the territory currently occupied by otter.

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 Dublin Bay or 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.

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

104 The Proposed Scheme has the potential to result in habitat degradation/ effects on QI/ SCI species as a consequence of hydrological impacts during the both the construction and operation phases. 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, which in turn can affect any species which utilise this aquatic environment. Otter use riparian habitats for foraging and commuting purposes and therefore would be potentially at risk of hydrological impacts. Wicklow Mountains SAC, which is located approximately 11.6km south of the Proposed Scheme (from the Liffey Estuary Lower), is the closest European site for which otter is the QI species. Typically, otter territories are within the range of 7.5km for females and up to 21km for males (Ó'Neill *et al*., 2009). The Proposed Scheme only interacts with the following watercourses: Annfield River, River Camac, Grand Canal, River Liffey, Liffey Estuary Upper and Liffey Estuary Lower. Whilst these

[16] Scottish Natural Heritage (SNH) (2016) *Assessing Connectivity with Special Protection Areas (SPAs).* June 2016 Version 3

watercourses lie within the typical territorial ranges of otters, none of them share any hydrological connection to the Wicklow Mountains SAC- it is the River Dodder which provides the key hydrological pathway between the Wicklow Mountains SAC and Dublin City. In addition, the Wicklow Mountains SAC lies within the Dodder_SC_010 subcatchment and the Proposed Scheme lies within the Liffey_SC_090 subcatchment. Given the separation which exists between the Wicklow Mountains SAC and the Proposed Scheme the otter population in the vicinity of the Proposed Scheme is regarded to be distinct to that of the SAC. Therefore, habitat degradation/ effects on the QI otter population for Wicklow Mountains SAC, as a result of hydrological impacts by the Proposed Scheme, can be excluded.

105 However, the Proposed Scheme is hydrologically connected to Dublin Bay via the River Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower, as well as a network of established combined sewer/surface water pipes which discharge via Ringsend WwTP. 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 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 construction but could potentially be exacerbated by the removal of vegetation. It should be noted that a highly substantial event/events would be required to generate such quantities, which is not deemed likely.

106 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). The QI habitats for which Howth Head SAC is designated (i.e. vegetated sea cliffs [1230] and European dry heaths [4030]) lie above the high water mark. Pollution is not regarded to be a threat or pressure which could potentially impact this SAC site (NPWS, 2021a)[17] and is not regarded to be a significant threat/ pressure to this habitat at a national level (Barron *et al.,* 2011)[18]. Therefore, the QI habitats of Howth Head SAC will be unaffected by a degradation in the surface water quality of the coastal waters of Dublin Bay and significant effects in that regard can be excluded.

107 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, also has the potential to affect SCI bird species and QI marine mammal species that commute, forage and loaf in Dublin Bay i.e. birds associated with Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The 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 downstream, which in turn could negatively affect the SCI bird species that rely upon these habitats as foraging and/or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI and QI populations. In a worst-case scenario 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 Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SPA, Malahide

[17] NPWS (2021a). *Natura 2000- Standard Data Form - Howth Head SAC [000202].* Updated 12-2021.

[18] Barron, S.J., Delaney, A., Perrin, P.M., Martin, J.R. & O'Neill, F.H. (2011). *National survey and assessment of the conservation status of Irish sea cliffs. Irish Wildlife Manuals No. 53.* National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrough SPA, Rockabill to Dalkey Island SAC and Lambay Island SAC are undermined.

108 As the Proposed Scheme has the potential to result in habitat degradation and effects on SCI bird species and QI marine mammal species associated with European sites located in Dublin Bay, as the result of hydrological impacts, there is the potential for in combination effects to occur.

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, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SAC, 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.

6.3 Habitat degradation as a result of hydrogeological Impacts

109 Groundwater levels in groundwater dependant habitats may be impacted by the removal of a proportion of an aquifer or dewatering activities associated with excavations which can lead to a temporary change in groundwater levels and flow within the aquifer. Likewise, the mobilisation of contaminants into the aquifer either through accidental spillage or disturbance of contaminated ground during excavation may reduce the quality of the groundwater within the aquifer, also resulting in the degradation of groundwater dependent terrestrial ecosystem and any species that they may support.

110 The potential for hydrogeological impacts is highly variable depending on the nature of the proposed works at specific locations and the receiving environment ground conditions. The unmitigated hydrogeological ZoI of the Proposed Scheme is not considered to extend to any groundwater dependent terrestrial ecosystems linked to European sites. This ZoI follows the professional judgement of the hydrogeology specialists.

111 As the Proposed Scheme does not have the potential to result in habitat degradation of the Qualifying Interest species/Special Conservation Interest supporting habitat of a European site as the result of hydrogeological impacts there is no potential for in combination effects to occur in that regard.

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

112 Five areas of Japanese knotweed, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, are present within, or in close proximity to, the Proposed Scheme. In the absence of mitigation, there is potential for this species to spread or be introduced, during construction and/or routine maintenance/management works, to terrestrial and habitat areas in European sites downstream in Dublin Bay (i.e., North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). These in turn may result in the degradation of the existing habitats, in particular those habitats not permanently or regularly inundated by seawater, potentially outcompeting other native species and affecting species compositive and physical structure of the habitat. Therefore, it is possible that the spread/ introduction of non-native invasive species could undermine the conservation objectives of these European sites.

113 It is not considered possible that the listed non-native invasive species could spread to European sites that are located a considerable distance from the outfall locations of the River Camac, Grand Canal, River Liffey, Liffey Estuary Upper and Liffey Estuary Lower and separated by a large marine waterbody (i.e., Rockabill to Dalkey Island SAC, Lambay Island SAC, Ireland's Eye SPA, The Murrough SPA and Dalkey Islands SPA).

114 As the Proposed Scheme has the potential to result in habitat degradation of the Qualifying/Special Conservation Interest habitats/supporting habitats of European sites as the result of the spread of non-native invasive species, there is the potential for in combination effects to occur in association with other activities/plans/projects.

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.

6.5 Habitat degradation as a result of air quality impacts

115 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 may lead to a reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Furthermore, emissions from car exhausts, and the deposition of particulate matter and heavy metals produced by engine, brake and tyre wear, can contribute to increased deposition of pollutants such as oxides of nitrogen (NO_x, Nos), volatile organic compounds (VOCs), particulate matter (PM), heavy metals (HM) and ammonia (NH_4) 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.

116 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 Compound during the Construction Phase, and up to 200m from the Proposed Scheme boundary during the Operational Phase. There are no European sites present within these distances.

117 As such the Proposed Scheme does not have the potential to result in habitat degradation of the Qualifying/ Special Conservation Interest species/ habitats of any European sites, as a result of air quality impacts, during either the Construction or Operational Phase of the Proposed Scheme. There is therefore, no potential for in combination effects to occur in that regard.

6.6 Disturbance and displacement impacts

118 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 250m[19]. For wintering birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m[20], 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.

119 There are a number of coastal 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

[19] 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)) 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.

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

playing pitches i.e. Malahide Estuary SPA, Baldoyle Bay SPA, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA and Lambay Island SPA, as well as The Murrough SPA (a distal site outside the typical 20km range but nonetheless supporting Brent Geese and a number of other SCI species that are recorded from Dublin Bay). Suitable inland foraging / roosting sites, which these bird species utilise, are located within the potential ZoI of the Proposed Scheme. Therefore, there is potential for the Proposed Scheme to result in disturbance / displacement impacts on SCI populations associated with European sites. Considering the habitat requirements of breeding tern species (i.e., known to breed on undisturbed beaches, offshore islands and lagoons), for which Dalkey Islands SPA is designated, there is no potential for the Proposed Scheme to result in the loss of supporting habitat to such species.

120 Regarding the raptor species, for which Wicklow Mountains SPA are designated (e.g., merlin and peregrine), a study by Ruddock & Whitfield[21], which included a review of previous studies in this area, offers no definitive distance after which disturbance to merlin is not significant but indicates that an upper limit of 300-500m may be sufficient in the case of breeding or nesting merlin. Likewise a distance of 500-750m is likely to be sufficient for breeding peregrines. Adopting a precautionary approach, based on the available data regarding disturbance distances for merlin and peregrine, it can be concluded that disturbance to these bird species would be most likely to occur within 1km (i.e., the disturbance ZoI is 1km). There are no European sites within the disturbance ZoI; the next nearest European site to the proposed development is 4.3km away. There are also no habitat areas within the disturbance ZoI of the proposed development that support populations of the SCI species for which Wicklow Mountains SPA is designated. Considering the above, there is no potential for the Proposed Scheme to result in disturbance/ displacement impacts on the SCI species for which Wicklow Mountains SPA is designated. [22]

121 Although no signs of kingfisher were recorded during field surveys of the Proposed Scheme, kingfisher, an Annex I bird species, is known to be present in the wider study area, in particular, along the River Liffey and the Grand Canal. 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[23]. The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA, which is located approximately 31.9km away. Therefore, kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.

122 Although no signs of otter were recorded during multidisciplinary field surveys of the Proposed Scheme, the River Liffey, River Camac and the Grand Canal are known to support otter, an Annex II and IV mammal species. The nearest SAC to the Proposed Scheme for which otter has been designated is Wicklow Mountains SAC which is located approximately 11.9km south of the Proposed Scheme. Research carried out by Ó'Néill *et al.* (2009) on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged 7.5km while male otter home ranges varied up to 21km. The Proposed Scheme only interacts with the following watercourses: Annfield River, River Camac, Grand Canal, River Liffey, Liffey Estuary Upper and Liffey Estuary Lower. Whilst these watercourses lie within the typical territorial ranges of otters, none of them share any hydrological connection to the Wicklow Mountains SAC- it is the River Dodder which provides the key hydrological pathway between the Wicklow Mountains SAC and Dublin

[21] Ruddock, M. & Whitfield, D.P. (2007). *A Review of Disturbance Distances in Selected Bird Species*. A report from Natural Research Projects) Ltd. to Scottish Natural Heritage. Available at: https://www.nature.scot/sites/default/files/2018-05/A%20Review%20of%20Disturbance%20Distances%20in%20Selected%20Bird%20Species%20-%20Natural%20Research%20Ltd%20-%202007.pdf [Accessed 24/05/2022]

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

[23] 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/

City. In addition, the Wicklow Mountains SAC lies within the Dodder_SC_010 subcatchment and the Proposed Scheme lies within the Liffey_SC_090 subcatchment. Given the separation which exists between the Wicklow Mountains SAC and the Proposed Scheme the otter population in the vicinity of the Proposed Scheme is regarded to be distinct to that of the SAC. Therefore, disturbance and displacement impacts on the QI otter population for Wicklow Mountains SAC, as a result of the Proposed Scheme, can be excluded.

123 Although marine mammals associated with European sites may commute and forage within the Liffey Estuary, 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 at Heuston Station located approximately 9.9km upstream of Dublin Bay, in a highly urbanised environment and where water levels can drop diurnally reducing the likelihood of marine mammals venturing this far up-river. In addition to this, the scale of works proposed in the vicinity of the Liffey Estuary are considered to be minor.

124 As the Proposed Scheme has the potential to result in the disturbance/displacement of the Qualifying/Special Conservation Interest species of any European site, there is the potential for in combination effects to occur in association with other activities/plans/projects.

The ZoI for disturbance associated with general construction activities for wintering birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m. There are no European sites within this ZoI. However, one potential *ex-situ* feeding site, supporting SCI listed bird species of the following European sites, is known to be present within this ZoI; Malahide Estuary SPA, Baldoyle Bay SPA, South Dublin Bay and River Tolka Estuary SPA, North Bull Island SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrough SPA

6.7 Summary

125 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 qualifying interest/special conservation interests of the following European sites: North Dublin Bay SAC; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; Lambay Island SAC; Howth Head Coast SPA; Dalkey Islands SPA; Rockabill SPA; North Bull Island SPA; South Dublin Bay and River Tolka Estuary SPA; Ireland's Eye SPA; Malahide Estuary SPA; Baldoyle Bay SPA; Rogerstown Estuary SPA; Skerries Islands SPA; Lambay Island SPA; and The Murrough SPA.

