

**Blanchardstown to
City Centre Core Bus
Corridor Scheme**
May 2022

**Natura
Impact
Statement**

**BUS
CONNECTS**

SUSTAINABLE TRANSPORT FOR A BETTER CITY.

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Main Report

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Natura Impact
Statement

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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 Blanchardstown to City Centre Core Bus Corridor Scheme (hereinafter referred to as “the Proposed Scheme”). The Proposed Scheme aims to provide enhanced walking, cycling and bus infrastructure on this key access corridor in the Dublin region, which will enable and deliver efficient, safe, and integrated sustainable transport movement along the corridor.
- 2 This NIS has been prepared in accordance with the provisions of Part XAB of the Planning and Development Act, 2000, as amended (“the 2000 Act”) and in accordance with the requirements of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (“the Habitats Directive”).
- 3 It considers the implications of the Proposed Scheme, on its own and in combination with other plans or projects, for European sites¹ 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 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, an Appropriate Assessment of the Proposed Scheme is required in this instance as it cannot be excluded, in view of best scientific knowledge and on the basis of objective information, that the Proposed Scheme, either individually or in combination with other plans or projects, will not have a significant effect on 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 combination with other plans or projects, have any adverse effect on the integrity of any European sites in view of their conservation objectives.

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).

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*’ and specifies that it ‘*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*’.

... 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 site’s QIs or SCIs.

3.1 Overview

- 19 The Proposed Scheme has an overall length of approximately 10.9km and will commence at Junction 3 (Blanchardstown / Mulhuddart) southbound off-slip from the N3. The Proposed Scheme proceeds along the R121 Blanchardstown Road South into the Blanchardstown Shopping Centre. From a new terminus to the north-west of Blanchardstown Shopping Centre the Proposed Scheme is routed onto the N3 Navan Road via the Snugborough Road junction and will follow the N3 and Navan Road as far as the junction with the Old Cabra Road. From here, the Proposed Scheme will be routed along Old Cabra Road, Prussia Street, Manor Street and Stoneybatter to the junction with King Street North. The Proposed Scheme will proceed via Blackhall Place as far as the junction with Ellis Quay, where it will join the prevailing traffic management regime on the North Quays. At the Stoneybatter / Brunswick Street North junction, cyclists proceed along Brunswick Street North, George's Lane and Queen Street as far as Ellis Quay/Arran Quay (See Figure 1).
- 20 The Proposed Scheme will involve widening existing carriageways, realigning footpaths / cycleways, the conversion of roundabouts to signalised junctions, removal of existing walls, widening of the Mill Road overbridge and widening the River Tolka culvert in Blanchardstown. Works that will take place in the City Centre, in the vicinity of Blackhall Place and Queens Street involve minor works i.e. the realignment of footpaths and cycleways.
- 21 See Figure 1 (at the end of the NIS) for Proposed Scheme Location Plan and Appendix I and II for the general arrangement drawings in respect of the layout, surface water connections and landscape design for the Proposed Scheme.
- 22 The main characteristics of the Construction Phase of the Proposed Scheme that have the potential for ecological impact are:
- Site preparation and clearance;
 - Removal of existing boundaries, pavement, lighting columns, bus stops, and signage;
 - Protection and / or diversion of buried services;
 - Reconnection of existing and new drainage infrastructure into the existing surface water drainage infrastructure;
 - Road widening, pavement reconstruction, and kerb improvements;
 - Temporary and permanent land take;
 - Installation of new bus stops and junction / roundabout modification;
 - Property boundary reinstatement, signage replacement; relocation of lighting columns; and
 - Landscaping and tree planting, and reinstatement of temporary land acquisitions.
- 23 Appendix I to this NIS includes the General Arrangement drawings in respect of the Proposed Scheme and the location of its various elements including details on Bridges and major retaining structures, landscape planting. Appendix II includes the Proposed Surface Water Drainage Works Drawings.

3.2 Structural Works

- 24 The principal structural works which form part of the Proposed Scheme include:
- Structure No. 1: Tolka River Bridge (BR01);
 - Structure No. 2: Mill Road Bridge (BR02);
 - Pedestrian Ramps (RW07-A and RW07-B);
 - Sign Gantries; and
 - Retaining Walls (principal and minor).

3.2.1.1 Structure No. 1: Tolka River Bridge (BR01)

- 25 The southern end of the Tolka River Bridge will be widened in order to facilitate the additional lanes proposed for the N3 dual carriageway. The existing Tolka River Bridge comprises a single 13m span bridge. There is an existing maintenance access path under the bridge, however no works to this access path are proposed. The original corrugated steel arch culvert was previously widened at the southern end, using precast reinforced concrete (RC) beams.
- 26 The bridge will be widened using a similar approach of precast concrete beams, supported on a new abutment. For the duration of the works, the N3 dual carriageway westbound slip road will be reduced to a single lane. Access to the temporary working area around the bridge structure will be from the N3 dual carriageway westbound slip road.
- 27 Initially vegetation and site clearance will be carried out. Once the access from N3 dual carriageway westbound slip road to the temporary working area is provided, demolition of the southern section of the existing Tolka River Bridge, and the existing wingwall will be undertaken. The demolition will be carried out by mechanical means including the use of cutting, hydraulic breakers and potentially hydro-demolition.
- 28 Sheet piling will be installed on the land side of the existing gabion baskets to minimise the risk of any construction materials washing into the river and to retain the existing bank during excavation works for the bridge foundations. The sheet piles will be driven and installed in accordance with Inland Fisheries Ireland (IFI) Guidelines on Protection of Fisheries During Construction Works Adjacent to Waters (IFI 2016). Consultation was undertaken (in June of 2021) with IFI and they have confirmed that the works are deemed out-of-channel. Environmental mitigation measures including netting beneath bridge deck adjacent to widening works, and silt curtains and silt busters will be installed within the temporary working area, to mitigate potential impacts associated with surface water runoff on the River Tolka. The appointed contractor will provide site hoarding of 2.4m height between the sheet piles and the watercourse to mitigate potential impacts associated with protected species (Otter and Kingfisher). The hoarding will be installed to retain the existing maintenance access path under the bridge.
- 29 After the sheet piling is installed, the excavation works will commence for the abutment foundations. Excavations will be completed to the required level and will be upfilled with imported aggregate to the underside of the foundation. The foundation and abutment walls will be constructed and backfilled in accordance with the design. Foundations for the bridge widening will be supported on piles. Percussive and driven piling techniques will be avoided to mitigate impacts on the surrounding environment. In situ rotary bored piles will be installed to support the bridge foundations. A drill rig will be used for boring lined holes to a predetermined depth as per the design, with the holes filled with reinforced concrete. A reinforced concrete foundation pad will be constructed on top of the piles. This will be undertaken by placing formwork, then steel reinforcement followed by the concrete pour. After the concrete has cured, the formwork will be removed.
- 30 Following completion of the foundations, the sheet piling will be removed. Once the foundations have been constructed, the remaining elements will be completed as follows:
 - Break out area of existing bridge (to allow for structurally tying in of existing bridge deck to new bridge deck);
 - Construct abutments – as with the foundations, these will be reinforced concrete, and will be constructed by placing formwork, then steel reinforcement followed by the concrete pour;
 - Install bridge beams – precast reinforced concrete beams which will be delivered to site on lorries, and lifted into place (probably out-of-hours) using a large mobile crane;
 - Construct reinforced concrete bridge deck;
 - Construct reinforced concrete wingwalls and masonry cladding;
 - Construct reinforced concrete retaining wall and masonry cladding on new widened section of the bridge;

- Waterproof and backfill abutments, wingwalls and retaining walls;
- Construct parapet edge beams and install steel parapet;
- Complete bridge deck waterproofing;
- Place backfill to structure; and
- Construct pavement, footpaths and finishes.

- 31 Once the structure is completed, the access will be removed from the adjacent slip road and the temporary working area will be reinstated to the existing profile and in accordance with working within the Streamside Zone by IFI in the Planning for Watercourses in the Urban Environment Guidelines (IFI 2020).
- 32 With the N3 dual carriageway westbound slip road reduced to a single lane, the majority of works will be carried out during normal working hours. Some works will be carried out at night-time under full slip road closure, including works to remove the existing bridge deck at the tie-in to the widened section, and bridge beam lifts.

3.2.1.2 Structure No. 2: Mill Road Bridge (BR02) and Pedestrian Ramps (RW07-A and RW07-B)

- 33 The existing Mill Road Bridge will be widened to the north and south, in order to facilitate the additional lanes proposed for the N3 dual carriageway. The existing Mill Road Bridge consists of twin bridges of single 14m span RC, integral with portal abutment walls.
- 34 The widening will be completed to both ends of the bridges, with the abutment walls, foundations and bridge decks being extended, widening the existing structure. Pedestrian access ramps will also be constructed on both sides of the Mill Road Bridge. The sequencing of works for this structure will be undertaken as follows:
- Central Reservation Works;
 - Mill Road South and Mill Road North Works; and
 - Pedestrian Ramp Works.
- 35 Prior to all demolition and construction works at this location, environmental mitigation measures including silt curtains and silt busters will be installed within the temporary working area, to mitigate potential impacts associated with surface water runoff on the River Tolka. Given that Mill Road will be closed, all works will be undertaken during normal working hour.
- 36 Mill Road will be closed to vehicular traffic for the duration of the construction works, between Herbert Road and Edmund Rice College. For the majority duration of the works pedestrian access will be maintained through Mill Road however, for specific works such as bridge beam lifts, pedestrian access will be closed. These works will be undertaken at night.

3.2.1.3 Central Reservation Works

- 37 Traffic on the N3 dual carriageway will be reduced to two lanes in each direction, with traffic realigned to the verges, maximising the working area in the central reservation. This traffic management arrangement will provide sufficient room in the N3 central reservation for structural works.
- 38 Works will commence with demolition of the central sections of the existing bridge. These will be removed by mechanical means including the use of cutting, hydraulic breakers and potentially hydro-demolition. Demolition will be carried out. Once the demolition works are completed, the deck construction works will commence. Falsework will be installed over the Mill Road, for construction of the in-situ RC deck.

3.2.1.4 Mill Road South and Mill Road North Works

- 39 During this element of work, traffic on the N3 dual carriageway will be reduced to two lanes in each direction, with traffic realigned to run tightly along the newly constructed central reservation. This traffic management arrangement will provide sufficient room in the N3 verges for structural widening works.

40 Works will commence with the demolition of the existing parapet and edge beam on the northern and southern edges of the bridge. These will be removed by mechanical means including the use of cutting, hydraulic breakers and potentially hydro-demolition. Once the demolition works are completed, the widening works will be constructed in the following sequence:

- Abutments:
 - Diversion / temporary protection of services;
 - Excavation for foundation construction;
 - Construction of in-situ RC spread pad footing. As rock is approximately 1m below existing ground level, no piling of foundations will be required;
 - Construction of in-situ RC abutment stem;
- Deck Construction:
 - Construction of in-situ RC deck with falsework over Mill Road;
- Wingwalls:
 - Construction of in-situ wingwalls with sculptured finish;
- Finishes:
 - Backfill of abutment and wingwalls;
 - Construction of RC parapet edge beam and installation of parapet;
 - Waterproofing of bridge deck;
 - Kerbing, footpaths, pavement on deck; and
 - Cobble / paving underneath bridge widening.

3.2.1.5 Pedestrian Ramp Works (Structure RW07-A and RW07-B)

41 To the south of the N3 dual carriageway, a pedestrian ramp will be constructed to the east of Mill Road (RW07-A). These works will be carried out simultaneously with the Mill Road Bridge (BR02) widening. The southern access works will be divided into three sections:

- Southern approach ramp: The southern access will involve underpinning or temporary supporting of the adjacent wall during excavation and construction of the new approach ramp. Extensive surveys of the existing wall will be required in advance of construction works commencing to inform the construction method. Access for these works will be from Mill Road with lane closures required for tie-in works.
- Pedestrian ramp adjacent to N3: The pedestrian ramp will be constructed with access from the N3 dual carriageway. Initially the area will be excavated to formation level. The retaining walls will then be constructed with the areas backfilled to finished level as the walls are being constructed.
- Stepped access: The stepped access will be constructed from the bottom, up, with access to the works from both Mill Road and the N3.