126 The potential impacts of the Proposed Scheme on the receiving environment, their zone of influence, and the European sites at risk of likely significant effects are summarised in **Table 7.**

Table 7 Summary of the potential impacts of the Proposed Scheme on the receiving environment, their potential zone of influence, and the European sites within the zone of influence

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 No European sites are at risk of direct habitat loss impacts There is potential for loss of *ex situ* inland feeding sites used by SCI wintering bird species.	Yes There are European sites at risk of *ex-situ* habitat losses: Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA

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 degradation/ effects on QI/SCI species as a result of hydrological impacts Habitats and species downstream of the Proposed Scheme and the associated surface water drainage discharge points, and downstream of offsite wastewater treatment plants.	Yes. There are European sites at risk of hydrological effects associated with the Proposed Scheme, namely: 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, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SAC, 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 hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the Proposed Scheme.	No There are no European sites at risk of hydrogeological effects associated with the Proposed Scheme
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the Proposed Scheme.	Yes. There are non-native invasive species present within or adjacent to the Proposed Scheme and in the surrounding area, therefore there is a risk associated with the Proposed Scheme to downstream European sites in Dublin Bay from the spread/introduction of non-native invasive species: South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Dublin Bay SAC, and North Bull Island SPA.
Air Quality impacts Potentially up to 50m from the Proposed Scheme boundary and 500m from the Construction Compound at Construction phase, and up to 200 metres at Operation Phase.	No. There are no European sites at risk of air quality effects associated with the Proposed Scheme
Disturbance and displacement impacts Potentially up to several hundred metres from the Proposed Scheme, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the Proposed Scheme, taking into account the sensitivity of the qualifying interest species to disturbance effects	Yes. There are no European sites within the potential zone of influence of disturbance effects associated with the construction or operation of the Proposed Scheme. However, there is one *ex situ* inland feeding site which is utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme. 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.

7 Assessment of Potential Effects on European Sites

127 This section of the NIS assesses the direct and indirect impacts of the Proposed Scheme on the European sites which fall within its zone of influence. For each of these European sites, the assessment below sets out the relevant ecological baseline information, the analysis of the potential impacts, the Qualifying

Interests/Special Conservation Interests 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.

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

129 The assessment of the Proposed Scheme in combination with any other plans or projects on European sites is presented in Section 8.

7.1 North Dublin Bay [000206] and South Dublin Bay SAC [000210]

7.1.1 Ecological Baseline Descriptions for North Dublin Bay SAC and South Dublin Bay SAC

North Dublin Bay SAC

130 The Natura 2000 Standard Data Form (NPWS, 2020la) 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 suggested to be actively accreting. Saltmarsh habitats are well represented at the site with particularly good zonation evident. Of note, is the occurrence of Petalwort *Petallophyllum ralfsii*, a QI plant species, with its only known location away from the western seaboard being on Bull Island. Threats to the site include pollution from Dublin Port, commercial bait digging, recreational activities and water abstraction by golf clubs.

South Dublin Bay SAC

131 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

132 The qualifying interests of North Dublin Bay SAC and South Dublin Bay SAC, and the overall conservation objectives, are listed in **Table 8**.

Table 8 Qualifying Interests and Conservation Objectives for North Dublin Bay SAC [000206] and South Dublin Bay SAC [000210]

Qualifying Interest(s)	Conservation Objective(s)
North Dublin Bay SAC [000206] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1395 Petalwort *Petalophyllum ralfsii*	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.

Qualifying Interest(s)	Conservation Objective(s)
1410 Mediterranean salt meadows (Juncetalia maritimi) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks *S.I. No. 524/2019 – European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019* NPWS (2013a) *Conservation Objectives: North Dublin Bay SAC 000206.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
South Dublin Bay SAC [000210] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 *Salicornia* and other annuals colonising mud and sand 2110 Embryonic shifting dunes *S.I. No. 525/2019 – European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019* NPWS (2013b) *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.

133 In conjunction with considering the generic conservation objective for this SAC "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.

134 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the qualifying interests within the European site. Affecting the conservation condition of the Qualifying Interests 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 qualifying interests 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

135 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 qualifying interests of North Dublin Bay SAC and South Dublin Bay SAC, are:

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

136 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. 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

137 Five areas of Japanese knotweed, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, are present within, or in close proximity to, the Proposed Scheme. During construction and/or routine maintenance/management work, this species could potentially, albeit unlikely, spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and/or spread of this non-native 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 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 Liffey (Liffey_180 and Liffey_190) and River Camac (Camac_040) as well as the Liffey Estuary which ultimately discharges directly to South 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 non-native invasive species spread.

7.1.3.3 Summary

138 **Table 9** presents a summary of the potential impacts of the Proposed Scheme on the qualifying interests of North Dublin Bay SAC and South Dublin Bay SAC, and how these impacts relate to affecting the sites' conservation objectives.

Table 9 Potential Impacts/ Effects on the Conservation Objectives of North Dublin Bay SAC and South Dublin Bay SAC

Conservation Objectives **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] 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 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. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Annual Vegetation of drift lines [1210] 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 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats. The introduction and/or spread of non-native 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.	Yes The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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 and sediment supply/Presence/ absence of physical barriers/Maintain the natural circulation of sediment 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: 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]** To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Habitat area/Hectares/Area stable or increasing, subject to natural processes, including erosion and succession	Yes 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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, 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			
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] To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Habitat area/Hectares/Area stable or increasing, subject to natural processes, including erosion and succession	Yes 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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 supplyPresence/ 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			
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] To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Habitat area/Hectares/Area stable or increasing, subject to natural processes, including erosion and succession	Yes 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			
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] To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Habitat area/Hectares/Area stable or increasing, subject to natural processes, including erosion and succession.	Yes Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			
Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] 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 Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.	Yes The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-	No
Habitat distribution/Occurrence/No decline, or change in habitat distribution, subject to natural processes			

Conservation Objectives 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 non-native 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.	native 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: 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] * 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 Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. The introduction and/or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or	Yes The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Vegetation structure: bare ground/Percentage cover/Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	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.		
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] 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 Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. The introduction and/or spread of non-native 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	Yes The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			
Vegetation structure: zonation/Occurrence/Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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	native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.		
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] 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	No 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.	No The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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 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	The introduction and/or spread of non-native 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.		
South Dublin Bay SAC			
Mudflats and sandflats not covered by water at low tide [1140] 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 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 along or cumulatively with other pollution	Yes The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during	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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Community distribution/Hectares/Conserve the following community type in a natural condition: Fine sands with *Angulus tenuis* community complex	sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats. The introduction and/or spread of non-native 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.	construction and operation of the Proposed Scheme. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	
Annual Vegetation of drift lines [1210] 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 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats.	Yes The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the	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			
Vegetation structure: zonation/Occurrence/Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession			

Conservation Objectives 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: sea rocket (*Cakile maritima*), sea sandwort (*Honckenya peploides*), prickly saltwort (*Salsola kali*) and oraches (*Atriplex* spp.)	The introduction and/or spread of non-native 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.	introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	
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]** 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 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 along or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats.	Yes The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-	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 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	The introduction and/or spread of non-native 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.	native invasive species to downstream European sites 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] 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 Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay. The introduction and/or spread of non-native invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or	Yes The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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)	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.		
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

139 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.

140 The CEMP summarises the overall environmental management strategy that will be adopted and implemented during the construction phase of the proposed road development. 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 road development. 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).

141 The CEMP has been prepared in conjunction with the Environmental Impact Assessment (EIA) Report and Natura Impact Statement (NIS), with input from members of the BusConnects Infrastructure team. The CEMP supports the information already provided in the EIA Report and the NIS and must be read in conjunction with the information already provided in the NIS. The details relevant to European Sites are already provided in the NIS.

142 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;
- 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.

143 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 (CIRIA 2015).

- A number of sub-plans have also been prepared as part of the CEMP, including a SWMP and a 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 EIAR will be implemented in full by the appointed contractor to the satisfaction of the NTA.

Measures to Protect Surface Water Quality

144 This section presents the mitigation measures that will be implemented during construction and operation 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.

145 A CEMP, including an ISMP, have been submitted with the application documentation to An Bord Pleanála (see Appendix III of this NIS).

146 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 (CIRIA) in the UK, Environmental Good Practice on Site Guide, 4th Edition (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: *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.*

Measures to Protect Surface Water Quality during Construction

147 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 silt fences, silt curtains, settlement lagoons and filter materials.
- 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.
- Weather conditions will be taken into account when planning construction activities to minimise risk of run-off 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;
    - 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.
    - 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 tarpaulin that will cover excavated material as it is being hauled off-site and wheel wash facilities will be provided at all site egress points.
- 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).
- All of the above measures implemented on site will be monitored throughout the duration of construction to ensure that they are working effectively, to implement maintenance measures if required/applicable and to address any potential issues that may arise.

Measures to Protect Surface Water Quality during Operation

148 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 7,126m^2. This increase in impermeable area will be managed for the Proposed Scheme through a combination of oversized pipes, bioretention areas and tree pits and additional permeable areas will also be provided by the softening of public realm along the routes. Where no new paved areas are proposed, the existing drainage network will be retained and utilised (See Appendix II for Proposed Drainage Designs).

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

150 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.

151 These standard drainage design controls have been proven through widespread use in developments across the country. The proposed SuDs drainage system incorporated into the engineering 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 (GDSDS, 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.

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

Confirmatory Pre-construction survey

152 The NTA will ensure that a confirmatory pre-construction non-native invasive species survey will be undertaken by a suitably qualified specialist to confirm the absence and/or extent of all Third Schedule non-native 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)

153 Where a pre-construction non-native invasive species re-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.

154 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.

155 The NTA will ensure that all control measures specified in the Proposed Schemes 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.

156 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

157 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

158 With the effective implementation of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the qualifying interest habitats/ species 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.

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

159 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Qualifying Interests of North Dublin Bay SAC and South Dublin Bay SAC, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Qualifying Interests, 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

160 According to the Natura 2000 Standard Data Form (NPWS, 2019d), 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 qualifying interest 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

161 In the Natura 2000 Standard Data Form (NPWS, 2019e), this SAC is stated to be 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

162 The Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, and the overall conservation objectives, are listed in **Table 10**.

Table 10 Qualifying Interests and Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC

Qualifying Interest(s)	Conservation Objective(s)
Rockabill to Dalkey Island SAC [003000] 1170 Reefs 1351 Harbour porpoise *Phocoena phocoena* *S.I. No. 94/2019 - European Union Habitats (Rockabill to Dalkey Island Special Area of Conservation 003000) Regulations 2019* NPWS (2013c) *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] 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal *Halichoerus grypus* 1365 Harbour seal *Phoca vitulina* *S.I. No. 294/2019 – European Union Habitats (Lambay Island Special Area Of Conservation 000204) Regulations 2019* NPWS (2013i) *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

163 In conjunction with considering the generic conservation objective for this SAC "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", the site-specific conservation objectives documents for Rockabill to Dalkey Island SAC and Lambay Island SAC also informed this assessment.

164 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Qualifying Interests within the European site. Affecting the conservation condition of the Qualifying Interests 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 qualifying interests 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

165 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 Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC is:

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

7.2.4.1 Habitat degradation/ effects on QI species as a result of hydrological impacts

166 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. 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

167 **Table 11** presents a summary of the potential impacts of the Proposed Scheme on the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, and how these impacts relate to affecting the site's conservation objectives.