42 To the north of the N3 dual carriageway, a pedestrian ramp will be constructed to the west of Mill Road (RW07-B). These works will be carried out simultaneously with the Mill Road Bridge (BR02) widening. The pedestrian access ramp will be constructed in close proximity to an existing foul sewer pumping station which is being retained as part of the works. Any services connecting to the pumping station, in the line of the proposed works will be diverted by the appointed contractor prior to commencement of the works. Due to the position of the pumping station, a construction access lane will be constructed to the north of the pumping station. The access ramp will be constructed from the bottom up, completing the retaining walls in sequence as the works progress. The works will be completed with plant and equipment positioned at the bottom of the slope for the lower walls and on the N3 dual carriageway for the walls higher up the

slope. Once the access ramp is completed, the area at the bottom of the slope will be reinstated to its existing profile.

3.2.1.6 Sign Gantries

- 43 There are nine sign gantries along the Proposed Scheme; one gantry to be retained without modifications (Sign Gantry GY05), four gantries to be modified, two gantries to be replaced and two new gantries to be constructed, as detailed in Table 1.
- 44 Prior to construction works commencing the appointed contractor will inspect the position and condition of the gantry foundations and evaluate whether new foundations need to be constructed and / or relocated. Gantry foundations will be constructed during the verge and central reservation phases of construction and the steelwork and signage will be installed during out-of-hours works under a carriageway closure.

Table 1: Gantries / Variable Message Signs along the Proposed Scheme

Gantry / VM Reference	Structure Type	New / Existing	Chainage	Section Reference
GY01	Overhead Sign Gantry	Modify/Replace existing	Alignment A Ch 1439.00	Section 2b
GY02	Overhead Sign Gantry	New (replace existing)	Existing location Alignment A Ch 1745.00 Proposed location Alignment A Ch 1799.00	Section 2b
GY03	Overhead Sign Gantry	Modify/Replace existing	Alignment A Ch 2988.00	Section 3a
GY04	Variable Message Sign	New (replace existing)	Alignment A Ch 1316.00	Section 2a
GY05	Overhead Sign Gantry	Existing – retain	Alignment A Ch 2818.00	Section 3a
GY06	Overhead Sign Gantry	Modify/Replace existing	Alignment A Ch 3316.00	Section 3a
GY07	Overhead Sign Gantry	New	Alignment A Ch 1765.00	Section 2b
GY08	Overhead Sign Gantry	New	Alignment A Ch 1311.00	Section 2b
GY09	Overhead Sign Gantry	Modify/Replace existing	Alignment A Ch 3916.00	Section 3b

3.2.1.7 Retaining Walls

- 45 Retaining walls with a retained height greater than 1.5m are classed as principal structures. There are five principal retaining walls along the Proposed Scheme, as detailed in Table 2, as are the miscellaneous retaining walls.
- 46 Retaining walls are typically installed to cater for level differences between the road and adjoining lands. RW07-A and RW07-B are the pedestrian ramps at Mill Road and these ramp structures include principal retaining walls.
- 47 Retaining walls will generally be constructed of reinforced concrete, with railing and clad as required, with suitable materials depending on the local environs. Retaining walls will generally be constructed by first isolating the site of the retaining wall using fencing, as appropriate, to the location. The existing ground will then be stripped to formation level. Existing services will be diverted as required to enable wall construction. A side slope will be battered back to enable construction. Blinding will be installed at formation level. Formwork and reinforcing steel for the wall will be fixed in place. Then concrete will be

poured in sections and formwork removed after initial curing of concrete. After a sufficient curing period the area behind the wall will be backfilled.

- 48 Retaining walls are typically installed to cater for level differences between the road and adjoining lands. RW07-A and RW07-B are the pedestrian ramps at Mill Road and these ramp structures include principal retaining walls.
- 49 Retaining walls with a retained height less than 1.5m are classed as miscellaneous retaining walls. There are 15 miscellaneous retaining walls along the Proposed Scheme, as detailed in Table 2. Retaining walls are typically installed to cater for level differences between the road and adjoining lands.

Table 2: Principal and Miscellaneous Retaining Walls along the Proposed Scheme

Retaining Wall Reference	Structure Type	Chainage Start	Length (m)	Maximum Retained Height (m)	Section Reference
Principal Retaining walls					
RW01	Spreadfoot Cantilever Wall	Blanchardstown Road South 453 to A0040	270	3.0	Section 1c, 1i
RW07-A	Spreadfoot Cantilever Wall	A1604 to A1653	100	1.5	Section 2d
RW07-B	Spreadfoot Cantilever Wall	A1540 to A1609	250	3.0	Section 2e
RW09	Spreadfoot Cantilever Wall	A2219 to A2305	90	4.0	Section 2f
RW03	Soil Nail Wall	A2926 to A3027	100	4.0	Section 3a
Miscellaneous Retaining Walls					
RW10	Spreadfoot Cantilever Wall	Blanchardstown Road South Ch0304.00	241	0.3	Section 1c
RW11	Spreadfoot Cantilever	A0140	16	0.3	Section 1c
RW12-1	Spreadfoot Cantilever Wall	A0229	27	0.5	Section 1i
RW12-2	Spreadfoot Cantilever Wall	A0269	24	0.6	Section 1j
RW12-3	Spreadfoot Cantilever Wall	A0302	25	0.6	Section 1j
RW12-4	Spreadfoot Cantilever Wall	A0339	36	0.4	Section 1j
RW13	Spreadfoot Cantilever Wall	A0703	36	0.9	Section 1l
RW14	Spreadfoot Cantilever Wall	A1475	66	0.7	Section 2b
RW15	Spreadfoot Cantilever Wall	A1854	26	0.4	Section 2b
RW16	Spreadfoot Cantilever Wall	A2205	107	0.9	Section 2b
RW17	Spreadfoot Cantilever Wall	A3939	41	1.3	Section 2f
RW18	Spreadfoot Cantilever Wall	A2308 to A2342	34	1.3	Section 2f
RW19	Spreadfoot Cantilever Wall	A3939 to A3979	41	1.3	Section 3b
RW20	Spreadfoot Cantilever Wall	A5542 to A5548	6	0.3	Section 4a
RW21	Spreadfoot Cantilever Wall	A6658 to A6693	35	0.5	Section 4b

3.3 Surface Water Drainage Infrastructure

- 50 The surface water drainage system is managed by the Local Authorities, whilst combined sewer systems are managed by Irish Water. Surface water flows are typically collected in standard gully grates and routed

via a gravity network to outfall points. The drainage design of the Proposed Scheme assumes that there are generally no SuDS/attenuation measures on the existing drainage networks to treat or attenuate runoff from the existing carriageway.

- 51 The drainage design aims to sustain flow levels within the existing pipe network after a rainfall event by controlling the discharge rate within each catchment. Flows will be controlled by the implementation of SuDS techniques, where practicable. During the Operation Phase, the overall net increase in impermeable area for the Proposed Scheme will be 27,737m² which equates to a 6.6% net increase. It is proposed to connect the drainage infrastructure for the Proposed Scheme into existing surface water infrastructure which is assumed to discharge to the following waterbodies: Tolka_040 (via surface water drainage), Royal Canal (Mainline (Liffey and Dublin Bay)) (via surface water drainage), Liffey Estuary Upper (via combined sewer) and Dublin Zoo Ponds (via surface water drainage). Full details of the proposed drainage infrastructure are provided in Appendix II of this NIS.
- 52 The SuDS solutions are summarised in Table 3.

Table 3: Summary of Impermeable areas and SuDS proposed by waterbody

Waterbody	Approximate Impermeable Surface Area m ²			SuDS Measures Proposed
	Existing impermeable area	Additional permeable area	Percentage change	
Tolka_040	58432	19679	34	Bio retention areas, tree pits, OSP, FD, green roof, permeable paving
Tolka_050	4126	1892	46	Bio retention areas, FD, swale
Royal Canal	23266	5376	23	Bio retention areas, tree pits, OSP, FD
Dublin Zoo Ponds	17577	2679	15	Bio retention areas, Tree pits, FD, OSP
Liffey Estuary Upper	N/A	0	0	Bio retention areas
Ringsend	7856	767	10	Bio retention areas, Tree Pits, FD

3.4 Lighting

- 53 The majority of the Proposed Scheme is already artificially lit. During Construction, temporary lighting will be required at times along the Proposed Scheme at certain locations, as necessary. Where it is necessary to disconnect public lighting during the construction works or to undertake works outside of daylight hours where existing lighting is low, appropriate temporary lighting will be provided. Temporary lighting will also be installed at the Construction Compounds for the duration of the Construction Phase. The standard of temporary lighting installed during the Construction Phase will meet the standard of the existing carriageway and will be appropriate to the speed and volume of traffic during construction. Temporary construction lighting will generally be provided by tower mounted floodlights, which will be cowled and angled downwards to minimise spillage of light from the site
- 54 A review of the existing lighting provision along the extent of the route has been carried out to understand the impact of the Proposed Scheme on lighting columns and associated infrastructure. Where existing lighting columns conflict with the Proposed Scheme, they will be relocated. In some areas which are currently artificially lit, there are approximately 21 additional new lighting columns provided as part of the Proposed Scheme. Light Emitting Diode (LED) lanterns will be the light source for all lighting columns provided. All lighting columns will aim to minimise the effects of obtrusive light at night and reduce visual

impact during daylight. Lighting schemes will comply with the 'Guidance notes for the Reduction of Light Pollution' issued by the Institution of Lighting Professionals (ILP).

- 55 New low-level lighting is proposed at BR02 Mill Road Bridge, as well as at RW07A & B Pedestrian Ramps which will provide pedestrian access between Mill Road and the N3 Dual Carriageway. It is anticipated that the new low-level lighting either integrated into the handrails or another part of the structure. Due to the nature of this approach the lighting levels will be under 3 lux within a short distance of the structure which will result in extremely limited light spill.

3.5 Landscaping and Public Realm

- 56 The Proposed Scheme includes a planting strategy which includes replacement of street trees and groups of trees that may be impacted by the Proposed Scheme, but also the introduction of new tree planting and street trees within other spaces and along streets. Full details of the planting strategy are included in the General Arrangement Drawings (BCIDC-ARP-GEO_GA-05_XX_00-DR-CR-001) in Appendix I to this NIS.
- 57 The Proposed Scheme includes a new Bus Interchange at Blanchardstown Shopping Centre (See Appendix I for location and layout). The Bus Interchange will be a covered area where various transport routes will connect and allow for efficient change to other services. Reinforcement of green infrastructure along the route will improve the overall amenity, character and appeal of the route corridor and localities along it, as well as enhancing biodiversity.
- 58 The Bus Interchange at Blanchardstown Shopping Centre will require roof canopies of two heights. Up-lighting on the canopies will be provided to create a safe environment for members of the public. The canopies comprise of a concrete clad steel frame supported on circular columns. Drainage off each roof will be directed through the columns to a below ground rainwater drainage system, eased by the presence of green roofs incorporated into the roof of each canopy.

3.6 Construction Compounds

- 59 The locations of the Construction Compounds has been based on areas with most space availability in close proximity to the Proposed Scheme major works. The Construction Compounds will be located at the following sites:
- 60 The location of the Construction Compounds in relation to the Proposed Scheme are shown in Images 1,2 and 3. The Construction Compound locations have been selected due to the amount of available space, their relative locations near the majority of the Proposed Scheme major works and access to the National and Regional Road network. The Construction compounds will be located at the following sites:
- Construction Compound BL1: Old Navan Road;
 - Construction Compound BL2: Junction 6, Castleknock, West of M50; and
 - Construction Compound BL3: R147 East of the M50 (divided into two sections by the Navan slip road).
- 61 As shown in Figure 1, Figure 2 and Figure 3, the Construction Compounds will contain a site office, and welfare facilities for NTA personnel and contractor personnel. Limited car parking will be allowed at the Construction Compounds. Materials such as topsoil, subsoil, concrete, rock etc., will be stored at the Construction Compounds for reuse as necessary. Items of plant and equipment will also be stored within the Construction Compounds. The Construction Compounds will be in place for the duration of the Construction Phase of the Proposed Scheme, estimated at approximately 24 months. The compounds will be dismantled, and the site returned to its existing condition on completion of the Construction Phase.
- 62 The Construction Compounds will be engineered with appropriate services. Water, wastewater, power, and communications connections will be organised by the appointed contractor. At work areas along the Proposed Scheme, where permanent provisions (for the duration of the construction programme) are not practicable, appropriate temporary provisions will be made including the use of generators if required. Temporary welfare facilities will need to be used, for example, portable toilets in the vicinity of works.

Wastewater from temporary welfare facilities will be collected and disposed of to a suitably licenced facility.

- 63 Appropriate environmental management measures will be implemented at the Construction Compounds for example, to minimise the risk of fuel spillage, and to ensure that the Construction Compounds and the approaches to it are appropriately maintained. Further information on the air quality, noise and vibration, and water related mitigation measures that will be implemented are included in Appendix III to the NIS - Construction and Environmental Management Plan
- 64 Following completion of the construction works, the Construction Compound areas will be cleared and reinstated to match pre-existing conditions.
- 65 The Construction Compound BL1 will be located in Corduff Park, in an existing car park along the Old Navan Road, as shown in Figure 1.
- 66 The area of Construction Compound BL1 is approximately 1,200m².

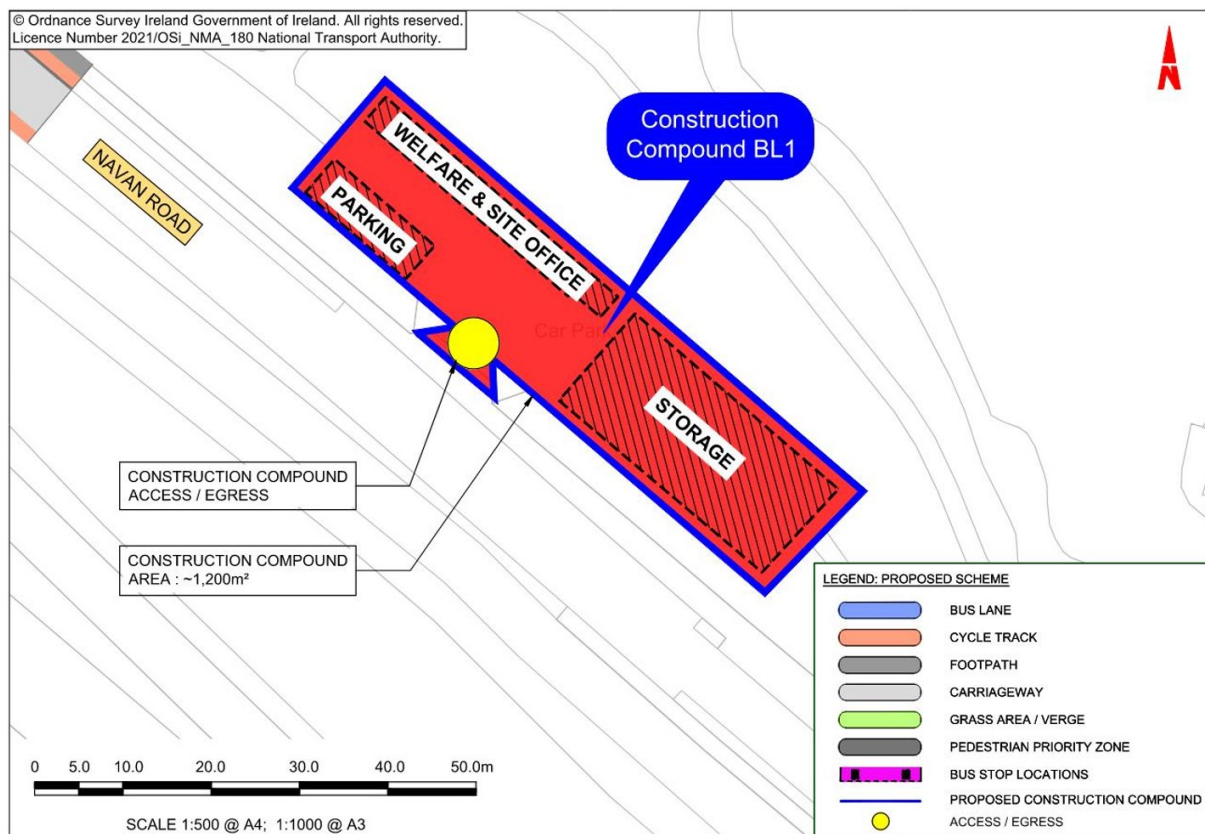


Figure 2: Location, Extent and Layout of Construction Compound BL1

- 67 The Construction Compound BL2 will be located at Junction 6, Castleknock, west of the M50, as shown in Figure 2. The area of Construction Compound BL2 is approximately 1,400m².

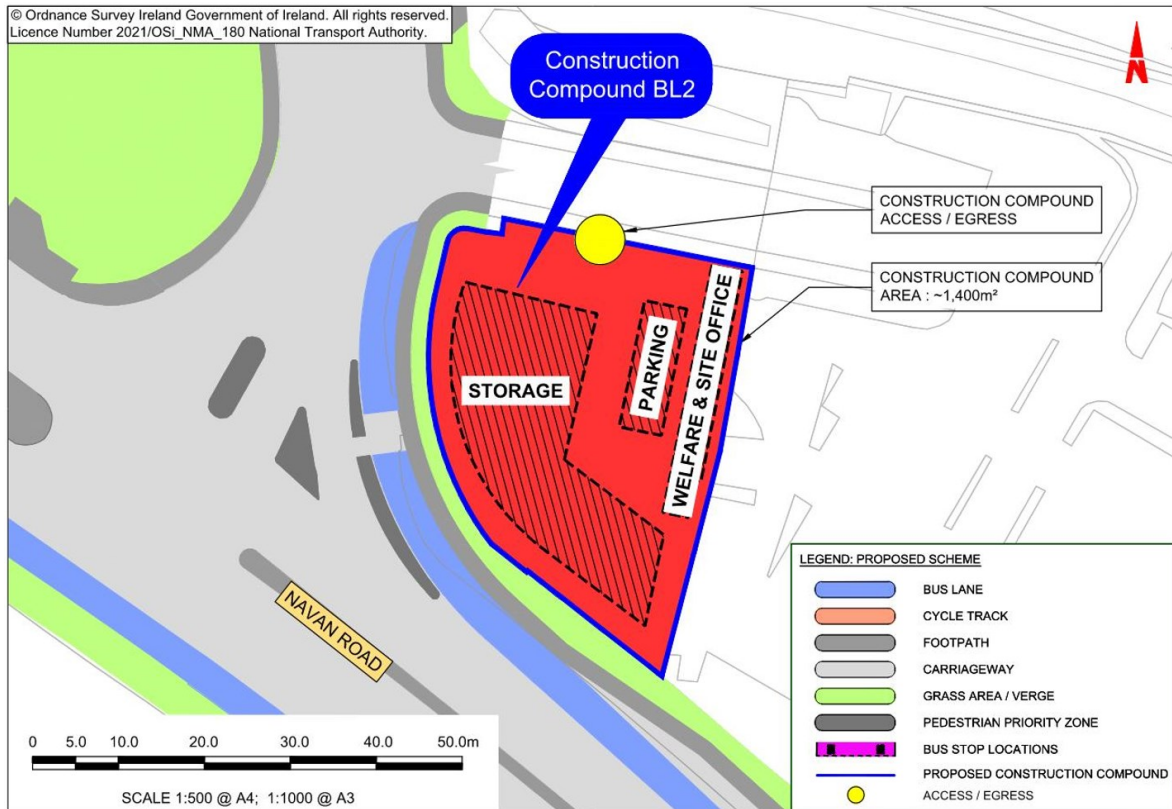


Figure 3: Location, Extent and Layout of Construction Compound BL2

68 The Construction Compound BL3 will be located along the R147, east of the M50, as shown in Figure 3. The Construction Compound will be divided by the Navan Road slip road, and a proposed road as part of the Proposed Scheme. The area of Construction Compound BL3 is approximately 5,200m².

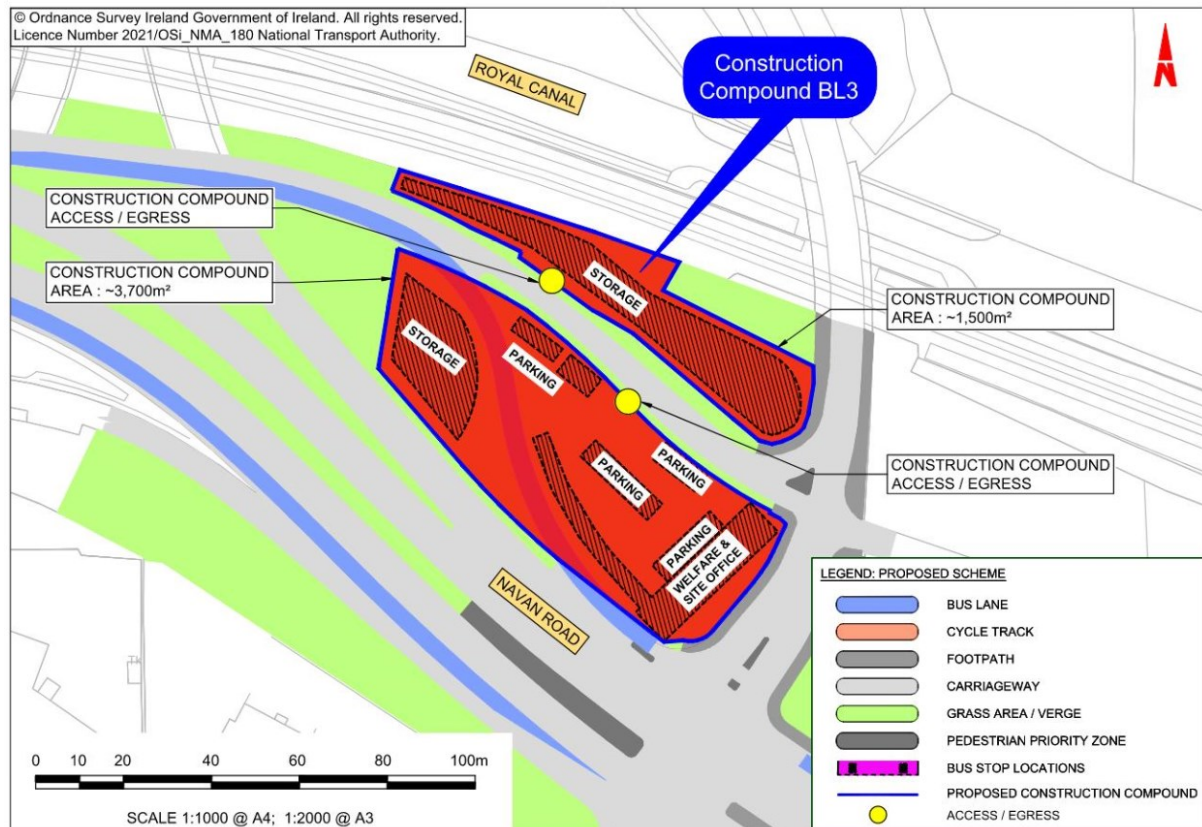


Figure 3: Location, Extent and Layout of Construction Compound BL3

3.7 Offline Works

- 69 A number of isolated or offline sections of work, not attached to the main corridor are proposed. Typically works entail works, sign installation and the provision of a new road layout in discrete areas for example along the Cabra Road / North Circular Road junction and R147 / R805 / R804. The locations of these works are shown in the General Arrangement drawings in Appendix I to this NIS.

3.8 Estimated Project Duration

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

3.9 Operational Phase

- 71 The main characteristics of the operational stage 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 relocated lighting and some new low-level lighting associated with Structures; and
- Routine maintenance.

4 Methodology

4.1 Scientific and Technical Competence Relied Upon

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

Kristie Watkin-Bourne

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

Laura Higgins

- 74 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.