Table 11 Potential Impacts/Effects on the Conservation Objectives of Rockabill to Dalkey Island SAC and Lambay Island SAC

Conservation Objectives Attribute/Measure/Target	**Potential Impacts Requiring Mitigation?**	**Are mitigation measures required?**	**Residual Impacts?**
Rockabill to Dalkey Island SAC			
Reefs [1170] 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 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 (community structure and composition) and area/distribution of this marine habitat.	Yes The mitigation measures described in Section 7.1.4 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] 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 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 along 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 The mitigation measures described in Section 7.1.4 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Lambay Island SAC			
Reefs [1170] 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 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 northern side of the Howth peninsula.	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] 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 There is no potential for impacts to occur on this habitat, as a result of degradation in surface water quality, due to the fact that this habitat lies above the high-water mark. In addition, pollution is not regarded to be a threat/ pressure which could potentially affect this SAC site (NPWS, 2019e)[24] and pollution is not regarded to be a significant threat/ pressure to this habitat type at a national level	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			

[24] NPWS (2019e).*Natura 2000- Standard Data Form- Lambay Island SAC [000204].* Updated 09-2019

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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	(Barron *et al*., 2011)[18]. Lambay Island SAC lies on the far side of the Howth Head peninsula, meaning that a significant marine water buffer exists between it and the discharge point of the Proposed Scheme (e.g. Liffey Estuary Lower and Ringsend WwTP). Given the level of separation between the Proposed Scheme and this SAC, and considering the above additional points, significant effects on this QI habitat as a result of surface water degradation can be excluded.		
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] 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 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 The mitigation measures described in Section 7.1.4 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] To maintain the favourable conservation condition of Harbour Seal in Lambay Island SAC, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Access to suitable habitat /Number of artificial barriers/ Species range within the site should not be restricted by artificial barriers to site use	Yes 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 The mitigation measures described in Section 7.1.4 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

168 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

169 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

170 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.2.6 Residual Impacts

171 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Qualifying Interests 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.

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

172 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Qualifying Interests of Rockabill to Dalkey Island SAC and Lambay Island SAC, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Qualifying Interests, 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 South Dublin Bay and River Tolka Estuary SPA [004024]

7.3.1 Ecological Baseline Description for South Dublin Bay and River Tolka Estuary SPA

173 The Natura 2000 Standard Data Form (NPWS, 2020c) 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 eelgrass *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.

7.3.2 Special Conservation Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA

The Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, and the overall conservation objective, are listed in **Table 12**.

Table 12 Special Conservation Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA

Special Conservation Interest(s)	Conservation Objective(s)
South Dublin Bay and River Tolka Estuary SPA [004024] A046 Light-bellied Brent Goose *Branta bernicla hrota* A130 Oystercatcher *Haematopus ostralegus* A137 Ringed Plover *Charadrius hiaticula* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A144 Sanderling *Calidris alba* A149 Dunlin *Calidris alpina* A157 Bar-tailed Godwit *Limosa lapponica* A162 Redshank *Tringa totanus* A179 Black-headed Gull *Chroicocephalus ridibundus* A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* A999 Wetland and Waterbirds *S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.* 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 Special Conservation Interests for this SPA

174 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.

175 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the special conservation interests within the European site. Affecting the conservation condition of the special conservation interests 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 South Dublin Bay and River Tolka Estuary SPA are presented in Section 7.3.3.5.

7.3.3 Examination and Analysis of Potential Direct and Indirect Impacts

176 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 Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, are:

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

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

177 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. 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.

178 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.

7.3.3.2 Habitat loss/fragmentation

179 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, golden plover, oystercatcher, curlew, black-headed gull and black-tailed godwit. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

The Proposed Scheme will result in the short-term loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g. light- bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least for the short-term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

180 There is no potential for impacts to occur on inland feeding SCI populations associated with South Dublin Bay and River Tolka Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- Likewise, numbers of black-headed gull recorded here during surveys undertaken are not significant with respect to its national or international populations and therefore significant effects on this species, as a result of habitat loss/ fragmentation, can be excluded;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and

- Landtake in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

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

181 There are five discrete areas of Japanese knotweed, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations present within, or in close proximity to, the Proposed Scheme. During construction and/or routine maintenance/management work, this species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features.

182 The introduction and/or spread of this non-native 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 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 Dublin Bay via the River Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. Therefore, (albeit unlikely) 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 the introduction of non-native invasive species.

7.3.3.4 Disturbance and displacement impacts

183 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 the 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 $L_{Aeq,4hr}$)**								
	10 m	**15 m**	**20 m**	**30 m**	**50 m**	**75 m**	**100 m**	**150 m**	**250 m**
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
Site compounds	78	75	72	68	64	60	58	54	50
Boundary wall construction	80	77	74	70	66	62	60	56	49
Retaining walls	81	78	75	71	67	63	61	57	53
Piling	80	77	74	70	66	62	60	56	52
Additional Structural Works (e.g. bridge construction)	80	77	74	70	66	62	60	56	52

184 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 areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

185 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 suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations of South Dublin Bay and River Tolka 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The temporary nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.3.3.5 Summary

186 **Table 14** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 14 Potential Impacts/Effects on the Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA

Conservation Objectives 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] **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** To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Population trend/Percentage change/Long term population trend stable or increasing 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 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 Special Conservation Interest 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. The introduction and/or spread of non-native 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	Yes The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	No

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
	in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.		
Roseate Tern (*Sterna dougallii*) [A192] To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Passage population: individuals/Number/No significant decline	Yes 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	Yes The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during	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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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	sources, could potentially affect the quantity and quality of prey fish and the quality the of intertidal/coastal habitats that support the Special Conservation Interest 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. The introduction and/or spread of non-native 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.	construction and operation of the Proposed Scheme. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	
Common Tern (*Sterna hirundo*) [A193] To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Breeding population abundance: apparently occupied nests (AONs)/Number/No significant decline	Yes 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	Yes The mitigation measures described in Section 7.1.4 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Distribution: roosting areas/Number; location; area (Hectares)/No significant decline	quantity and quality of prey fish and the quality the of intertidal/coastal habitats that support the Special Conservation Interest 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. The introduction and/or spread of non-native 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.	The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	
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] To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Passage population/Number of individuals/No significant decline	Yes 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	Yes The mitigation measures described in Section 7.1.4 to protect water quality in the receiving environment will ensure that surface water quality in Dublin Bay is protected during	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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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	sources, could potentially affect the quantity and quality of prey fish and the quality of intertidal/coastal habitats that support the Special Conservation Interest 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. The introduction and/or spread of non-native 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.	construction and operation of the Proposed Scheme. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	
Wetlands [A999] To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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 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 Special Conservation Interest 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. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during Construction and Operation of the Proposed Scheme.	No

7.3.4 Mitigation Measures

187 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 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

188 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

189 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

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

190 The mitigation measures presented above in Section 7.1.4 will prevent the spread of non-native invasive species to downstream European sites.

7.3.5 Residual Impacts

191 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 Special Conservation Interests and supporting wetland habitat 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.

7.3.6 Conclusion of Assessment for South Dublin Bay and River Tolka Estuary SPA

192 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of South Dublin Bay and River Tolka Estuary SPA, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, 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.

7.4 North Bull Island SPA [004006]

7.4.1 Ecological Baseline Description for North Bull Island SPA

193 The Natura 2000 Standard Data Form (NPWS,2020d) 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 Special Conservation Interests 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

194 The special conservation interests of North Bull Island SPA, and the overall conservation objective, are listed Table 15.

Table 15 Special Conservation Interests and Conservation Objectives of North Bull Island SPA

Special Conservation Interest(s)	Conservation Objective(s)
North Bull Island SPA [004006] A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A052 Teal *Anas crecca* A054 Pintail *Anas acuta* A056 Shoveler *Anas clypeata* A130 Oystercatcher *Haematopus ostralegus* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A144 Sanderling *Calidris alba* A149 Dunlin *Calidris alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica* A160 Curlew *Numenius arquata* A162 Redshank *Tringa totanus* A169 Turnstone *Arenaria interpres* A179 Black-headed Gull *Chroicocephalus ridibundus* A999 Wetlands & Waterbirds *S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.* 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 Special Conservation Interests for this SPA. 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.

195 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.

196 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the qualifying interests within the European site. Affecting the conservation condition of the Qualifying Interests/Special Conservation Interests 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 North Bull Island SPA are presented in Section 7.4.3.5.

7.4.3 Examination and Analysis of Potential Direct and Indirect Impacts

197 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 Special Conservation Interests of North Bull Island SPA, are:

- Habitat degradation/effects on QI/SCI species as a result of hydrological impacts;
- Habitat loss/ fragmentation
- 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

198 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. 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.

199 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 loss/fragmentation

200 North Bull Island SPA is designated for wintering SCI species that are known to forage and/or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose, golden plover, oystercatcher, curlew, black-headed gull and black-tailed godwit. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

201 The Proposed Scheme will result in the short-term loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light- bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

202 There is no potential for impacts to occur on inland feeding SCI populations associated with North Bull Island SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation from inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- Likewise, numbers of black-headed gull recorded here during surveys undertaken are not significant with respect to its national or international populations and therefore significant effects on this species, as a result of habitat loss/ fragmentation, can be excluded;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

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

203 There are five discrete areas of Japanese knotweed, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations present within, or in close proximity to, the Proposed Scheme. During construction and/or routine maintenance/management work, this species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features.

204 The introduction and/or spread of this non-native 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 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 Dublin Bay via the River Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes. Therefore, (albeit unlikely) 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 the introduction of non-native invasive species.

7.4.3.4 Disturbance and displacement impacts

205 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

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 areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

206 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 likely that SCI bird species associated with North Bull Island SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,

- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.4.3.5 Summary

207 **Table 16** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of North Bull Island SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 16 Potential Impacts/Effects on the Conservation Objectives of North Bull Island SPA

Conservation Objectives 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] To restore the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Population trend/Percentage change/Long term population trend stable or increasing 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 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 Special Conservation Interest 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. The introduction and/or spread of non-native 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	Yes The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during construction and operation of the Proposed Scheme.	No

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
	in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.		
Wetlands [A999] 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 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 Special Conservation Interest 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. The introduction and/or spread of non-native 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 The mitigation measures described in Section 7.1.4 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. The mitigation measures described in Section 7.1.4 will prevent the introduction and/or spread of non-native invasive species to downstream European sites during Construction and Operation of the Proposed Scheme.	No

7.4.4 Mitigation Measures

208 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

209 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

210 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

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

211 The mitigation measures presented above in Section 7.1.4 will prevent the spread of non-native invasive species to downstream European sites.

7.4.5 Residual Impacts

212 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.4.6 Conclusion of Assessment for North Bull Island SPA

213 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of North Bull Island SPA, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, 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 Howth Head Coast SPA [004113], Dalkey Islands SPA [004172] and Rockabill SPA [004014]

7.5.1 Ecological Baseline Description for Howth Head Coast SPA

214 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 EU Birds Directive. Threats to the site include walking, horse-riding and non-motorised vehicles as well as fire and fire suppression.

7.5.2 Ecological Baseline Description for Dalkey Islands SPA

215 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.

7.5.3 Ecological Baseline Description for Rockabill SPA

216 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*.

7.5.4 Special Conservation Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA

217 The Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and the overall conservation objective, are listed in Table 17.

Table 17 Special Conservation Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA

Special Conservation Interest(s)	Conservation Objective(s)
Howth Head Coast SPA [004113] A188 Kittiwake *Rissa tridactyla* *S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.* NPWS (2022b) *Conservation objectives for Howth Head Coast SPA [004113].* Generic Version 9.0. Department of Housing, Local Government and Heritage.	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.
Dalkey Islands SPA [004172] A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* *S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010* NPWS (2022e) *Conservation objectives for Dalkey Islands SPA [004172].* Generic Version 9.0. Department Housing, Local Government and Heritage.	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.
Rockabill SPA [004014] A148 Purple Sandpiper *Calidris maritima* A192 Roseate Tern *Sterna dougallii* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea*	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

Special Conservation Interest(s)	Conservation Objective(s)
S.I. No. 94/2012 - European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004014)) Regulations 2012. NPWS (2013d) *Conservation Objectives: Rockabill SPA 004014.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	

218 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 several European sites designated for similar SCI bird species to that of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA also informed this assessment. These European sites are identified in **Table 18**.

219 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the qualifying interests within the European site. Affecting the conservation condition of the special conservation interests 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 Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA are presented in Section 7.5.5.2.

7.5.5 Examination and Analysis of Potential Direct and Indirect Impacts

220 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 Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA is:

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

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

221 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

222 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.

7.5.5.2 Summary

223 **Table 18** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 18 Potential Impacts/Effects on the Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA

Conservation Objectives Attribute/Measure/Target	**Potential Impacts Requiring Mitigation?**	**Are mitigation measures required?**	**Residual Impacts?**
Howth Head Coast SPA			
Kittiwake [A188] 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 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 Special Conservation Interests 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 The mitigation measures described in Section 7.1.4 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] 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] (NPWS, 2015a).			
Passage population: individuals/Number/No significant decline	Yes	Yes	No

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Distribution: roosting areas/Number; location; area (hectares)/No significant decline	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 along 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.	The mitigation measures described in Section 7.1.4 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.	
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			
Common Tern (*Sterna hirundo*) [A193] 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] (NPWS 2015a).			
Breeding population abundance: apparently occupied nests (AONs)/Number/No significant decline	Yes 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 along 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 The mitigation measures described in Section 7.1.4 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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] 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] (NPWS 2015a).			
Passage population/Number of individuals/No significant decline	Yes 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 along 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 The mitigation measures described in Section 7.1.4 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 Arctic tern among the post-breeding aggregation of terns			
Rockabill SPA			
Purple Sandpiper (*Calidris maritima*) [A148] 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 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 northern side of the Howth peninsula, separated by a large marine waterbody.	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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Roseate Tern (*Sterna dougallii*) [A192] 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 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 The mitigation measures described in Section 7.1.4 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			
Common Tern (*Sterna hirundo*) [A193] 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 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	Yes The mitigation measures described in Section 7.1.4 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			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Disturbance at breeding site/ Level of impact/ Human activities should occur at levels that do not adversely affect the breeding common tern population	quantity and quality of prey fish species.		
Arctic Tern (*Sterna paradisaea*) [A194] 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 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 The mitigation measures described in Section 7.1.4 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			

7.5.6 Mitigation Measures

224 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

225 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

226 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.5.7 Residual Impacts

227 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of Special Conservation Interests 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.

7.5.8 Conclusion of Assessment for Howth Head Coast SPA, Dalkey Islands SPA, and Rockabill SPA

228 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests, 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.

7.6 Baldoyle Bay SPA [004016]

7.6.1 Ecological Baseline Description for Baldoyle Bay SPA

229 The Natura 2000 Standard Data Form (NPWS, 2020h) 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.

7.6.2 Special Conservation Interests and Conservation Objectives of Baldoyle Bay SPA

230 The Special Conservation Interests of Baldoyle Bay SPA, and the overall conservation objective, are listed in **Table 19**.

Table 19 Special Conservation Interests and Conservation Objectives of Baldoyle Bay SPA

Special Conservation Interest(s)	Conservation Objective(s)
Baldoyle Bay SPA [004016] A046 Light-bellied Brent Goose *Branta bernicla hrota*	To maintain or restore the favourable conservation condition of the bird species

Special Conservation Interest(s)	Conservation Objective(s)
A048 Shelduck *Tadorna tadorna* A137 Ringed Plover *Charadrius hiaticula* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A157 Bar-tailed Godwit *Limosa lapponica* A999 Wetland and Waterbirds *S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.* NPWS (2013e) *Conservation Objectives: Baldoyle Bay SPA 004016. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	listed as Special Conservation Interests for this SPA.

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 Baldoyle Bay 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 Special Conservation Interests within the European site. Affecting the conservation condition of the special conservation interests 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 Baldoyle Bay SPA are presented in Section 7.6.3.4.

7.6.3 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 Special Conservation Interests of Baldoyle Bay SPA, are:

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

7.6.3.1 Habitat degradation/effects on 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 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

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 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.

7.6.3.2 Habitat loss/fragmentation

236 Baldoyle SPA is designated for wintering SCI species that are known to forage and /or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose, ringed plover and golden plover. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

237 The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g. light-bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

238 There is no potential for impacts to occur on inland feeding SCI populations associated with Baldoyle Bay SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation from inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.6.3.3 Disturbance and displacement impacts

239 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

240 Baldoyle Bay 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 e.g. light-bellied Brent goose and golden plover. There are areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

241 As records of SCI bird species associated with the Baldoyle Bay 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 Baldoyle Bay SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations of Baldoyle Bay 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.6.3.4 Summary

242 **Table 20** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests 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 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] To restore the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Population trend/Percentage change/Long term population trend stable or increasing 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 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Wetlands [A999] 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 There is no potential 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

7.6.4 Mitigation Measures

243 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 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

244 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

245 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.6.5 Residual Impacts

246 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.6.6 Conclusion of Assessment for Baldoyle Bay SPA

247 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Baldoyle Bay SPA, 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.

7.7 Malahide Estuary SPA [004025]

7.7.1 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, 2020i), 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.

7.7.2 Special Conservation Interests and Conservation Objectives of Malahide Estuary SPA

249 The Special Conservation Interests of Malahide Estuary SPA, and the overall conservation objective, are listed in **Table 21**.

Table 21 Special Conservation Interests and Conservation Objectives of Malahide Estuary SPA

Special Conservation Interest(s)	Conservation Objective(s)
Malahide Estuary SPA [004025] A005 Great Crested Grebe *Podiceps cristatus* A046 Light-bellied Brent Goose *Branta bernicla hrota* A048 Shelduck *Tadorna tadorna* A054 Pintail *Anas acuta*	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

Special Conservation Interest(s)	Conservation Objective(s)
A067 Goldeneye *Bucephala clangula* A069 Red-breasted Merganser *Mergus serrator* A130 Oystercatcher *Haematopus ostralegus* A140 Golden Plover *Pluvialis apricaria* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A149 Dunlin *Calidris alpina* A156 Black-tailed Godwit *Limosa limosa* A157 Bar-tailed Godwit *Limosa lapponica* A162 Redshank *Tringa totanus* A999 Wetland and Waterbirds *S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.* NPWS (2013k) *Conservation Objectives: Malahide Estuary SPA 004025.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	

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 Special Conservation Interests within the European site. Affecting the conservation condition of the special conservation interests 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 7.7.3.4.

7.7.3 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 Special Conservation Interests of Malahide Estuary SPA, are:

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

7.7.3.1 Habitat degradation/effects on 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 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

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.

7.7.3.2 Habitat loss/fragmentation

255 Malahide Estuary SPA is designated for wintering SCI species that are known to forage and /or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose and black-headed gull. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g. light-bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

256 There is no potential for impacts to occur on inland feeding SCI populations associated with Malahide Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.7.3.3 Disturbance/displacement impacts

257 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

258 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 areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme. It is possible that

SCI bird species associated with the Malahide Estuary SPA currently utilise these and other suitable lands in the wider area.

259 As records of SCI bird species associated with the Malahide 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 Malahide Estuary SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.7.3.4 Summary

260 **Table 22** presents a summary of the potential impacts of the Proposed Scheme on the special conservation interests of Malahide Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 22 Potential Impacts/Effects on the Conservation Objectives of Malahide Estuary SPA

Conservation Objectives 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] To restore the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Population trend/Percentage change/Long term population trend stable or increasing 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 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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] 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 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

7.7.4 Mitigation Measures

261 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 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

262 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

263 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.7.5 Residual Impacts

264 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.7.6 Conclusion of Assessment for Malahide Estuary SPA

265 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Malahide Estuary SPA, 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.

7.8 Rogerstown Estuary SPA [004015]

7.8.1 Ecological Baseline Description for Rogerstown Estuary SPA

266 The Natura Standard Data Form (NPWS, 2020j) lists Rogerstown Estuary SPA as a relatively small estuarine system in north County Dublin. It has salt marsh and sand dune habitats, as well as agricultural fields which are of 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, non-native 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

267 The Special Conservation Interests of Rogerstown Estuary SPA, and the overall conservation objective, are listed in **Table 23**.

Table 23 Special Conservation Interests and Conservation Objectives of Rogerstown Estuary SPA

Special Conservation Interest(s)	Conservation Objective(s)
Rogerstown Estuary SPA [004015] A043 Greylag Goose *Anser anser* A046 Brent Goose *Branta bernicla hrota*	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA

Special Conservation Interest(s)	Conservation Objective(s)
A048 Shelduck *Tadorna tadorna* A056 Shoveler *Anas clypeata* A130 Oystercatcher *Haematopus ostralegus* A137 Ringed Plover *Charadrius hiaticula* A141 Grey Plover *Pluvialis squatarola* A143 Knot *Calidris canutus* A149 Dunlin *Calidris alpina alpina* A156 Black-tailed Godwit *Limosa limosa* A162 Redshank *Tringa totanus* A999 Wetlands *S.I. No. 271/2010 – European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.* NPWS (2013j) *Conservation Objectives: Rogerstown Estuary SPA 004015*. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	

268 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.

269 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the qualifying interests/special conservation interests 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 Rogerstown Estuary SPA are presented in Section 7.8.3.4.

7.8.3 Examination and Analysis of Potential Direct and Indirect Impacts

270 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 Special Conservation Interests of Rogerstown Estuary SPA, are:

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

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

271 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

272 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 Habitat loss and fragmentation

273 Rogerstown Estuary SPA is designated for wintering SCI species that are known to forage and/or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

274 The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light- bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

275 There is no potential for impacts to occur on inland feeding SCI populations associated with Rogerstown Estuary SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.8.3.3 Disturbance and Displacement impacts

276 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 *c.* 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

277 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 and oystercatcher and black-tailed godwit. There are areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

278 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 suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations of Rogerstown 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.8.3.4 Summary

279 **Table 24** presents a summary of the potential impacts of the Proposed Scheme on the special conservation interests of Rogerstown Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 24 Potential Impacts/Effects on the Conservation Objectives of Rogerstown Estuary SPA

Conservation Objectives 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 tetanus*) [A162] To restore the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:			
Population trend/Percentage change/Long term population trend stable or increasing	Yes 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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] To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows:			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
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 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

280 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 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

281 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

282 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.8.5 Residual Impacts

283 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.8.6 Conclusion of Assessment for Rogerstown Estuary SPA

284 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Rogerstown Estuary SPA, 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

285 The Natura Standard Data Form (NPWS, 2020k) lists Skerries Islands SPA as a group of three small, uninhabited islands between approximately 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

286 The Special Conservation Interests of Skerries Islands SPA, and the overall conservation objective, are listed in **Table 25**.

Table 25 Special Conservation Interests and Conservation Objectives of Skerries Islands SPA

Special Conservation Interest(s)	Conservation Objective(s)
Skerries Islands SPA [004122] A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A046 Light-bellied Brent Goose *Branta bernicla hrota* A148 Purple Sandpiper *Calidris maritima*	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA

Special Conservation Interest(s)	Conservation Objective(s)
A169 Turnstone *Arenaria interpres* A184 Herring Gull *Larus argentatus* *S.I. No. 245/2010 – European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.* NPWS (2022c) *Conservation objectives for Skerries Islands SPA [004122].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	

287 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 several European sites designated for similar SCI bird species to that of Skerries Islands SPA also informed this assessment. These European sites are identified in **Table 26.**

288 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests 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 Skerries Islands SPA are presented in Section 7.9.3.4.

7.9.3 Examination and Analysis of Potential Direct and Indirect Impacts

289 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 Special Conservation Interests of Skerries Islands SPA, are:

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

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

290 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

291 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 Habitat loss and fragmentation

292 Skerries Islands SPA is designated for wintering SCI species that are known to forage and/or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

293 The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light-bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

294 There is no potential for impacts to occur on inland feeding SCI populations associated with Skerries Islands SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- Likewise, numbers of herring gull recorded here during surveys undertaken are not significant with respect to its national or international populations and therefore significant effects on this species, as a result of habitat loss/ fragmentation, can be excluded;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.9.3.3 Disturbance and displacement impacts

295 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

296 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 areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

297 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 likely that SCI bird species associated with Skerries Islands SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.9.3.4 Summary

298 **Table 26** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Skerries Islands SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 26 Potential Impacts/Effects on the Conservation Objectives of Skerries Islands SPA

Conservation Objectives 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] 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 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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

299 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

300 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

301 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.9.5 Residual Impacts

302 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.9.6 Conclusion of Assessment for Skerries Islands SPA

303 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests of Skerries Islands SPA, 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

304 According to the Natura 2000 Standard Data Form (NPWS, 2020l), this SPA is a small uninhabited island located approximately 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

305 According to the Natura 2000 Standard Data Form (NPWS, 2020m), this SPA is an island located approximately 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

306 The Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA, and the overall conservation objectives, are listed in **Table 27**.