Tim Ryle

- 75 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.

Colm Clarke

- 76 Colm Clarke is a Principal Ecologist with Scott Cawley Ltd., and has seven years' experience in ecological consultancy. He obtained an honours degree in Natural Sciences, with a specialisation in Botany, from Trinity College Dublin, and a Masters in Biodiversity and Conservation from the same institution. Colm is a full Member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He has acted as project ecologist on a range of projects including large-scale residential, industrial and transport infrastructure. Colm regularly authors AA Screening reports and NISs, and undertakes peer review of colleagues work as part of Scott Cawley Ltd.'s quality assurance process.

Suvi Harris

- 77 Suvi Harris is a Senior Environmental Project Manager at Scott Cawley Ltd. Suvi holds an honours degree BSc. in Botany from University College Dublin and a PhD. in Environmental Risk Assessment from University College Dublin. Suvi is a Full member of the CIEEM. Suvi has over 8 years' experience in environmental consultancy and over 12 years' experience in the environmental field with a particular focus on aquatics. Suvi has worked on national and international multidisciplinary teams developing environmental and ecological solutions for engineering challenges. Suvi leads, coordinates and assists on a range of areas including EIA, AA, Water Framework Directive Compliance Assessment, Surface Water Impact Assessment, Sustainability Appraisal, Planning, Licencing etc. Suvi holds a deep technical understanding of the relevant National and European Legislation which govern environmental protection and planning in Ireland.

Aebhín Cawley

- 78 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. Aebhin 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

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

European Commission Guidance

- Assessment of Plans and Projects Significantly Affecting Natura 2000 sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission, 2021)
- Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC (European Commission, 2019)
- Communication from the Commission on the Precautionary Principle (European Commission 2000)²
- Nature and Biodiversity Cases – Ruling of the European Court of Justice (European Commission 2006)
- Interpretation Manual of European Union Habitats. Version EUR 28. (European Commission, 2013).
- 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)
- OPR Practice Note PN01. Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021)

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

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

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

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

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

4.3 Assessment Methodology

- 81 The Proposed Scheme was analysed and appraised to identify the potential impacts that could affect the ecological environment.
- 82 From this, the ecological 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.
- 83 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. pathway 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.
- 84 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).
- 85 The identification of a source-pathway-receptor risk does not automatically mean that significant effects will arise. 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, with the significance of the effect depending upon the nature of and exposure to the risk and the characteristics of the receptor. Where there is any uncertainty, the precautionary principle has been applied.
- 86 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.
- 87 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".
- 88 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,
 - 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
- 89 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
- 90 Where site-specific conservation objectives have been prepared for a given European site, 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.
- 91 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 that has occurred since their designation, insofar as possible.
- 92 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

- 93 The data sources used to inform the assessment presented in this report are as follows (accessed in December 2020 and updated in February 2022) (See Appendix IV of this NIS):
- Online data available on European sites and on Natural Heritage Areas (NHAs) or proposed Natural Heritage Areas (pNHAs) from www.npws.ie⁴, including conservation objectives documents;
 - Online data records available on National Biodiversity Data Centre Database (NBDC Online Database 2022);
 - Online data records made available via an NPWS data request (NPWS 2020);
 - Ordnance Survey Ireland (OSI) orthophotography (from 1995 to 2012) for the Proposed Scheme study area;
 - Bus Connects Drone Imagery, surveyed 2020;
 - Habitat and species GIS datasets provided by the NPWS, including Article 12 and Article 17 data;⁵
 - Records from the Botanical Society of Britain and Ireland (BSBI);
 - Information contained within the Flora of County Dublin (Doogue *et al.* 1998);
 - Environmental information/data for the area available from the EPA website www.epa.ie;
 - Information on the status of EU protected habitats and species in Ireland⁶;

³ 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_2019_12.

⁴ 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_2019_12.

⁵ Article 17 of the EU Directive on the Conservation of habitats, Floras and Fauna (Habitats Directive) requires that all member states report to the European Commission every six years on the status and on the implementation of the measures taken under the Habitats Directive. In a similar manner, there is an obligation to report on the status and trends of bird species required under Article 12 of the Bird's Directive.

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

- Information on light-bellied brent goose inland feeding sites⁷;
- The results of ecological surveys undertaken as part of the Environmental Impact Assessment (EIA) studies for the Proposed Scheme (see Section 5 for details); and,
- Information on the location, nature and design of the Proposed Scheme.

4.5 Consultation

94 Table 4 outlines the Appropriate Assessment issues raised during consultation.

Table 4: Appropriate Assessment issues raised during consultation

Consultee	Phase / Date of Consultation	Issues Raised	Relevant Section of the NIS where issues raised in the consultation is addressed
Department of Housing, Local Government and Heritage (formerly Department of Culture, Heritage and the Gaeltacht)	30/07/19 Ref. G Pre00165/2019	The Department recommend identification, description, and assessment of direct and indirect impacts of the Proposed Scheme on the following features: <ul style="list-style-type: none"> • Biodiversity in general and with specific attention to Natura 2000 sites. • Habitats and species protected under the Habitats Directive, such as Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur), bird species protected under the Birds Directive, such as Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur). • Species and / or habitats listed in the Habitats Directive inside or outside of Natura 2000 sites be recorded. 	Section 5.1 European Sites, Section 3.6 Baseline Surveys, Section 5 Overview of Receiving Environment Section 7 Assessment of Effects on European Sites
		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 3.6 Baseline Surveys, Section 5 Overview of Receiving Environment Section 7 Assessment of Effects on European Sites
		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. An Invasive Species Action Plan should form part of the planning application.	Section 6.3 Habitat degradation as a result of introducing/spreading non-native invasive species.

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

Consultee	Phase / Date of Consultation	Issues Raised	Relevant Section of the NIS where issues raised in the consultation is addressed
		<p>Cumulative impacts of the Proposed Scheme be considered, to include interaction between different and / or approved plans and projects in the same area as the Proposed Scheme.</p> <p>The Proposed Scheme be subject to Appropriate Assessment, and must contain complete (contain no lacunae), precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effects of the works proposed on the protected site concerned.</p> <p>Mitigation requirements should outline measures proposed and timescales provided relative to the Proposed Scheme These should be based on scientific evidence with their effectiveness considered.</p> <p>Where residual impacts remain, further mitigation measures may be required:</p> <ul style="list-style-type: none"> • Evidence should be provided of how mitigation measures will be monitored. • Monitoring should take place immediately down-stream of the Proposed Scheme. <p>The applicant should not use any proposed post construction monitoring as mitigation to supplement inadequate information in the assessment.</p>	<p>Section 8 In-Combination Assessment</p> <p>The Proposed Scheme has been subject to Screening for AA and the production of a Natura Impact statement, which accompanies the planning submission.</p> <p>Section 6 Potential Impacts, Zone of Influence and Identifying European Sites at Risk of Effects</p> <p>Section 7 Assessment of Effects</p>
Development Applications Unit (DAU), DCHG	30 July 2019 (letter received from DAU)	No specific AA concerns raised	N/A
Inland Fisheries Ireland (IFI)	3 November 2020 (letter received from IFI)	No specific AA concerns raised	N/A
Inland Fisheries Ireland (IFI)	8 June 2021 (email from Roisin O'Callaghan, IFI)	In respect of query raised with IFI in respect of potential works alongside the River Tolka, IFI confirmed that the planned works out of stream and not subject to the open season.	N/A

4.6 Baseline Surveys

- 95 Baseline ecological surveys were undertaken as necessary to inform environmental assessments of the Proposed Scheme. This section describes the methodologies followed for the ecological surveys undertaken to inform the assessment presented in this NIS.

4.6.1 Habitats and Flora

- 96 Habitat surveys were carried out by Scott Cawley Ltd. between June and August 2018 along the then Proposed Scheme alignment (See Figure 1). Confirmatory surveys were subsequently undertaken on the Proposed Scheme again in August 2020 to check and update the presence and extent of habitats found in the 2018 habitat surveys. Additional habitat surveys were carried out in December 2020 along any new

route sections added since 2018, in particular sections adjacent to the River Tolka such as The Grange, Waterville Park and Corduff Park to confirm extent and distribution of priority Annex I (91E0) alluvial woodlands. All habitats located within or immediately adjacent to the Proposed Scheme footprint were surveyed and mapped to level three of the Heritage Council's habitat codes, after Fossitt⁸ and in accordance with Best Practice Guidance for Habitat Survey and Mapping⁹. The level of field data quality was also recorded. Plant species present that were either representative of a habitat or considered to be of conservation interest (i.e. those listed on the Flora Protection Order or listed in the 'threatened' category or higher on the Red List for vascular plants and bryophytes) were recorded, along with their relative abundances. Non-native invasive plant species listed on the Third Schedule of the Birds and Habitats Regulations were also recorded. The habitat's extent was mapped onto an aerial photograph, with GPS points taken where a habitat's extent could not be clearly identified from the aerial photograph. Vascular plant nomenclature follows that of the New Flora of the British Isles 4th Edition¹⁰.

97 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 instream aquatic habitat surveys. Previous iterations of the Proposed Scheme design identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme, both located on the Blanchardstown Bypass N3, adjacent to Waterville Park. These sites were surveyed by Triturus Environmental Ltd. in October and November 2020 (See Appendix VI to this NIS). A broad habitat assessment was conducted at each site utilising elements of the methodology given in the Environment Agency's 'River Habitat Survey in Britain and Ireland Field Survey Guidance Manual 2003'¹¹ and the Irish Heritage Council's 'A Guide to Habitats in Ireland'¹². All sites were assessed in terms of:

- Channel width and depth and other physical characteristics;
- Substrate type, listing substrate fractions in order of dominance, i.e. bedrock, boulder, cobble, gravel, sand, silt etc.;
- Flow type, listing percentage of riffle, glide and pool in the survey area;
- In-stream macrophyte and aquatic bryophytes occurring and the prominence of each (DAFOR scale); and,
- General riparian vegetation composition.

4.6.2 Fauna Surveys

98 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. Additional fisheries surveys were undertaken by Triturus Environmental Ltd. (See Appendix VI to this NIS) in areas where waterbodies may be subject to significant disturbance as a result of the Proposed Scheme i.e. the two sites located on the Blanchardstown Bypass N3, adjacent to Waterville. The results of these surveys are not directly relevant to this assessment as the Proposed Scheme is not hydrologically connected to any European site designated for Annex II fish species or white-clawed crayfish. The nearest known European site designated for Salmon, River Lamprey and Brook Lamprey is the River Boyne and River Blackwater SAC, located approximately 28.5km north of the Proposed Scheme in the Boyne River catchment. The nearest known European site designated for white-clawed crayfish is the River

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

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

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

¹¹ Environment Agency. (2003). *River Habitat Survey in Britain and Ireland: Field Survey Guidance Manual: 2003 Version*. Forest Research.

¹² Fossitt, J.A. (2000) *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

Barrow and River Nore SAC, which is located approximately 50.6km south-west of the Proposed Scheme in the River Barrow catchment, River Nore catchment and River Ballyteigue-Bannow river catchment.

4.6.2.1 Otter

- 99 The footprint of the Proposed Scheme and suitable lands (e.g. greenfield sites) immediately adjacent were surveyed for otter *Lutra lutra* activity as part of the multi-disciplinary walkover survey, undertaken between June and August 2018, and in August 2020. A number of specific areas (River Tolka at Belvedere rugby grounds, and two separate greenfield sites adjacent to Navan road Blanchardstown and the park south of Old Corduff road) were revisited in October 2020. An additional otter survey was undertaken at key watercourse crossing 24 March 2022 with a follow up survey carried out 01 April 2022 to gain access across a construction site to lands along a section of the River Tolka which were not accessible in the March survey. 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.
- 100 A desk study was carried out to identify all hydrological crossing points within the footprint of the Proposed Scheme. Construction methodologies which involved in-stream works, modifications to banks or significant disturbance were deemed to require otter surveys. Previous iterations of the Proposed Scheme design identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. These sites are both located on the Blanchardstown Bypass N3, adjacent to Waterville Park. Where possible, a corridor of approximately 150m upstream and downstream of these sites were surveyed to identify the presence of otter holts in November 2020. Signs of otter were also noted during aquatic surveys carried out by Triturus Environmental Ltd. in October and November 2020.