Table 27 Special Conservation Interests and Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA

Special Conservation Interest(s)	Conservation Objective(s)
Ireland's Eye SPA [004117] A017 Cormorant *Phalacrocorax carbo* A184 Herring Gull *Larus argentatus* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* *S.I. No. 240/2010 – European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117) Regulations 2010.* NPWS (2022h) *Conservation objectives for Ireland's Eye SPA [004117].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA
Lambay Island SPA [004069] A009 Fulmar *Fulmarus glacialis* A017 Cormorant *Phalacrocorax carbo* A018 Shag *Phalacrocorax aristotelis* A043 Greylag Goose *Anser anser* A183 Lesser Black-backed Gull *Larus fuscus* A184 Herring Gull *Larus argentatus* A188 Kittiwake *Rissa tridactyla* A199 Guillemot *Uria aalge* A200 Razorbill *Alca torda* A204 Puffin *Fratercula arctica* *S.I. No. 242/2010 – European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.* NPWS (2022f) *Conservation objectives for Lambay Island SPA [004069].* Generic Version 8.0. Department of Housing, Local Government and Heritage.	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA

307 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 several European sites designated for similar SCI bird species to that of Ireland's Eye SPA and Lambay Island SPA also informed this assessment. These European sites are identified in **Table 28**.

308 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the Special Conservation Interests 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 Ireland's Eye SPA and Lambay Island SPA are presented in Section 7.10.4.4.

7.10.4 Examination and Analysis of Potential Direct and Indirect Impacts

309 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 special conservation interests of Ireland's Eye SPA and Lambay Island SPA, are:

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

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

310 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 Liffey (Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

311 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 Ireland's Eye SPA and Lambay Island SPA.

7.10.4.2 Habitat loss and fragmentation

312 Ireland's Eye SPA and Lambay Island SPA are designated for wintering SCI species that are known to forage and/or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include herring gull. There are a number of areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

313 The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

314 There is no potential for impacts to occur on inland feeding SCI populations associated with Ireland's Eye SPA and Lambay Island SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, numbers of herring gull recorded at the CBC006WB001 site are not significant with respect to its national or international populations. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of herring gull or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and

- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.10.4.3 Disturbance and displacement impacts

315 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

316 Ireland's Eye SPA and Lambay Island SPA are 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 herring gull. There are areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

317 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), it is considered to be possible that SCI species associated with Ireland's Eye SPA and Lambay Island SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations 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 the following reasons:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.10.4.4 Summary

318 **Table 28** presents a summary of the potential impacts of the Proposed Scheme on the Special Conservation Interests of Ireland's Eye SPA and Lambay Island SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 28 Potential Impacts/Effects on the Conservation Objectives of Ireland's Eye SPA and Lambay Island SPA

Conservation Objectives 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] 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 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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			
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] 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]			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Population trend/Percentage change/Long term population trend stable or increasing	Yes 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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			

7.10.5 Mitigation Measures

319 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 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

320 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

321 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.10.6 Residual Impacts

322 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests of Ireland's Eye SPA or 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 or Lambay Island SPA.

7.10.7 Conclusion of Assessment for Ireland's Eye SPA or Lambay Island SPA

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

7.11 The Murrough SPA [004186]

7.11.1 Ecological Baseline Description for The Murrough SPA

324 According to the Natura 2000 Standard Data Form (NPWS, 2020n), 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

325 The Special Conservation Interests of The Murrough SPA and the overall conservation objectives are listed in **Table 29**.

Table 29 Special Conservation Interests and Conservation Objective(s) of The Murrough SPA

Special Conservation Interests	Conservation Objective(s)
The Murrough SPA [004186] A001 Red-throated Diver *Gavia stellata* A043 Greylag Goose *Anser anser* A046 Light Bellied Brent Goose *Branta bernicla hrota* A050 Wigeon *Anas penelope* A052 Teal *Anas crecca* A179 Black-headed Gull *Chroicocephalus ridibundus* A162 Herring Gull *Larus argentatus* A195 Little Tern *Sterna albifrons* A999 Wetlands *S.I. No. 298/2011 – European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.* NPWS (2022d) *Conservation Objectives for the Murrough SPA [004186]. Generic Version 7.0.* Department of Culture, Heritage and the Gaeltacht.	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA. 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.

326 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 (identified in **Table 30**) also informed this assessment.

327 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interests within the European site. Affecting the conservation condition of the SCI 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 SCI's in respect of The Murrough SPA are presented in Section 7.11.3.4.

7.11.3 Examination and Analysis of Potential Direct and Indirect Impacts

328 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;
- Habitat loss and fragmentation; and,
- Disturbance and displacement impacts.

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

329 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 Liffey

(Liffey_180 and Liffey_190), River Camac (Camac_040), Liffey Estuary Upper and Liffey Estuary Lower as well as a network of interconnecting and established surface or combined sewer/surface water pipes.

330 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.

7.11.3.2 Habitat Loss and Fragmentation

331 The Murrough SPA is designated for wintering SCI species that are known to forage and/or roost at sites across Dublin, such as amenity grasslands and playing pitches. In respect of the Proposed Scheme, these species include light-bellied Brent goose and black headed gull. There is one area of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme, namely amenity grassland pitches at Liffey Gaels GAA Club adjacent to the Chapelizod Bypass / Con Colbert Road, referred to as CBC0006WB001.

The Proposed Scheme will result in the temporary loss of 0.446ha of this GA2 habitat suitable to support breeding gull and wintering bird species (e.g., light- bellied Brent goose) at the Liffey Gaels GAA Club (referred to as CBC0006WB001). This site will be lost, at least in the short term, during the construction period of the Proposed Scheme as it will be used as a Construction Compound to facilitate nearby works.

332 There is no potential for impacts to occur on inland feeding SCI populations associated with The Murrough SPA, in light of their conservation objectives, as a consequence of habitat loss/fragmentation of inland feeding/roosting sites due to the following reasons:

- According to the data collected during winter bird surveys undertaken here during both the 2020-2021 and 2021-2022 winter bird season, the CBC006WB001 site is not deemed to be a significant inland foraging resource for light-bellied Brent goose, given the infrequent nature of the recorded use of the site by this species. Therefore, the temporary loss of this site during the construction of the Proposed Scheme will not result in any likely significant effect on the conservation status of light-bellied Brent goose or undermine the conservation objectives of any SPAs in the vicinity which are designated for this species;
- Likewise, numbers of black-headed gull recorded here during surveys undertaken are not significant with respect to its national or international populations and therefore significant effects on this species, as a result of habitat loss/ fragmentation, can be excluded;
- The absence or low frequency of occurrence of these SCI bird species recorded on lands located within the footprint of the Proposed Scheme, suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis; and
- Land take in the proposed compound area is temporary in nature and will be returned to GA2 habitat during the Operational Phase of the Proposed Scheme.

7.11.3.3 Disturbance and Displacement impacts

333 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** in Section 7.3.3.4 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme.

334 The Murrough SPA is designated for a number of wintering SCI species that it is considered (precautionary approach in light of absence of survey data) could forage and/or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied Brent goose, greylag goose, wigeon, teal and gull species including black headed and herring gull. There are areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme.

335 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 and black-headed gull), it is likely that SCI bird species associated with The Murrough SPA currently utilise suitable lands in the wider area. However, no significant effects will occur on any SCI bird species populations 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:

- The low numbers of species recorded using the CBC006WB001 Liffey Gaels GAA pitch during field surveys undertaken in both the 2020-2021 and 2021-2022 winter season, which suggests that these species do not regularly use or rely upon these lands as foraging and/or roosting habitat, and are likely to use other suitable sites available in the wider area on a similar or more regular basis;
- The fact that there are no known inland feeding sites for light-bellied Brent geese, as identified in a study undertaken by Scott Cawley Ltd. in 2017 (Scott Cawley Ltd., 2017), within the 300m disturbance ZoI of the Proposed Scheme;
- 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 Blackrock College, DCC Brent Field Ringsend, Fairview Park, St. Anne's Park, Royal Dublin Golf Course on Bull Island and Clontarf Golf Club; and,
- The short term nature of any disturbance related impacts associated with the construction of the Proposed Scheme, which is expected to last for 24 months. Following the completion of construction, disturbance levels will over time return to baseline conditions and as a result suitable lands will become available again as foraging and/or roosting habitat for these SCI species.

7.11.3.4 Summary

336 **Table 30** 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 30 Potential Impacts/Effects on the Conservation Objectives of The Murrough SPA

Conservation Objectives 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]; 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, 2013g); South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015a); Wexford Harbour and Slobs SPA [004076] (NPWS, 2012b); North Bull Island SPA [004006] (NPWS, 2015b); and Boyne Estuary SPA [004080] (NPWS, 2013h			
Population trend/% change/Long term population trend stable or increasing	Yes 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 Special Conservation Interest 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 The mitigation measures described in Section 7.1.4 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/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			
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			
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			
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			
Little Tern [195] 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 Little Tern in Boyne Estuary SPA [004080] (NPWS, 2013h)			

Conservation Objectives Attribute/Measure/Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts?
Breeding population abundance: apparently occupied nests (AONs)/Number/No significant decline	No There is no potential for impacts to occur on this SCI bird species population at The Murrough SPA, in light of its conservation objectives, as a consequence of disturbance to areas used by these birds due to increased levels of distal disturbance impacts	No	No
Productivity rate: fledged young per breeding pair/Mean number/No significant decline			
Distribution: breeding colonies/Number; location; area (ha)/No significant decline			
Prey biomass available/Kg's/No significant decline			
Barriers to connectivity/Number; location; shape; area (ha)/No significant decline			
Disturbance at the breeding site/Level of impact/Human activities should occur at levels that do not adversely affect the breeding little tern population			

7.11.4 Mitigation Measures

337 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

338 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during construction of the Proposed Scheme.

Measures to Protect Surface Water Quality during Operation

339 The mitigation measures presented above in Section 7.1.4 will protect surface water quality during operation of the Proposed Scheme.

7.11.5 Residual Impacts

340 With the inclusion of appropriate mitigation, the Proposed Scheme poses no risk of affecting the conservation objectives, or the favourable conservation condition, of the Special Conservation Interests 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.

7.11.6 Conclusion of Assessment for The Murrough SPA

341 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the Special Conservation Interests including its supporting wetland habitat of The Murrough SPA, the potential impacts, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the Special Conservation Interests it has been concluded that the Proposed Scheme does not pose a risk of adversely affecting (either directly or indirectly) the integrity of The Murrough SPA.

8 Summary of Mitigation Measures and Residual Impacts

8.1 Summary of Mitigation Measures

342 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 31**, identifying the specific mitigation measures required for each relevant European site.

343 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.

Table 31 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	Non-native Invasive Species	Air Quality	Disturbance / Displacement	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Non-native Invasive Species	Air Quality	Disturbance / Displacement	
North Dublin Bay SAC	X	✓ Section 7.1.4 / Section 5.4 of CEMP	X	✓ Section 7.1.4 / Section 5.3 of the CEMP	X	X	X	✓ Section 7.1.4 / Section 5.4 of CEMP	X	✓ Section 7.1.4 / Section 5.3 of the CEMP	X	X	No
South Dublin Bay SAC	X	✓ Section 7.1.4 / Section 5.4 of CEMP	X	✓ Section 7.1.4 / Section 5.3 of the CEMP	X	X	X	✓ Section 7.1.4 / Section 5.4 of CEMP	X	✓ Section 7.1.4 / Section 5.3 of the CEMP	X	X	No
Rockabill to Dalkey Island SAC	X	✓ Section 7.2.5 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.2.5 / Section 5.4 of CEMP	X	X	X	X	No
Lambay Island SAC	X	✓ Section 7.2.5 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.2.5 / Section 5.4 of 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	Non-native Invasive Species	Air Quality	Disturbance / Displacement	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Non-native Invasive Species	Air Quality	Disturbance / Displacement	
South Dublin Bay and River Tolka Estuary SPA	X	✓ Section 7.3.4 / Section 5.4 of CEMP	X	✓ Section 7.3.4 / Section 5.3 of the CEMP	X	X	X	✓ Section 7.3.4 / Section 5.4 of CEMP	X	✓ Section 7.3.4 / Section 5.3 of the CEMP	X	X	No
North Bull Island SPA	X	✓ Section 7.4.4 / Section 5.4 of CEMP	X	✓ Section 7.4.4 / Section 5.3 of the CEMP	X	X	X	✓ Section 7.4.4 / Section 5.4 of CEMP	X	✓ Section 7.4.4 / Section 5.3 of the CEMP	X	X	No
Howth Head Coast SPA	X	✓ Section 7.5.6 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.5.6 / Section 5.4 of CEMP	X	X	X	X	No
Dalkey Islands SPA	X	✓ Section 7.5.6 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.5.6 / Section 5.4 of CEMP	X	X	X	X	No
Rockabill SPA	X	✓ Section 7.5.6 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.5.6 / Section 5.4 of 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	Non-native Invasive Species	Air Quality	Disturbance / Displacement	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Non-native Invasive Species	Air Quality	Disturbance / Displacement	
Baldoyle Bay SPA	X	✓ Section 7.6.4 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.6.4 / Section 5.4 of CEMP	X	X	X	X	No
Malahide Estuary SPA	X	✓ Section 7.7.4 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.7.4 / Section 5.4 of CEMP	X	X	X	X	No
Rogerstown Estuary SPA	X	✓ Section 7.8.4 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.8.4 / Section 5.4 of CEMP	X	X	X	X	No
Skerries Islands SPA	X	✓ Section 7.9.4 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.9.4 / Section 5.4 of CEMP	X	X	X	X	No
Ireland's Eye SPA	X	✓ Section 7.10.5 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.10.5 / Section 5.4 of CEMP	X	X	X	X	No
Lambay Island SPA	X	✓ Section 7.10.5 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.10.5 / Section 5.4 of 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	Non-native Invasive Species	Air Quality	Disturbance / Displacement	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Non-native Invasive Species	Air Quality	Disturbance / Displacement	
The Murrough SPA	X	✓ Section 7.11.4 / Section 5.4 of CEMP	X	X	X	X	X	✓ Section 7.11.4 / Section 5.4 of CEMP	X	X	X	X	No

8.2 Summary of Residual Impacts

344 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 Qualifying Interest habitats and species and/or SCI species of the European sites assessed in Section 7. There are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of such European sites. As is confirmed by the Water Framework Directive 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. A matrix identifying those aspects which will be subject to mitigation measures and the residual impacts post mitigation is provided in **Table 31** for the relevant European sites.

9 In-Combination Assessment

345 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 zone of influence (ZoI).

346 The 16 European sites within the ZoI of the Proposed Scheme are:

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

347 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 the land use plans referred to in this section are included in Section 9.2.

9.1 Analysis of Potential In Combination Effects

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

349 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 below in **Table 32**.

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 32** were identified and assessed. This assessment is presented below in **Table 33** and **Table 34**.

Table 32 Land Use Plans and Programmes Considered for the In-Combination Assessment

National Plans
National Energy & Climate Plan 2021-2030
National Spatial Strategy for Ireland 2002-2020
Project Ireland 2040 – Building Ireland's Future[25]
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) Report 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
Greater Dublin Area Cycle Network Plan 2013
Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016
County/Local Plans
Fingal Development Plan 2017-2023
Fingal Biodiversity Action Plan 2010-2015
Fingal County Council Climate Action Plan 2019-2024 • Donabate Local Area Plan 2016 • Rivermeade Local Area Plan 2018 • Barnhill Local Area Plan 2019 • Kinsaley Local Area Plan 2019 • Dublin Airport Local Area Plan 2020
Dublin City Development Plan 2016-2022
Dublin City Biodiversity Action Plan 2015-2020
Dublin City Council Climate Action Plan 2019-2024 • Clongriffin-Belmayne Local Area Plan 2012-2018 • George's Quay Local Area Plan 2012-2022 • Ballymun Local Area Plan 2017 • The Liberties Local Area Plan 2009-2020 • Naas Road Local Area Plan 2013-2023 • Park West- Cherry Orchard Local Area Plan 2019
South Dublin County Council Development Plan 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

[25] Together the National Development Plan and the National Framework are referred to as Project Ireland 2040: Building Ireland's Future

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

Dún Laoghaire- Rathdown Development Plan (2022-2028)

Dún Laoghaire- Rathdown Biodiversity Plan 2009-2013; Dún Laoghaire- Rathdown Biodiversity Plan (current draft under review)

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

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

Wicklow County Development Plan 2016-2022

Wicklow Biodiversity Plan 2010-2015

Wicklow County Council Climate Change Adaptation Strategy 2019

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

Projects

- Southern Port Access Route (SPAR)
- Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7/M9) to provide an additional lane in each direction
- Enhancements of the N2/M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non-motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles
- N3 Castaheany Interchange Upgrade
- 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
- Air insulated switchgear 110kV transmission substation. Platin, Duleek
- Construction of a new distributor road and junction to the southwest of Kells town centre. Kells
- Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown.
- FCC/12/0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide.
- Alternations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp
- 110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and waste water holding tank and security fencing. 110kV overhead line grid connection cabling, upgrade of existing tracks and provision of new site access roads with all associated site development and ancillary works. Timahoe East
- 15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings. Dublin Port.
- A residential development with ancillary commercial uses (retail unit, café and créche) 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.
- Snugborough Interchange Upgrade
- Park development project at the Racecourse Park
- 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
- Liffey Valley to City Centre Core Bus Corridor Scheme
- Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme
- Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
- Kimmage to City Centre Core Bus Corridor Scheme
- Bray to City Centre Core Bus Corridor Scheme
- Belfield / Blackrock to City Centre Core Bus Corridor Scheme
- Ringsend to City Centre Core Bus Corridor Scheme
- A range of Strategic Housing Developments
- A range of Irish Water Projects

Table 33 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 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. In relation to transport the plan aims to: • make growth less transport intensive through better planning, remote and home-working and modal shift to public transport • Increase the renewable biofuel content of motor fuels • Set targets for the conversion of public transport fleets to zero carbon alternatives.	No potential impact pathways to European sites. 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 Zone of Influence (ZoI) of the proposed scheme.	No in combination impact. 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.
National Development Plan Ireland 2021-2030 As part of Project Ireland 2040 the National Development Plan sets out the Government's over-arching investment strategy and budget for the period 2021-2030. The plan aims to balance demand for public investment across all sectors and regions of Ireland with a major focus on the delivery of infrastructure projects.	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. However, future developments implemented through the National Development Plan have the potential to lie either within those European	No in combination impact. 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 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

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
	sites, or be situated in a location where they may be within the ZoI of those European sites.	are Fingal CDP (2017-2023), Dublin City CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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 – The National Planning Framework 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	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	No in combination impact. 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

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
Greater Dublin Area (GDA). This area includes Dublin City and the following surrounding lands and counties: Dun Laoghaire/Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow) such as the DART expansion programme, Bus Connects Scheme, and investment at Dublin Port, amongst others. Key objectives of the plan include: • Managing sustainable growth of cities, towns and villages • Providing accessibility between key urban centres • Enhance public transport in a sustainable manner	either within those European sites, or be situated in a location where they may be within the ZoI of those European sites.	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 (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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 An Infrastructure investment programme forms the core of this plan. There are four key investment areas:	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,	No in combination impact. Any projects required to achieve the objectives of this plan must comply with the requirements and obligations of EU and Irish planning and environmental

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
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 expansion program and GDA Cycle Network Plan, amongst others.	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.	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 (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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	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	No in combination impact. Any projects required to achieve the objectives of smarter travel must comply with the requirements 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
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.	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.	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 (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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	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	No in combination impact

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
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.	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	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 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 are no potential impact pathways by which it could adversely affect the integrity of any European sites.	No in combination impact 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 Air Pollution Control Programme (NAPCP) Report 2021 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 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
National Marine Planning Framework 2018 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 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, 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. Any projects required to achieve the objectives of the National Marine Planning Framework 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.). 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 (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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 Marine Planning Framework poses no identifiable risk of resulting in

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
		adverse effects on the integrity of any European sites in combination with the Proposed Scheme.
Water Services Strategic Plan 2015 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 CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022), NTA and TII. There is the potential that developments implemented under the Water Services Strategic Plan could affect European sites within the ZoI of the Proposed Scheme. The Water Services Strategic Plan 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 Water Services Strategic 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. Any projects required to achieve the objectives of the Water Services Strategic 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 CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). Considering the environmental protection policies included within those land use plans, and that alone 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
		Proposed Scheme will not adversely affect the integrity of any European sites, Water Services Strategic Plan 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 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. 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 CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). 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.
Greater Dublin Area Cycle Network Plan 2013 The Greater Dublin Area Cycle Network Plan sets out the goals to promote and provide cycling infrastructure across the Greater Dublin Area, and the actions to achieve these goals.	The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022-2028, 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. 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:	No in combination impact. The Greater Dublin Area Cycle Network Plan 2013 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**.** The Greater Dublin Area Cycle Network Plan 2013contains 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. Considering the protective environmental policies contained within the Greater Dublin Area Cycle Network Plan 2013, 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
	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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 Scheme to adversely affect the integrity of any European sites. Any projects required to achieve the objectives of the Greater Dublin Area Cycle Network Plan 2013 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 CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). 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. 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). Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity

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
		of any European sites, the Greater Dublin Area Cycle Network Plan 2013 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 This study includes the following main elements within the Eastern catchment: 1. Flood Risk Assessments 2. Flood Risk Mapping **3.** Flood Risk Management Plans	There is the potential that developments implemented under the Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016 could affect European sites within the ZoI of the Proposed Scheme. Given the nature of the study, future developments implemented through CFRAM 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. CFRAM Studies and their product Flood Risk Management Plans have undergone AA. 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. 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.). 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.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 in combination with 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
Fingal Development Plan 2017-2023 The Fingal CDP makes reference to residential development, zoning and infrastructure targets/obligations.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries	No in combination impact. 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. 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. Considering this, 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
	Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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. 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 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. 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. 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.

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
Donabate Local Area Plan 2016 The LAP makes reference to phased housing development targets/obligations.	The Proposed Scheme lies with the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA,	No in combination impact. The Donabate Local Area Plan 2016 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**.** 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. Considering the protective environmental policies contained within the Donabate Local Area Plan 2016, 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
	Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	
Rivermeade Local Area Plan 2018 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 lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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:	No in combination impact. The Rivermeade Local Area Plan 2018 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore there will be no adverse effects on any European sites as a result of implementation of the plan**.** 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. 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

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/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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	Scheme to adversely affect the integrity of any European sites.
Barnhill Local Area Plan 2019 The LAP makes reference to residential development targets / obligations.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. The Barnhill Local Area Plan 2019 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.**

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 including: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 Barnhill 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. 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.

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
Kinsaley Local Area Plan 2019 The LAP makes reference to commercial and residential development targets/obligations.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, and some of the objectives and policies of the Kinsaley 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. 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: 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	No in combination impact. The Kinsaley Local Area Plan 2019 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** 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. 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.