4.6.2.2 Kingfisher

- 101 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. Previous iterations of the Proposed Scheme design identified two sites where water bodies may be subject to significant disturbance as a consequence of the Proposed Scheme. These sites are both located on the Blanchardstown Bypass N3, adjacent to Waterville Park. The suitability of water features and associated foraging, roosting, and nesting habitats, located within or directly adjacent to the Proposed Scheme, were assessed for kingfisher potential in October 2020. Where suitable habitat existed, surveys extended approximately 500m upstream and downstream of the proposed crossing point. Evidence of kingfisher activity at any potential nest holes was recorded.

4.6.2.1 Other Birds

- 102 The results of the desk study have informed the assessment of potential impacts on breeding bird species arising from the Proposed Scheme.
- 103 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.
- 104 There are no suitable wintering bird sites which would be subject to habitat loss by to the Proposed Scheme. One site, Belvedere Sports Grounds in Cabra is proximally located to the Proposed Scheme, but no loss of suitable forage territory will arise as a result of the Proposed Scheme, by virtue of the nature of the built ground that is required and as the Proposed Scheme is separated from the inland feeding areas by buildings. Therefore, winter bird surveys were deemed unnecessary for this scheme. The results of the desk study have informed the assessment of potential impacts on wintering bird species arising from the Proposed Scheme.

5 Overview of the Receiving Environment

5.1 European Sites

- 105 The Proposed Scheme does not overlap with any European site. The nearest European site is South Dublin Bay and River Tolka Estuary SPA followed by South Dublin Bay SAC, which are both located approximately 2.89km and 4.6km east of the Proposed Scheme, respectively as the crow flies.
- 106 The nearest European sites with a hydrological connection to the Proposed Scheme are North Bull Island SPA is also located in Dublin Bay, approximately 5.8km from the Proposed Scheme and South Dublin Bay and River Tolka Estuary SPA which is located approximately 6km downstream of the terminus at Ellis Quay, via the Liffey Estuary Upper. South Dublin Bay SAC is located approximately 6.8km downstream of the terminus at Ellis Quay, via the Liffey Estuary Upper. The Rye Water Valley / Carton SAC is located approximately 6.7km east of the Proposed Scheme.
- 107 There are eight European sites located in Dublin Bay that are hydrologically connected to the Proposed Scheme, via the following watercourses i.e. the River Tolka (Tolka_040), Tolka_050, the Royal Canal, and the Liffey Estuary Upper. In addition to this, the Proposed Scheme is hydrologically connected to Dublin Bay via the existing surface water sewer which discharges to Ringsend WWTP. These European sites include North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC and Dalkey Island SPA.
- 108 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 Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Ireland's Eye SPA, Lambay Island SPA, Howth Head Coast SPA, Dalkey Islands SPA, Rockabill SPA, and The Murrough SPA.
- 109 In addition, Lambay Island SAC is designated for mobile QI species known to utilise the Liffey Estuary, Tolka Estuary and Dublin Bay.
- 110 The European sites present in the vicinity of the Proposed Scheme are listed in Table 5, along with their qualifying interests and proximity to the Proposed Scheme and shown on Table 5.

Table 5: 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] 7220 Petrifying springs with tufa formation (Cratoneurion)* 1014 Narrow-mouthed Whorl Snail <i>Vertigo angustior</i> 1016 Desmoulin's Whorl Snail <i>Vertigo moulinsiana</i> <i>S.I. No. 494/2018 - European Union Habitats (Rye Water Valley/Carton Special Area of Conservation 001398) Regulations 2018</i> NPWS (2021) <i>Conservation objectives for Rye Water Valley / Carton SAC [001398]</i> . Version 1.0. Department of Housing, Local Government and Heritage.	Approximately 6.65km South West of 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 <i>Salicornia</i> and other annuals colonising mud and sand 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>) 1395 Petalwort <i>Petalophyllum ralfsii</i>	Approximately 6.03km East 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)
<p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)* 2190 Humid dune slacks</p> <p><i>S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: North Dublin Bay SAC 000206</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>South Dublin Bay SAC [000210] 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 2110 Embryonic shifting dunes</p> <p><i>S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: South Dublin Bay SAC 000210</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 4.62km South East of the Proposed Scheme</p>
<p>Baldoyle Bay SAC [000199] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 <i>Salicornia</i> and other annuals colonizing mud and sand 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p><i>S.I. No. 472/2021 - European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021</i> NPWS (2012) <i>Conservation Objectives: Baldoyle Bay SAC 000199</i>. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</p>	<p>Approximately 10.14km North -East of the Proposed Scheme</p>
<p>Malahide Estuary SAC [000205] 1140 Mudflats and sandflats not covered by seawater at low tide 1310 <i>Salicornia</i> and other annuals colonising mud and sand 1320 <i>Spartina</i> swards (<i>Spartinion maritimae</i>) ** 1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) 1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>) 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p><i>S.I. No. 91/2019 - European Union Habitats (Malahide Estuary Special Area of Conservation 000205) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: Malahide Estuary SAC 000205</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 12.2km North East of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
<p>Howth Head SAC [000202] 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths</p> <p><i>S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021.</i> NPWS (2016) <i>Conservation Objectives: Howth Head SAC 000202</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	<p>Approximately 11.72km East of the Proposed Scheme</p>
<p>Rockabill to Dalkey Island SAC [003000] 1170 Reefs 1351 Harbour porpoise <i>Phocoena phocoena</i></p> <p><i>S.I. No. 94/2019 - European Union Habitats (Rockabill to Dalkey Island Special Area of Conservation 003000) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: Rockabill to Dalkey Island SAC 003000</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 12.19km East of the Proposed Scheme</p>
<p>Lambay Island SAC [000204] 1170 Reefs 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 1364 Grey seal <i>Halichoerus grypus</i> 1365 Harbour seal <i>Phoca vitulina</i></p> <p><i>S.I. No. 294/2019 - European Union Habitats (Lambay Island Special Area of Conservation 000204) Regulations 2019</i> NPWS (2013) <i>Conservation Objectives: Lambay Island SAC 000204</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 21.28km North East of the Proposed Scheme</p>
<p>Glenasmole Valley SAC [001209] 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7220 Petrifying springs with tufa formation (Cratoneurion)*</p> <p><i>S.I. No. 345/2021 – European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021</i> NPWS (2021) <i>Conservation objectives for Glenasmole Valley SAC [001209]</i>. Version 1.0. Department of Housing, Local Government and Heritage</p>	<p>Approximately 11.33km South of the Proposed Scheme</p>
<p>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 <i>Erica tetralix</i> 4030 European dry heaths 4060 Alpine and Boreal heaths</p>	<p>Approximately 11.97km South of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
6130 Calaminarian grasslands of the <i>Violetalia calaminariae</i> 6230 Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)* 7130 Blanket bogs (* if active bog) 8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>) 8210 Calcareous rocky slopes with chasmophytic vegetation 8220 Siliceous rocky slopes with chasmophytic vegetation 91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles 1355 <i>Lutra</i> (Otter) NPWS (2017) <i>Conservation Objectives: Wicklow Mountains SAC 002122</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	
Special Protection Area (SPA)	
North Bull Island SPA [004006] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A052 Teal <i>Anas crecca</i> A054 Pintail <i>Anas acuta</i> A056 Shoveler <i>Anas clypeata</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A144 Sanderling <i>Calidris alba</i> A149 Dunlin <i>Calidris alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A160 Curlew <i>Numenius arquata</i> A162 Redshank <i>Tringa totanus</i> A169 Turnstone <i>Arenaria interpres</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A999 Wetlands & Waterbirds <i>S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.</i> NPWS (2015) <i>Conservation Objectives: North Bull Island SPA 004006</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 6.02km East of the Proposed Scheme
South Dublin Bay and River Tolka Estuary SPA [004024] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A137 Ringed Plover <i>Charadrius hiaticula</i>	Approximately 2.89km East 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)
<p>A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A144 Sanderling <i>Calidris alba</i> A149 Dunlin <i>Calidris alpina</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A162 Redshank <i>Tringa totanus</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.</i> NPWS (2015) <i>Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Baldoye Bay SPA [004016] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoye Bay Special Protection Area 004016)) Regulations 2010.</i> NPWS (2013) <i>Conservation Objectives: Baldoye Bay SPA 004016</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 10.56km North East of the Proposed Scheme</p>
<p>Malahide Estuary SPA [004025] A005 Great Crested Grebe <i>Podiceps cristatus</i> A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A054 Pintail <i>Anas acuta</i> A067 Goldeneye <i>Bucephala clangula</i> A069 Red-breasted Merganser <i>Mergus serrator</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A149 Dunlin <i>Calidris alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i></p>	<p>Approximately 12.2km North East of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
<p>A162 Redshank <i>Tringa totanus</i> A999 Wetland and Waterbirds</p> <p><i>S.I. No. 285/2011 - European Communities (Conservation of Wild Birds (Malahide Estuary Special Protection Area 004025)) Regulations 2011.</i> NPWS (2013) <i>Conservation Objectives: Malahide Estuary SPA 004025</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	
<p>Wicklow Mountains SPA [004040] A098 Merlin <i>Falco columbarius</i> A103 Peregrine <i>Falco peregrinus</i></p> <p><i>S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.</i> NPWS (2022) <i>Conservation objectives for Wicklow Mountains SPA [004040]</i>. Generic Version 9.0. Department of Housing, Local Government and Heritage</p>	Approximately 13.66km South of the Proposed Scheme
<p>Ireland's Eye SPA [004117] A017 Cormorant <i>Phalacrocorax carbo</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i></p> <p><i>S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010.</i> NPWS (2022) <i>Conservation objectives for Ireland's Eye SPA [004117]</i>. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	Approximately 14.29km East of the Proposed Scheme
<p>Rogerstown Estuary SPA [004015] A043 Greylag Goose <i>Anser anser</i> A046 Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A056 Shoveler <i>Anas clypeata</i> A130 Oystercatcher <i>Haematopus ostralegus</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A141 Grey Plover <i>Pluvialis squatarola</i> A143 Knot <i>Calidris canutus</i> A149 Dunlin <i>Calidris alpina alpina</i> A156 Black-tailed Godwit <i>Limosa limosa</i> A162 Redshank <i>Tringa totanus</i> A999 Wetlands</p> <p><i>S.I. No. 271/2010 - European Communities (Conservation of Wild Birds (Rogerstown Estuary Special Protection Area 004015)) Regulations 2010.</i> NPWS (2013) <i>Conservation Objectives: Rogerstown Estuary SPA 004015</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	Approximately 16.54km North East 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)
<p>Howth Head Coast SPA [004113] A188 Kittiwake <i>Rissa tridactyla</i></p> <p><i>S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012.</i></p> <p>NPWS (2022) <i>Conservation objectives for Howth Head Coast SPA [004113].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 14.46km East of the Proposed Scheme</p>
<p>Dalkey Islands SPA [004172] A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i></p> <p><i>S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010</i></p> <p>NPWS (2022) <i>Conservation objectives for Dalkey Islands SPA [004172].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 14.45km South East of the Proposed Scheme</p>
<p>Lambay Island SPA [004069] A009 Fulmar <i>Fulmarus glacialis</i> A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i> A043 Greylag Goose <i>Anser anser</i> A183 Lesser Black-backed Gull <i>Larus fuscus</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i> A204 Puffin <i>Fratercula arctica</i></p> <p><i>S.I. No. 242/2010 - European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.</i></p> <p>NPWS (2022) <i>Conservation objectives for Lambay Island SPA [004069].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 21.22km North East of the Proposed Scheme</p>
<p>Skerries Islands SPA [004122] A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i> A046 Brent Goose <i>Branta bernicla hrota</i> A148 Purple Sandpiper <i>Calidris maritima</i> A169 Turnstone <i>Arenaria interpres</i> A184 Herring Gull <i>Larus argentatus</i></p> <p><i>S.I. No. 245/2010 - European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.</i></p> <p>NPWS (2022) <i>Conservation objectives for Skerries Islands SPA [004122].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 26.16km North East of the Proposed Scheme</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Scheme (as the crow flies)
<p>Rockabill SPA [004114] A148 Purple Sandpiper <i>Calidris maritima</i> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i></p> <p><i>S.I. No. 94/2012- European Communities (Conservation of Wild Birds (Rockabill Special Protection Area 004114)) Regulations 2012.</i> NPWS (2013) <i>Conservation objectives for Rockabill SPA [004114]</i>. Generic Version 1.0. Department of Arts, Heritage and the Gaeltacht.</p>	<p>Approximately 27.6km North East of the Proposed Scheme</p>
<p>The Murrough SPA [004186] A001 Red-throated Diver <i>Gavia stellata</i> A043 Greylag Goose <i>Anser anser</i> A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A050 Wigeon <i>Anas penelope</i> A052 Teal <i>Anas crecca</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A184 Herring Gull <i>Larus argentatus</i> A195 Little Tern <i>Sterna albifrons</i></p> <p><i>S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.</i> NPWS (2022) <i>Conservation objectives for The Murrough SPA [004186]</i>. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>Approximately 31.13km South East of the Proposed Scheme</p>

** NPWS note that *Spartina* swards are now considered non-native species and as such no targets are set in respect of this habitat nor is necessary to assess the likely effects of plans or projects against this Annex I habitat at this site.