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
	SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	
Dublin Airport Local Area Plan 2020 The LAP makes reference to airside and landside infrastructure targets/obligations.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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 impact. The Dublin Airport Local Area Plan 2020 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan. 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. Considering the protective environmental policies contained within the Dublin Airport Local Area Plan

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
	way, but themselves will not affect the conservation objectives of European sites including: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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.
Dublin City Development Plan 2016-2022 The Dublin City CDP makes reference to improvement of the public transport network and facilities for	The Proposed Scheme lies partially within the functional area of the Dublin City Development Plan 2016-2022 and many of the objectives and policies therein, have the potential to act in combination with	No in combination impact. The Dublin City Development Plan 2016 - 2022 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

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
pedestrians and cyclists and targets / obligations to create strategic development and regeneration areas.	the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species(for example to downstream European sites North Dublin	European sites as a result of implementation of the plan. The Dublin City Development Plan 2016-2022 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Dublin City Development Plan 2016-2022, 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
	Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	
Dublin City Biodiversity Action Plan 2015-2020 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. 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. 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 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. 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:	No in combination impact. The plan is intended to improve the quality of the environment within its ZoI. 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 CDP (2016-2023), South Dublin CDP (2016-2022), Dún Laoghaire-Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022). All of these land use plans contain objectives and policies to ensure the protection of European sites from

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/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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 spatial jurisdiction (see discussions on the relevant land use plans in the sections below). 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, CFRAM 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 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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	No in combination impact. The Clongriffin-Belmayne Local Area Plan 2012-2018 was subject to AA screening, and 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**.**

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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species(for example to downstream European sites North Dublin	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. 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
	Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA)	
George's Quay Local Area Plan 2012-2022 The LAP makes reference to mixed use development targets/obligations, and targets associated with the improvement of pedestrian and cycling infrastructure.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, and some of the objectives and policies of the George's Quay Local Area Plan 2012-2022, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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	No in combination impact. The George's Quay Local Area Plan 2012-2022 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan. The George's Quay Local Area Plan 2012-2022 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the George's Quay Local Area Plan 2012-2022, 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
	Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	
Ballymun Local Area Plan 2017 The LAP makes reference to residential development targets/obligations, and targets associated with the development of M50 lands and construction of outstanding road infrastructure e.g. Metro North.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, and some of the objectives and policies of the Ballymun Local Area Plan 2017, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including:	No in combination impact. The Ballymun Local Area Plan 2017 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** The Ballymun Local Area Plan 2017 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Ballymun Local Area Plan 2017, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use

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/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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.
The Liberties Local Area Plan 2009-2020 This LAP makes reference to increasing local authority housing, installing new infrastructure, and targets/obligations associated with creating new routes for pedestrians and cyclists.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, and some of the objectives and policies of the Liberties Local Area Plan 2009-2020, have the potential to act in combination with the Proposed	No in combination impact. The liberties Local Area Plan 2009-2020 lies within the administrative boundaries of Dublin City Council, therefore, any plans or projects arising from the LAP will also require to abide by the protective environmental policies contained within the Dublin City Development

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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species(for example to downstream European sites North Dublin	Plan 2016-2022 and will be subject to any mitigation identified in the NIS undertaken for the DCC plan. Any future projects arising from the LAP will also be subject to project specific AA planning requirements. The Dublin City Development Plan 2016-2022contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Dublin City Development Plan 2016-2022, in the AA the plan was subject to, 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
	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 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 within the functional area of the Dublin City Development Plan 2016-2022 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. 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: 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	No in combination impact. The Naas Road Local Area Plan 2013-2023 was subject to AA screening prior to its adoption thereby finding the plan did not have the potential to result in likely significant effects on European sites, and that an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** 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. 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
	SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	
Park West- Cherry Orchard Local Area Plan 2019 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, and some of the objectives and policies of the Park West- Cherry Orchard 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. 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:	No in combination impact. The Park West- Cherry Orchard Local Area Plan 2019 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan. The Park West- Cherry Orchard 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. Considering the protective environmental policies contained within the Park West- Cherry Orchard Local

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/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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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.
South Dublin County Development Plan 2022- 2028 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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	No in combination impact. The South Dublin County Development Plan 2022- 2028, 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**.**

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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North Dublin Bay SAC, South	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. 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
	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 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. 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. 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 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. No, there are no potential impact pathways to European sites. 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. 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 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. The Tallaght Town Centre Local Area Plan 2020 was subject to AA screening, and AA prior to its adoption and therefore, subject to any mitigation identified,

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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European sites North	there will be no adverse effects on any European sites as a result of implementation of the plan. 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. 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.

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 Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	
Liffey Valley Town Centre Local Area Plan 2008 This LAP makes reference to commercial and residential development targets/obligations, and targets to provide an integrated public transport network, and secure pedestrian and cycle networks.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Liffey Valley Town Centre Local Area Plan 2008, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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,	No in combination impact. The Liffey Valley Town Centre Local Area Plan 2008 lies within the administrative boundaries of South Dublin County Council, therefore, any plans or projects arising from the LAP will also be required to abide by the protective environmental policies contained within the South Dublin County Development Plan 2022- 2028, and will be subject to any mitigation identified in the NIS undertaken for the SDCC plan. Any future projects arising from the LAP will also be subject to project specific AA requirements. 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. Considering the protective environmental policies contained within the South Dublin County Development Plan 2022- 2028, the AA that the plan was subject to, 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

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
	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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	Scheme to adversely affect the integrity of any European sites.
Dún Laoghaire- Rathdown Development Plan (2022-2028) The Dún Laoghaire- Rathdown CDP makes reference to commercial and residential development (including Cherrywood SDZ) targets/obligations, and targets associated with providing suitable community infrastructure.	The Proposed Scheme lies partially within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site	No in combination impact. The Dún Laoghaire- Rathdown Development Plan 2022-2028 was subject to AA screening, and 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. The Dún Laoghaire- Rathdown Development Plan 2022-2028 contains objectives and policies to ensure the protection of European sites, including surface water

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
	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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Dún Laoghaire- Rathdown 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
Dún Laoghaire- Rathdown Biodiversity Plan 2009-2013; Dún Laoghaire- Rathdown Biodiversity Plan (current draft under review) 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. 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. 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.
Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024 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. 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. 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.
Deansgrange Local Area Plan 2010-2020 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Deansgrange Local Area Plan 2010-2020, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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	No in combination impact. The Deansgrange Local Area Plan 2010-2020 lies within the administrative boundaries of Dún Laoghaire Rathdown, therefore, any plans or projects arising from the LAP will also require to abide by the protective environmental policies contained within the Dún Laoghaire Rathdown Development Plan 2022-2028 and will be subject to any mitigation identified in the NIS undertaken for the DLCC plan. Any future projects arising from the LAP will also be subject to project specific AA requirements.

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
	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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 Dún Laoghaire Rathdown 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. Considering the protective environmental policies contained within the Dún Laoghaire Rathdown Development Plan 2022-2028, the AA that the plan was subject, 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
Stillorgan Local Area Plan 2018-2024 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries	No in combination impact. The Stillorgan Local Area Plan 2018-2024 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** 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. 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
	Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	
Blackrock Local Area Plan 2015-2021 This LAP makes reference to redevelopment of Frascati and Blackrock shopping centres, residential development targets/obligations, and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Blackrock Local Area Plan 2015-2021, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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	No in combination impact. The Blackrock Local Area Plan 2015-2021 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan**.** The Blackrock Local Area Plan 2015-2021 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Blackrock Local Area Plan 2015-2021, and that alone the Proposed Scheme will not

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
	way, but themselves will not affect the conservation objectives of European sites including: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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.
Woodbrook-Shanganagh Local Area Plan 2017-2024 This LAP makes reference to residential development targets/obligations, and targets associated with the	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Woodbrook-Shanganagh Local Area Plan 2017-2024,	No in combination impact. The Woodbrook-Shanganagh Local Area Plan 2017-2024 was subject to AA screening prior to its adoption. The AA screening confirmed that the plan did not have the potential to result in likely significant effects on

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
improvement of infrastructure connecting pedestrians, cycling and public transport.	have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species	European sites, therefore an NIS was not required. Therefore, there will be no adverse effects on any European sites as a result of implementation of the plan. 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. 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
	(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 2016-2022 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Wicklow County Development Plan 2016-2022, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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 impact. The Wicklow County Development Plan 2016-2022 was subject to AA screening, and 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**.** The Wicklow County Development Plan 2016-2022 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Wicklow County Development Plan 2016-2022, 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
	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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).	
Wicklow Biodiversity Plan 2010-2015 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. 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. 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 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. 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. 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.

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
Bray Municipal District Local Area Plan 2018-2024 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 within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, 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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries	No in combination impact. The Bray Municipal District Local Area Plan 2018-2024 was subject to AA screening, and 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. 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. 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 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
	Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).	
Bray Town Development Plan 2011-2017 This LAP makes reference to redevelopment of residential and industrial areas, and mixed-use development targets/obligations. It also mentions targets to provide an integrated network for walking, cycling and public transport, and facilitation of a LUAS connection to Bray.	The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and South Dublin County Development Plan 2022- 2028, however some of the objectives and policies of the Bray Town Development Plan 2011-2017, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect 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 including: 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,	No in combination impact. The Bray Town Development Plan 2011-2017 lies within the administrative boundaries of Wicklow City Council therefore, any plans or projects arising from the LAP will also require to abide by the protective environmental policies contained within the Wicklow County Development Plan 2016-2022 and will be subject to any mitigation identified in the NIS undertaken for the WCC plan. Any future projects arising from the LAP will also be subject to project specific AA requirements. The Wicklow County Development Plan 2016-2022 contains objectives and policies to ensure the protection of European sites, including surface water quality, from any projects proposed within the plan area. Considering the protective environmental policies contained within the Wicklow County Development Plan 2016-2022, the AA that the plan was subject to, 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

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
	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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).	Scheme to adversely affect the integrity of any European sites.

Table 34 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 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. 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. The main potential for in-combination effects is habitat degradation/effects on QI/SCI species as a result of hydrological impacts; for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Coast SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA,	No in-combination effect. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough 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 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-motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles	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.
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. 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:	No in-combination effect. The proposed N3 Castaheaney 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. The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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 Castaheany Interchange Upgrade and has

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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.
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. 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA,	No in-combination effect. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. The proposed reconfiguration works 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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 N30N4 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 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. The potential for in-combination effects could be as a result of: Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments	No in-combination effect. The proposed the Reconfiguration of the N4 from its junction with the M50 to Leixlip 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. The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and AA Screening

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	Report/Natura Impact Statement, if required. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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. 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: 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,	No in-combination effect. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 Clonburris SDZ roads development, 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 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	No in-combination effect. The proposed DART + Programme West project must comply with all applicable planning and environmental approval requirements, and be in accordance with

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		measurable in some way, but themselves will not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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. In granting permission for the DART + Programme 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 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. The potential for in-combination effects could be as a result of: 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 effect. 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. The proposed link road 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 link road, it will be necessary to demonstrate that the

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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. 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 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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,	No in-combination effect. 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. The proposed N3 widening 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 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. Considering the lack of physical overlap between the Proposed Scheme and the proposed N3 widening project between

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project 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).	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 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 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	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	etc.). These land use plans contain objectives and policies to ensure the protection of European sites. The proposed Lucan LUAS 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 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. Considering the lack of physical overlap between the Proposed Scheme and the 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 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. The potential for in-combination effects could be as a result of: 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 effect. 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. 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 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 Will the project 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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 DART+ Programme South West and has included mitigation in 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. 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. In granting permission for the M1 motorway upgrades it will be necessary to determine that the project will not

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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 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 Junction upgrades and other capacity improvements on the M1 motorway 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,	No in-combination effect. 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. 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. 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 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project 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).	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. 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.	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites. 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. 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. 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,

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of 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+ Tunnel Element (Kildare Line to Northern 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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 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 Potential Metro South alignment: SW option and

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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.
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. 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. The main potential for in-combination effects is 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 SAC, Baldoyle Bay SPA, Ireland's	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).	which could adversely affect 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 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. The potential for in-combination effects could be as a result of: 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,	No in-combination effect. 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. The proposed link road 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. Considering the lack of physical overlap between the Proposed Scheme and the 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA,	No in-combination effect. 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. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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 site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme	No in-combination effect. The proposed Poolbeg LUAS project must comply with all applicable planning and environmental approval requirements

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. The proposed LUAS 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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 Poolbeg LUAS and has 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. The proposed link road 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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 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 Leopardstown Link Road Phase 2and has

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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.
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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA,	No in-combination effect. 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. The proposed link road 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 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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	No in-combination effect.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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	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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 Poolbeg SDZ roads development project and has included mitigation in that regard to prevent any such adverse effects.
MP24	Glenamuck District Distributor Road	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.
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	No in-combination effect. The proposed DART+ Programme Coastal North 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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	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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 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. The potential for in-combination effects could be as a result of: Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments	No in-combination effect. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 M50 widening 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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 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.
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.	No in-combination effect. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 DART+ Coastal South 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 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. 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 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

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			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. The potential for in-combination effects could be as a result of: 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,	No in-combination effect. 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. The proposed relief road 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 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 previous column in

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	this table, either alone or in combination with the Proposed Scheme. 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. 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 in-combination effect.