5.1.1 Habitats

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

- Flower beds and borders (BC4);
- Stone walls and other stonework (BL1);
- Buildings and artificial surfaces (BL3);
- Tidal rivers (CW2);
- Exposed sand, gravel or till (ED1)
- Spoil and bare ground (ED2);
- Recolonising bare ground (ED3);
- Depositing/ lowland rivers (FW2);
- Canals (FW3);
- Amenity Grassland (Improved) (GA2);
- Dry calcareous and neutral grassland (GS1);

- Dry meadows and grassy verges (GS2);
- Residential;
- (Mixed) broadleaved woodland (WD1);
- Mixed broadleaved / conifer woodland (WD2);
- Scattered trees and parkland (WD5);
- Hedgerows (WL1);
- Treelines (WL2);
- Wet willow-alder-ash woodland (WN6);
- Scrub (WS1);
- Immature woodland (WS2); and,
- Ornamental/ non-native shrub (WS3).

112 No Annex I habitats were recorded inside the boundary of the Proposed Scheme. However, small fragmentary sections of priority Annex I Alluvial woodland (corresponding to Fossitt classification category Wet willow-alder-ash woodland (WN6) and following on from Perrin *et al.* (2008), which described the habitat as degraded WN6 aligned Annex I alluvial woods (91E0), with were recorded along the River Tolka valley north of the N3 road. The example of Alluvial woodland along the River Tolka is not part of any SAC resource. The nearest European site for this habitat is Knocksink Wood SAC [000725] to south of the Proposed Scheme and the River Boyne and River Blackwater SAC [002162], to the North-west, both of which are in separate catchments and for which no groundwater linkage is known.

5.1.2 Flora and Fauna Species

5.1.2.1 Flora

- 113 No records of any Annex II plant species were recorded within the footprint of the Proposed Scheme during field surveys.
- 114 The desk study review returned records of a total of seven species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations across the wider study area (i.e. Grid Squares O03 and O14) (Appendix IV). Records within close proximity to the Proposed Scheme include American skunk-cabbage *Lysichiton americanus*, Canadian waterweed *Elodea canadensis*, giant hogweed *Heracleum mantegazzianum*, bohemian knotweed *Reynoutria japonica x sachalinensis = R. x bohemica*, Japanese knotweed *Reynoutria japonica*, three-cornered garlic *Allium triquetrum*, and water fern *Azolla filiculoides*.
- 115 There were five areas of the non-native invasive plant species, Himalayan balsam listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 identified along or adjacent to the Proposed Scheme. These locations are summarised below in Table 6.
- 116 The presence of Himalayan balsam, previously recorded at a location south of Old Corduff road was visually reconfirmed in October 2020.

Table 6: Non-native Invasive Plant Species Listed in the Third Schedule of the Birds and Habitats Regulations 2011 recorded along or adjacent to the Proposed Scheme

Reference	Species	Location relative to Proposed Scheme Boundary	Approximate Distance to Proposed Scheme Boundary	Location
CBC05IAPS001	Himalayan balsam <i>Impatiens glandulifera</i>	Outside	129m	Scattered along the banks of the River Tolka adjacent to the junction with Snugborough Road R843 (Grid Ref: O 07773 39220).
CBC05IAPS002	Himalayan balsam <i>Impatiens glandulifera</i>	Outside	135m	Scattered along the banks of the River Tolka adjacent to the junction of the N3 and the M50 (Grid Ref: O 07886 39091).
CBC05IAPS003	Himalayan balsam <i>Impatiens glandulifera</i>	Outside	19m	Scattered along the banks of the River Tolka adjacent to the junction of the N3 and the M50 (Grid Ref: O07896 39403).
CBC05IAPS004	Himalayan balsam <i>Impatiens glandulifera</i>	Outside	2.5m	Scattered along the banks of the River Tolka adjacent to the junction with Snugborough Road R843 (Grid, Ref: O 08776 38503).
CBC05IAPS005	Himalayan balsam <i>Impatiens glandulifera</i>	Outside	44m	Scattered along the banks of the River Tolka adjacent to the junction of the N3 and the M50 (Grid, Ref: O 08913 38537).

5.1.2.2 Otter

- 117 The desk study found that otter are known to occur within 1km of the Proposed Scheme, and across the wider study area. Records of otter were returned from the River Tolka at New Dunsink Lane R102 and Waterville Park adjacent to the M50 Blanchardstown Bypass downstream of the junction with Snugborough Road. There are also records of otter along the River Liffey and the Royal Canal ¹³ (Appendix IV).
- 118 Signs of otter, an Annex II species, were recorded during surveys within the footprint of the Proposed Scheme, along the River Tolka, where it flows under the Blanchardstown Bypass, east of Blanchardstown Garda Station. An otter spraint and a gelatinous otter spraint were recorded on the Blanchardstown Bypass underpass, north of Herbert Road. Signs of mammal activity i.e. disturbance of the riverbank and footprints were also recorded in this area. A potential (degraded) otter spraint was observed at the Tolka river road bridge underpass (structure BC1), although the footprints were of small mammals. A gelatinous spraint was also noted on the upstream side of structure BC1. The 2022 survey along the River Tolka noted two

¹³ 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.*

additional records alongside CBC0005AR001, where a single otter footprint and a degraded spraint - possibly otter were recorded.

119 The surveys carried out by Triturus Environmental Ltd. in October and November 2020 also recorded regular otter sprainting at both survey sites on the River Tolka (See Appendix VI for further details).

120 The nearest European site for which this species is designated is the Wicklow Mountains SAC, which is located approximately 12km south of the Proposed Scheme. The SAC is located within a different sub-catchment (Dodder_SC_010) to the Proposed Scheme which falls within (Tolka_SC_10 and Tolka_SC_020). As such, populations of otter within the footprint of the Proposed Scheme are not deemed to be connected to the SAC population.

5.1.2.3 Marine mammals

121 The Proposed Scheme terminates at Ellis Quay at the Liffey Estuary Upper. The Proposed Scheme is hydrologically connected to the Tolka Estuary and discharges into the Liffey Estuary Lower following treatment at Ringsend WWTP.

122 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 IV of the Habitats Directive. The nearest European site for which harbour seal and grey seal have been designated is Lambay Island SAC located approximately 22.4km from the Proposed Scheme. The nearest European site for which harbour porpoise has been designated is Rockabill to Dalkey Island SAC located approximately 12.6km from the Proposed Scheme.

5.1.2.4 Kingfisher

123 The desk study (Appendix IV of this NIS) 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 and the River Tolka are known to support populations of kingfisher¹⁴

124 Habitat suitability assessments surveys carried out in October 2020 recorded suitable nesting habitat for kingfisher along the River Tolka, adjacent to the Blanchardstown Bypass, north of Snugborough Road. The riverbanks in this section of the River Tolka were bare and therefore, suitable for nesting kingfisher. A kingfisher was observed flying along the River Tolka during field surveys, less than 70m from the Proposed Scheme. It is therefore likely that kingfisher nest, forage and roost in the vicinity of the Proposed Scheme, although no suitable nesting habitat was noted at any watercourse intersected by the Proposed Scheme

125 The nearest European site for which this species is designated is River Boyne and River Blackwater SPA, which is located approximately 28.8km from the Proposed Scheme. Kingfisher populations within close proximity to the Proposed Scheme are not deemed to be SCI species

5.1.2.5 Other Birds

126 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*, lesser black-backed gull *Larus fuscus* (See Appendix IV).

127 The desk study returned records of a total of 110 birds -some of which protected vagrants that are not Red listed (i.e. Grid Squares O03 and O13). Fifty four (54) species listed as SCIs for SPAs, five Birds Directive Annex I species, 13 Red list and 16 Amber list. The majority of wintering birds identified in the desk-based review are typically found in coastal, estuarine and intertidal habitats including the Liffey Estuary, Tolka Estuary and Dublin Bay. A desk-based review of lands within 300m of the Proposed Scheme returned records of six SCI wintering bird species which may use inland amenity grassland feeding sites, including

¹⁴ DCC (2015) Dublin City Biodiversity Action Plan 2015-2020.

light-bellied brent goose, lapwing, oystercatcher, black-headed gull, herring gull and lesser black-backed gull.

128 A review of a study into light-bellied brent goose inland feeding sites¹⁵ has identified no known inland wintering bird feeding sites in the footprint of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the general construction works disturbance Zol¹⁶. None will be directly impacted by the Proposed Scheme and there will be no habitat loss at any of these sites. There were no known inland feeding sites within 800m of major works (i.e. sheet piling) at Structures 1 and 2¹⁷.

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

5.1.2.6 Hydrology

The Proposed Scheme will cross two watercourses at three locations: the River Tolka and the Royal Canal as well as a tie-in to the River Liffey at Ellis Quay. The drainage system for the Proposed Scheme will discharge to the following surface water receptors; Tolka_040, Tolka_050, Royal Canal, Dublin Zoo ponds, Liffey Estuary, and to Ringsend WwTP (which ultimately discharges to Liffey Estuary Lower, Dublin Bay, post treatment). At Kinvara Avenue the surface water begins to drain to towards the Liffey Estuary Upper, including via some ponds at Dublin Zoo. A sub-catchment assessment identifies that inefficient drainage systems and misconceptions as well as diffuse urban runoff are causing most issues relating to water quality. The drainage along the route of the Proposed Scheme is a mixture of foul, surface and combined sewers.

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 7.

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.

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

¹⁷ Rees *et al.* (2005) found that impulsive noise disturbance (e.g. airport bird scaring) alerted Whooper swans at distances of up to c.800m. Methods using sheet piling and / or blasting would be expected to be similar to those described above for general construction related disturbance—i.e. greater than 60dB. As a precautionary approach, 800m is used as the zone within which some level of disturbance may occur from construction activities involving high disturbance works.

Table 7: Water Quality of Watercourses/Waterbodies in the vicinity of the Proposed Scheme

Watercourse	Location in relation to the Proposed Scheme	EPA Q-Values (Monitoring Station) and Water Framework Directive Water Quality Status / Risk Score	Name of and Distance to Downstream Waterbodies along with their associated Water Quality
River Tolka (Tolka_030)	Outside study area – assessed in water chapter owing to fact that displaced traffic (>10,000 AADT) on short sections of some roads drain to Tolka_030	Q2-3 (Mulhuddart bridge) Poor 'At Risk'	Hydrologically connected to the Tolka Estuary and North Dublin Bay SAC, however this is >5km (17km) from the downstream extent of the waterbody
River Tolka (Tolka_040; Tolka_050)	Two existing crossing points at the Blanchardstown Bypass, to the east of Blanchardstown Garda Station and the north of Herbert Road.	Q3 (Old Corduff Road u/s Blanchardstown, Abbottstown Bridge) Poor 'At risk'	It flows for approximately 11.8km, from the crossing point north of Herbert Road, until it reaches the Tolka Estuary transitional waterbody (classified as "Potentially Eutrophic"), which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Royal Canal	One existing crossing point where the Royal Canal flows under the junction of the M50 and the Navan Road.	Not applicable	It flows for approximately 9.5km, from the crossing point at the M50 junction, until it reaches the Liffey Estuary Lower transitional waterbody (classified as "Unpolluted") at North Wall Quay, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Dublin Zoo Ponds	Hydrologically connected to the Proposed Scheme via existing surface water drainage.	Not applicable	The outlet from these ponds is connected into the combined sewer system for treatment at Ringsend WWTP. It flows into the Liffey Estuary Lower transitional waterbody (classified as "Unpolluted") at Grand Canal Dock.
Liffey Estuary Upper	The terminus of the Proposed Scheme at Ellis Quay is located 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 "Unpolluted") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Liffey Estuary Lower	Hydrologically connected to the Proposed Scheme via Ringsend WWTP.	Q-Value Score not applicable Good 'At risk'	The Liffey Estuary Lower transitional waterbody (classified as "Unpolluted") at Grand Canal Dock, which ultimately drains to Dublin Bay coastal waterbody (classified as "Unpolluted").
Dublin Bay	Hydrologically connected to the Proposed Scheme via the River Tolka, Royal Canal,	Q-Value Score not applicable	The Dublin Bay coastal waterbody is classified as "Unpolluted".

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
	and the Liffey Estuary Lower.	Good 'Not at risk'	

5.1.3 Hydrogeology

129 The Geological Survey of Ireland (GSI) data indicates that the bedrock formation 1:500k in the Proposed Scheme is *"Dark-grey argillaceous & cherty limestone and shale (Calp)"*.

130 The Proposed Scheme transverses one groundwater body. Environmental data sourced from the EPA for each of these groundwater bodies is presented below:

Dublin Groundwater Body

- For the majority of this area, it is considered to be of *"Good"* Groundwater body WFD Status (2013-2018) and *"not at risk"* of failing the WFD groundwater quality objectives for the majority of its area;
- The aquifers located within this groundwater body and where the Proposed Scheme transverses are classified as *"locally important aquifer - moderately productive only in local zones"* and *poor aquifer - bedrock which is generally unproductive except for local zones*

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

5.1.4 Soils & Geology

131 The 1:100,000 GSI bedrock geology map of the area indicates that the underlying bedrock along the Proposed Scheme comprises the Lucan Formation- (Calp) dark limestone and shale, and the Tober Colleen formation- Calcareous shale, limestone conglomerate. The GSI Quaternary subsoils map¹⁸ shows the footprint of the Proposed Scheme is predominantly underlain by till derived from limestone along with areas of gravels derived from limestone, alluvial deposits and bedrock subcrop / outcrop. Urban fill is recorded from Kings Street North to the River Liffey in the City Centre.

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

132 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,

¹⁸ GSI (2016a). Quaternary geology of Ireland – Sediments Map. [Online] Available from <https://secure.dccae.gov.ie/arcgis/rest/services/Quaternary/QuaternarySediments16/MapServer>

- Disturbance and displacement impacts.

6.1 Habitat loss and fragmentation

- 133 The Proposed Scheme does not overlap with any European site. The nearest European site with a hydrological connection to the Proposed Scheme is South Dublin Bay and River Tolka Estuary SPA which is located approximately 6km downstream of the terminus at Ellis Quay, via the Liffey Estuary Upper. This is followed by South Dublin Bay SAC which is located approximately 6.8km downstream of the terminus at Ellis Quay, via the Liffey Estuary Upper. The Rye Water Valley/Carton SAC is located approximately 6.7km east of the Proposed Scheme. Therefore, there is no potential for direct habitat loss and fragmentation to occur.
- 134 Special Conservation Interest (SCI) species for which SPAs in the vicinity of the Proposed Scheme have been designated are known to utilise *ex situ* feeding sites in the Dublin area (i.e. Malahide Estuary SPA, Baldoyle Bay SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrrough SPA). The Proposed Scheme will not result in the loss of sites suitable to support breeding gull and wintering bird species. This includes the land take at Belvedere Sports Ground Cabra, as it is along the roadside boundary of the facility and is separated from the likely foraging territory by long established buildings.
- 135 Therefore, there is no potential for impacts on SCI species associated with SPAs to occur as a result of habitat loss/ fragmentation. Therefore, there is no potential for in combination effects to occur.

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, Rockabill SPA, Ireland's Eye SPA, Lambay Island SPA and The Murrrough SPA

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

- 136 The Proposed Scheme is hydrologically connected to Dublin Bay via the River Tolka, Liffey Estuary Upper and the Royal Canal, as well as a network of interconnecting and established surface or combined sewer/surface water pipes. The general proposed construction works within the footprint of the Proposed Scheme largely include works to existing pavements and road surfaces, and proposed drainage works. The construction of the culvert extension at the Tolka Bridge (BR01), Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07) will include vegetation clearance, excavations, structural works, and the operation of machinery. 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. The associated effects of a reduction of surface water quality could potentially extend for a considerable distance downstream of the location of the accidental pollution event or the discharge point and therefore impact downstream waterbodies, i.e., Dublin Bay, within which European sites are located: North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA. This reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within these European sites, which in turn would negatively affect the SCI bird species that rely upon these habitats as foraging and / or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI bird species. These potential impacts could occur to such a degree that the conservation objectives of the North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and Dalkey Islands SPA are undermined.
- 137 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 mobile 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 and Lambay Island SPA, Ireland's Eye SPA, North Dublin Bay SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA, The Murrrough SPA and, marine mammals associated with Rockabill to Dalkey Island SAC and Lambay Island SAC. This reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within downstream European sites, which in turn could negatively affect the SCI bird species that rely upon these habitats as foraging and / or roosting habitat. It could also negatively affect the quantity and quality of prey available to SCI and QI populations.

- 138 As the Proposed Scheme has the potential to result in habitat degradation of the qualifying / special conservation interest species of European sites as the result of hydrological impacts, there is the potential for in-combination effects to occur

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

6.3 Habitat degradation as a result of hydrogeological impacts

- 139 During surveys for the Proposed Scheme fragmentary parcels of Priority Annex I Alluvial Woodland habitat were identified on the alluvial floodplain of the River Tolka within Corduff Park, Waterville Park and in the grounds of Connolly Hospital Blanchardstown, all outside the Boundary of the Proposed Boundary. It is an *ex-situ* habitat and the nearest European sites for its presence are Knocksink Wood SAC to the South and the River Boyne and River Blackwater SAC to the north-west, both of which are in different sub-catchments and for which no hydrogeological pathway is identified.
- 140 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.
- 141 The underlying aquifers are either Locally Important Bedrock Aquifer, Moderately Productive only in Local Zones or Poor Bedrock Aquifer, generally unproductive except in Local Zones. The potential for hydrogeological impacts are highly variable depending on the nature of the proposed works at specific locations and the receiving environment ground conditions. Any drawdown from excavations is expected to be limited, localised, not extending into the boundary of the pNHA site, and temporary. There is a risk of pollutants entering the groundwater as a result of spillages or accidents where mitigation measures are not implemented. Therefore, the magnitude of this impact is considered small adverse. As the importance of the *ex-situ* alluvial woodland is very high the resulting significance of the impact is moderate. The unmitigated hydrogeological Zol of the Proposed Scheme does not extend to any groundwater dependent terrestrial ecosystems linked to European sites. This Zol is determined by the professional judgement of the hydrogeology specialists.
- 142 In summary therefore the Proposed Scheme does not have the potential to result in habitat degradation of the qualifying / special conservation interest species of any European site as the result of hydrogeological impacts.

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

- 143 There are five areas of Himalayan balsam, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, 2011 present within, or in close proximity to, the Proposed Scheme. The desktop review returned records of seven species listed on the Third Schedule of the (Birds and Natural Habitats)

Regulations, 2011 in the vicinity of the Proposed Scheme. In the absence of mitigation, there is potential for these species to spread or be introduced, during construction and / or routine maintenance/management works, to terrestrial habitat areas in European sites downstream in Dublin Bay (i.e. North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA). These in turn, may result in the degradation of the existing habitats and therefore undermine the conservation objectives of these European sites.

- 144 It is considered unlikely that invasive species could spread to European sites which are located a significant distance from the outfall locations of the Royal Canal, River Tolka, Liffey Estuary Upper and Ringsend Wastewater Treatment Plant (i.e. Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, Ireland's Eye SPA, The Murrrough SPA and Dalkey Islands SPA).
- 145 As the Proposed Scheme has the potential to result in habitat degradation of the qualifying / special conservation interest species of European sites as the result of the spread of invasive species, there is the potential for in combination effects to occur in association with other activities/ projects / plans.

The Zol 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

- 146 A reduction in air quality within the immediate vicinity of the construction works may occur as a consequence of dust deposition associated with these construction activities. This includes reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Furthermore, emissions from car exhausts, and the deposition of particulate matter and heavy metals produced by engine, brake and tyre wear, can contribute to increased deposition of pollutants such as oxides of nitrogen (NO_x, NO_s), volatile organic compounds (VOCs), particulate matter (PM), heavy metals (HM) and ammonia (NH₄) in the vicinity of a road carriageway. This can affect the ecosystems and vegetation present, influencing plant growth rates and species composition, diversity, and abundance.
- 147 The unmitigated Zol for air quality effects arising from the Proposed Scheme has the potential to extend 50m from the Proposed Scheme boundary, and 500m from Construction Compounds during the construction phase, and up to 200m the Proposed Scheme boundary during the operational phase. There are no European sites present within these distances.
- 148 As the Proposed Scheme does not have the potential to result in habitat degradation of the qualifying / special conservation interest species of any European site as the result of air quality impacts, either during the construction phase or the operational phase, there is no potential for in combination effects to occur in that regard.

6.6 Disturbance and Displacement Impacts

- 149 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 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 150m¹⁹. For birds, disturbance effects would not be expected to extend beyond a distance of approximately 300m²⁰, as noise levels

¹⁹ This is consistent with Transport Infrastructure Ireland (TII) guidance (Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes and Guidelines for the Treatment of Badgers prior to the Construction of National Road Schemes) documents. This is a precautionary distance, and likely to be moderated by the screening effect provided by surrounding vegetation and buildings, with the actual Zol of construction related disturbance likely to be much less in reality.

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

associated with general construction activities would attenuate to close to background levels at that distance. A precautionary distance of 800m is considered at major works (i.e. sheet piling) at Structures BR01 (culvert extension at the Tolka Bridge (BR01)) and BR02 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07))²¹. There are no European sites within the disturbance Zol of the Proposed Scheme.

- 150 Signs of otter were recorded during field surveys of the Proposed Scheme, on the River Tolka. Additionally, the River Tolka, River Liffey, and the Royal Canal are known to support populations of otter, an Annex II and IV mammal species. The nearest SAC to the proposed development site for which otter has been designated is Wicklow Mountains SAC which is located approximately 12km south of the Proposed Scheme. Research carried out by Ó Néill *et al.* (2008) on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged 7.5km while male otter home ranges varied between 7-19km. While the Proposed Scheme is within the potential home range of male otter, the Proposed Scheme is located in a different catchment to the Wicklow Mountains SAC, therefore it is not considered likely that the otter present in the vicinity of the Proposed Scheme are associated with the QI populations of any European site.
- 151 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 whose southern boundary is located at Ellis Quay approximately 6.7km upstream of Dublin Bay, in a highly urbanised environment. This is because of the terrestrial nature of the Proposed Scheme along urbanised transport corridor and the scale of works proposed in the vicinity of the Liffey Estuary which are considered to be minor.
- 152 Signs of kingfisher were recorded during field surveys of the Proposed Scheme, on the River Tolka, and populations of kingfisher, an Annex I bird species, are known to be present in the wider study area, in particular, along the River Liffey and the River Tolka. 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 catchment²². The nearest SPA for which kingfisher has been designated is the River Boyne and Blackwater SPA which is located in a separate catchment approximately 28.8km away, therefore kingfisher present in the vicinity of the Proposed Scheme are not associated with an SPA population.
- 153 There are a number of SPAs which are designated for SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches (i.e. Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, and The Murrough SPA). These species include light-bellied brent goose, lapwing, oystercatcher, black-headed gull, herring gull and lesser black-backed gull. Suitable inland foraging / roosting sites, which these bird species utilise, are located within the potential Zol of the Proposed Scheme, although none are directly impacted by the Proposed Scheme (See Section 5.1.2).
- 154 In summary therefore the Proposed Scheme has the potential to result in the disturbance / displacement of the qualifying / special conservation interest species of any European sites.