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		no potential impact pathways by which this project could adversely affect the integrity of any European sites within the ZoI of the Proposed Scheme.	
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.
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. The potential for in-combination effects could be as a result of: 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,	No in-combination effect. 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. The proposed MetroLink will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. In granting permission for MetroLink it will be necessary to determine that the

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		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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 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	No in-combination effect.

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		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. The only potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European	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. 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 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. 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

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		sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 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. The potential for in-combination effects could be as a result of:	No in-combination effect. 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. Proposals arising out of the cycle network plan will be subject to planning consent,

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		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. 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 column in this table, either alone or in combination with the Proposed Scheme. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA,	No in-combination effect. 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. The proposed Dublin Array - offshore windfarm 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 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

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		Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	this table, either alone or in combination with the Proposed Scheme. 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. 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	As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the	No in-combination effect. The proposed Southern Port Access Route (SPAR) project must comply with

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	which will 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.	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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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	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. The proposed SPAR will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 Southern Port Access Route (SPAR and has included mitigation in that regard to prevent any such adverse effects.
MP37	Snugborough Interchange Upgrade	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, non-native invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
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 in-combination effect.

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		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, non-native invasive species, air quality or disturbance/displacement to SCI species).	
304799	Construction of a new distributor road and junction to the southwest of Kells town centre. Kells	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, non-native invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
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.	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	objectives and policies to ensure the protection of European sites. 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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 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. The potential for in-combination effects could be as a result of: 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,	No in-combination effect. 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. The proposed project has been subject to planning consent, including preparation of an EIAR and Natura Impact Statement. In granting permission for the project, it was 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. Considering the lack of physical overlap between the Proposed Scheme and the consented Broadmeadow Way Greenway 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 consented Broadmeadow Way Greenway 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and,	No in-combination effect. 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. 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.

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		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 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. 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.
303249	110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities	There is no physical overlap between the Proposed Scheme and this project and there are	No in-combination effect.

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	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	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, non-native invasive species, air quality or disturbance/displacement to SCI species).	
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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. 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 demonstrate that the project will not result in adverse effects on the integrity

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 this project 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. 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.

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306583	A residential development with ancillary commercial uses (retail unit, café and créche) 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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).	No in-combination effect. 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. 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 proposed residential in named townlands around Shankill project, the

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, 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, 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).	objectives and policies to ensure the protection of European sites. 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 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 development for Brexit Infrastructure at Dublin Port and has included mitigation in 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, non-native 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	No in-combination effect. 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

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		not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, 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, 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).	etc.). These land use plans contain objectives and policies to ensure the protection of European sites. 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 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,

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			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 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening

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		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			River Poddle flood alleviation works and has included mitigation in that regard to prevent any such adverse effects.
311315	Park development project at the Racecourse Park (Baldoyle)	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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA,	No in-combination effect. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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.
309146, 309773	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	No in-combination effect. The proposed project to install 2 no. 110kV transmission lines and a 110kV Gas

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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	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. 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 proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation , the environmental protection policies

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 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.
-	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.	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	etc.). These land use plans contain objectives and policies to ensure the protection of European sites. 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. 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. 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 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 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 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. The proposed Swords 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. 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. In granting permission for Bus Corridor Scheme, 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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. 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 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	No in-combination effect.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European	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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	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 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.	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 Blanchardstown to City Centre Core Bus Corridor Scheme and has 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. The potential for in-combination effects could be as a result of: 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,	No in-combination effect. 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. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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 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 Liffey Valley to City Centre Core Bus

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA,	No in-combination effect. 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. 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. 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 Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Rogerstown Estuary SPA, and The Murrough SPA); and, 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 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. 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	No in-combination effect. The proposed Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme project must comply with all applicable

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 Templeogue/Rathfarnham to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects.
-	Kimmage 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. The potential for in-combination effects could be as a result of:	No in-combination effect. The proposed Kimmage 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 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 SAC, 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, 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. 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. Considering the lack of physical overlap between the Proposed Scheme and the Kimmage 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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 Kimmage to City Centre Core Bus Corridor Scheme and has included 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. The potential for in-combination effects could be as a result of: 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	No in-combination effect. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	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 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 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 Bray to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects.
-	Belfield/ Blackrock to City Centre Core Bus Corridor	As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any	No in-combination effect.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream European	The proposed Balfield / Blackrock 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. 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. 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. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and 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. 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.
-	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. The potential for in-combination effects could be as a result of:	No in-combination effect. 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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. 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. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
			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 (*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. The potential for in-combination effects could be as a result of: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA,	No in-combination effect. 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. Proposed SHD projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. In granting permission for proposed SHD 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.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
		Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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. 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.
	Irish Water Projects (*Impact dependent on proximity to Proposed Scheme*) 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.	No in-combination effect. 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

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect 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: 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 SAC, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and, 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).	objectives and policies to ensure the protection of European sites. Proposed Irish Water projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. 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. 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 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 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

350 This section lists the overarching plan level environmental protection policies from the following plans Fingal County Development Plan 2017 – 2023, Dublin City Development Plan 2016 – 2022, South Dublin County Development Plan 2022- 2028, Wicklow County Development Pan 2016 – 2022 and Dun Laoghaire-Rathdown County Development Plan 2022-2028.

351 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 2016 – 2022, the South Dublin County Development Plan 2022- 2028, the Wicklow County Development Pan 2016 – 2022 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

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.

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.

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 2016 - 2022

GI2: That any plan/project, either individually or in combination with other plans or projects that has the potential to give rise to significant effect on the integrity of any European site(s), shall be subject to an appropriate assessment in accordance with Article 6(3) and 6(4) of the EU Habitats Directives.

GI23: To protect flora, fauna and habitats, which have been identified by Articles 10 and 12 of Habitats Directive, Birds Directive, Wildlife Acts 1976–2012, the Flora (Protection) Order 2015 S.I No. 356 of 2015, European Communities (Birds and Natural Habitats) Regulations 2011 to 2015.

GI24: To conserve and manage all Natural Heritage Areas, Special Areas of Conservation and Special Protection Areas designated, or proposed to be designated, by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.

South Dublin County Development Plan 2022- 2028

Natural, Cultural and Built Heritage (NCBH) Policy 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.

- 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.

- NCBH3 Objective 2: To ensure that plans, including land use plans, will only be adopted, if they 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 plan is likely or might have such a

significant adverse effect (either alone or in combination), South Dublin County Council 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 plan will not adversely affect the integrity of any European site, will South Dublin County Council adopt the plan, incorporating any necessary mitigation measures. A plan which could adversely affect the integrity of a European site may only be adopted in exceptional circumstances, as provided for in Article 6(4) of the Habitats Directive as transposed into Irish legislation.

- 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.

Natural, Cultural and Built Heritage (NCBH) Policy NCBH4 Proposed Natural Heritage Areas: Protect the ecological, visual, recreational, environmental and amenity value of the County's proposed Natural Heritage Areas and associated habitats and species.

- NCBH4 Objective 1: To ensure that any proposal for development within or adjacent to a proposed Natural Heritage Area (pNHA) is designed and sited to minimise its impact on the biodiversity, ecological, geological and landscape value of the pNHA particularly plant and animal species listed under the Wildlife Acts and the Habitats and Birds Directive including their habitats.

- NCBH4 Objective 2: To restrict development within or adjacent to a proposed Natural Heritage Area to development that is directly related to the area's amenity potential subject to the protection and enhancement of natural heritage and visual amenities including biodiversity and landscapes. Such developments will be required to submit an Ecological Impact Assessment prepared by a suitably qualified professional.

Wicklow County Development Plan 2016 - 2022

NH2: No projects giving rise to significant cumulative, direct, indirect or secondary impacts on Natura 2000 sites 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 be permitted on the basis of this plan (either individually or in combination with other plans or projects).

NH3: To contribute, as appropriate, towards the protection of designated ecological sites including candidate Special Areas of Conservation (cSACs) 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). To contribute towards compliance with relevant EU Environmental Directives and applicable National Legislation, Policies, Plans and Guidelines, including 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 (85/337/EEC, as amended), the Water Framework Directive (2000/60/EC) and the Strategic Environmental Assessment Directive (2001/42/EC).

- National legislation, including the Wildlife Act 197610, the European Communities (Environmental Impact Assessment) Regulations 1989 (SI No. 349 of 1989) (as amended), 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) and the European Communities (Environmental Liability) Regulations 200811.

- National policy guidelines (including any clarifying Circulars or superseding versions of same), including the Landscape and Landscape Assessment Draft Guidelines 2000, the Environmental Impact Assessment Sub-Threshold Development Guidelines 2003, Strategic Environmental Assessment Guidelines 2004 and the Appropriate Assessment Guidance 2010.

- Catchment and water resource management Plans, including Eastern and South Eastern River Basin Management Plan 2009-2015 (including any superseding versions of same). Biodiversity Plans and guidelines, including Actions for Biodiversity 2011-2016: Ireland's 2nd National Biodiversity Plan (including any superseding version of same).

- Ireland's Environment 2014 (EPA, 2014, including any superseding versions of same), and to make provision where appropriate to address the report's goals and challenges.

NH4: All projects and plans arising from this plan (including any associated improvement works or associated infrastructure) will be screened for the need to undertake Appropriate Assessment under Article 6 of the Habitats Directive. A plan or project will only be authorised after the competent authority has ascertained, based on scientific evidence, Screening for Appropriate Assessment, and a Stage 2 Appropriate Assessment where necessary, that:

1) The Plan or project will not give rise to significant adverse direct, indirect or secondary effects on the integrity of any European site (either individually or in combination with other plans or projects); or

2) The Plan or project will have significant adverse effects on the integrity of any European site (that does not host a priority natural habitat type and/or a priority species) but there are no alternative solutions, and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

3) The Plan or project will have a significant adverse effect on the integrity of any European site (that hosts a natural habitat type and/or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons for overriding public interest, restricted to reasons of human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest. In this case, it will be a requirement to follow procedures set out in legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000.

NH5: To maintain the conservation value of all proposed and future Natural Heritage Areas (NHAs) and to protect other designated ecological sites in Wicklow.

NH6: 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 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.

Dun Laoghaire-Rathdown County Development Plan 2022-2028

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

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.

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

352 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.

353 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 of this report, no adverse effects on European site integrity will arise from the implementation of the Proposed Scheme.

354 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 Appropriate Assessment and/or Appropriate Assessment, as appropriate.

355 As the Proposed Scheme will not affect the integrity of European sites within the Zol 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.

356 **Table 33** and **Table 34** 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.

357 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.

358 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 update assessment.

10 NIS Conclusion

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

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

361 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 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.

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NTA

Údarás Náisiúnta Iompair
National Transport Authority

National Transport Authority
Dún Scéine
Harcourt Lane
Dublin 2
D02 WT20

Project Ireland 2040
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