The Zol of for disturbance associated with general construction activities for mammal species such as otter is 150m, while for wintering birds, disturbance effects would not ordinarily be expected to extend beyond

from birds, i.e. birds becoming alert and some behavioural changes (e.g. reduced feeding activity), but birds would be expected to habituate to noise levels within this range. Noise levels above 70dB would likely result in birds moving out of the affected zone, or leaving the site altogether. At approximately 300m, typical noise levels associated with construction activity (BS 5228) are generally below 60dB or, in most cases, are approaching the 50dB threshold.

²¹ Rees *et al.* (2005) found that impulsive noise disturbance (e.g. airport bird scaring) alerted Whooper swans at distances of up to approximately 800m. Methods using sheet piling and / or blasting would be expected to be similar to those described above for general construction related disturbance—i.e. greater than 60dB. As a precautionary approach, 800m is used as the zone within which some level of disturbance may occur from construction activities involving high disturbance works.

²² RSPB. *Kingfisher breeding, feeding and territory webpage*. Available from: <https://www.rspb.org.uk/birds-and-wildlife/wildlife-guides/bird-a-z/kingfisher/feeding-territory/>

a distance of approximately 300m. There are no European sites within the disturbance Zol of the Proposed Scheme, however SCI species are known to forage and /or roost in close proximity to the Zol.

6.7 Summary

- 155 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, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Howth Head Coast SPA, Dalkey Islands SPA, Malahide Estuary SPA, Rockabill SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA and the Murrough SPA.
- 156 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 8.

Table 8: 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 Zol of the Potential Effects	Are there any European sites within the Zol of the Proposed Scheme?
Habitat loss No European sites are at risk of direct habitat loss impacts. There is no potential for loss of <i>ex situ</i> inland feeding sites used by SCI wintering bird species.	No There are no European sites at risk of habitat loss impacts associated with 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. North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrough SPA.
Habitat degradation as a result of 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 Although no non-native invasive species were recorded within the boundary of the Proposed Scheme, there are non-native invasive species present adjacent to the Proposed Scheme and, therefore, a risk associated with the Proposed Scheme to downstream European sites from the spread / introduction of non-native invasive species.

Potential Direct, Indirect In Combination Effects and the Zol of the Potential Effects	Are there any European sites within the Zol of the Proposed Scheme?
	North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA.
Air quality impacts Potentially up to 200m from the Proposed Scheme boundary.	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 are <i>ex situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme ; namely Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.

7 Assessment of Potential Effects on European Sites

157 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.

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

159 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 SAC [000206] & South Dublin Bay SAC [000210]

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

North Dublin Bay SAC

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

South Dublin Bay SAC

161 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* or eelgrass 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*

162 The qualifying interests of North Dublin Bay SAC and South Dublin Bay SAC, and the overall conservation objectives, are listed below in Table 9.

Table 9: Qualifying Interests and Conservation Objectives of North Dublin Bay SAC & South Dublin Bay SAC

Summary of Impermeable areas and SuDS proposed by waterbody	Summary of Impermeable areas and SuDS proposed by waterbody
<p>North Dublin Bay SAC [000206]</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1210 Annual vegetation of drift lines</p> <p>1310 <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>1395 Petalwort <i>Petalophyllum ralfsii</i></p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>2110 Embryonic shifting dunes</p> <p>2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>2130 Fixed coastal dunes with herbaceous vegetation (grey dunes)*</p> <p>2190 Humid dune slacks</p> <p><i>S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019</i></p> <p>NPWS (2013) <i>Conservation Objectives: North Dublin Bay SAC 000206</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	<p>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</p>
<p>South Dublin Bay SAC [000210]</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1210 Annual vegetation of drift lines</p> <p>1310 <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>2110 Embryonic shifting dunes</p> <p><i>S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019</i></p>	<p>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</p>

Summary of Impermeable areas and SuDS proposed by waterbody	Summary of Impermeable areas and SuDS proposed by waterbody
NPWS (2013) <i>Conservation Objectives: South Dublin Bay SAC 000210</i> . Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	

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

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 / 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 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

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 North Dublin Bay SAC and South Dublin Bay SAC, are:

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

7.1.3.1 Habitat degradation/effects on QI / SCI 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay. 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

167 There are five areas of the non-native invasive plant species, Himalayan balsam, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, 2011 present in close proximity to the Proposed Scheme. During construction and / or routine maintenance / management work, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Tolka, Royal Canal, Liffey Estuary Upper, Liffey Estuary Lower and Ringsend Wastewater Treatment Plant, all of which flow into Dublin Bay. 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 invasive species spread.

7.1.3.3 Summary

168 Table 10 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of North Dublin Bay SAC and South Dublin Bay SAC

Table 10: 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 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 7.1.4.1 will ensure that surface water quality in the receiving environment is protected. The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	No
Community extent / Hectares / Maintain the extent of the <i>Mytilus edulis</i> -dominated community, subject to natural processes			
Community structure: <i>Mytilus edulis</i> density / Individuals/m ² / Conserve the high quality of the <i>Mytilus edulis</i> dominated community, subject to natural processes			
Community distribution / Hectares / Conserve the following community types in a natural condition: Fine sand to sandy mud with <i>Pygospio elegans</i> and <i>Crangon crangon</i> community complex; Fine sand with <i>Spio martinensis</i> community complex			
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	Yes The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving	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 and sediment supply / Presence/ absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions	<p>sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area /distribution of intertidal / coastal habitats.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.</p>	<p>environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species..</p>	
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 (<i>Cakile maritima</i>), sea sandwort (<i>Honckenya peploides</i>), prickly saltwort (<i>Salsola kali</i>) and oraches (<i>Atriplex</i> spp.)			
Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover			
<p>Salicornia and other annuals colonising mud and sand [1310]</p> <p>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows:</p>			
Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession	<p>Yes</p> <p>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p>	<p>No</p>
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			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Physical structure: creeks and pans / Occurrence / Maintain creek and pan structure, subject to natural processes, including erosion and succession	The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.	The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
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 - <i>Spartina anglica</i> / Hectares / No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%			
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330] To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows:			
Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession	Yes An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a	Yes The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving	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: sediment supply Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions	<p>sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal/coastal habitats.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.</p>	<p>environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	
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 - <i>Spartina anglica</i> / Hectares / No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%			
<p>Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410]</p> <p>To maintain the favourable conservation condition of the habitat in the SAC, which is defined as follows:</p>			
Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession	Yes An accidental pollution event during construction or	Yes The mitigation measures described	No

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes	operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats. The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.	in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected. The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
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 - <i>Spartina anglica</i> / Hectares / No significant expansion of common cordgrass (<i>Spartina anglica</i>), with an annual spread of less than 1%			
<p>Embryonic shifting dunes [2110] To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows:</p>			

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.	<p>Yes</p> <p>Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and/or spread of invasive species.</p>	<p>No</p>
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 (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus arenarius</i>) 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 (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus arenarius</i>)			
Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover			
<p>Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120]</p> <p>To restore the favourable conservation condition of the habitat in the SAC, which is defined as follows:</p>			
Habitat area / Hectares / Area stable or increasing, subject to natural processes, including erosion and succession	<p>Yes</p> <p>Terrestrial habitats above the high tide line are not</p>	<p>Yes</p>	<p>No</p>

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes	at risk of effects from water pollution in Dublin Bay.		
Physical structure: functionality sediment supply / Presence/ absence of physical barriers / Maintain natural circulation of sediments and organic matter, without any physical obstructions	The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater.	The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	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: plant health of dune grasses / Percentage cover / 95% of marram grass (<i>Ammophila arenaria</i>) and/or lyme-grass (<i>Leymus arenarius</i>) 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 (<i>Ammophila arenaria</i>) and/or lymegrass (<i>Leymus arenarius</i>)			
Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-native species) to represent less than 5% cover			
<p>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:</p>			
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	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 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.	The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession			
Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes			
Vegetation structure: sward height / Centimetres / Maintain structural variation in the sward			
Vegetation composition: typical species and sub-community / 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 <i>Hippophae rhamnoides</i>) / 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.	Yes	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 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.	The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
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			
Vegetation structure: bare ground / Percentage cover / Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground			
Vegetation structure: vegetation height / Centimetres / Maintain structural variation within the sward			
Vegetation composition: typical species and sub-communities / Percentage cover at a representative number of monitoring stops / Maintain range of sub-communities with typical species listed in Delaney et al. (2013)			
Vegetation composition: cover of <i>Salix repens</i> / Percentage cover; centimetres / Maintain less than 40% cover of creeping willow (<i>Salix repens</i>)			
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			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Petalwort <i>Petalophyllum ralfsii</i> [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	Yes 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. The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.	Yes The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	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			
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			
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 alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition)	Yes The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	No
Community extent / Hectares / Maintain the extent of the <i>Zostera</i> dominated community, subject to natural processes			
Community structure: <i>Mytilus edulis</i> density / Individuals/m ² / Conserve the high quality of the <i>Zostera</i> dominated community, subject to natural processes			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
<p>Community distribution / Hectares / Conserve the following community type in a natural condition: Fine sands with <i>Angulus tenuis</i> community complex</p>	<p>and area/distribution of intertidal / coastal habitats.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat.</p>	<p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	
<p>Habitat area / Hectares / Area increasing, subject to natural processes, including erosion and succession</p>	<p>Yes</p> <p>An accidental pollution event during construction or operation could affect surface water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	
<p>Habitat distribution / Occurrence / No decline, or change in habitat distribution, subject to natural processes</p>			
<p>Physical structure: functionality and sediment supply / Presence/ absence of physical barriers / Maintain the natural circulation of sediment and organic matter, without any physical obstructions</p>			
<p>Vegetation structure: zonation / Occurrence / Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession</p>			
<p>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 (<i>Cakile maritima</i>), sea sandwort (<i>Honckenya peploides</i>), prickly saltwort (<i>Salsola kali</i>) and oraches (<i>Atriplex</i> spp.)</p>			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Vegetation composition: negative indicator species / Percentage cover / Negative indicator species (including non-natives) to represent less than 5% cover	physical structural integrity of the habitat.		
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 alone 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 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 7.1.4.1 will ensure that surface water quality in the receiving environment is protected. The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	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			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
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 – <i>Spartina anglica</i> / Hectares / No significant expansion of common cordgrass (<i>Spartina anglica</i>), 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 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 7.1.4.2 will prevent the introduction and / or spread of invasive species.	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 (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus arenarius</i>) should be healthy (i.e. green plant parts above ground and flowering heads present)			

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: sand couch (<i>Elytrigia juncea</i>) and/or lyme-grass (<i>Leymus arenarius</i>)			
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

169 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.

170 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).

171 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.

172 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.

173 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).

174 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 NIS will be implemented in full by the appointed contractor to the satisfaction of the NTA.

Measures to Protect Surface Water Quality

175 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.

176 A CEMP including a Non-Native Invasive Species Management Plan (ISMP) have been submitted with the application documentation to An Bord Pleanála (see Appendix III of this NIS).

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

- Construction Industry Research and Information Association (CIRIA) (2005) *Environmental Good Practice on Site (C692)*
- 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
- BPGCS005, *Oil Storage Guidelines*

Measures to Protect Surface Water Quality during Construction

177 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 any surface water drainage features, where feasible, 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 Compounds 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 (EIRP) has been included within Section 5.6 of 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 a 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.
- Measures to be implemented by the appointed contractor to minimise the risk of spills and contamination of soils and waters include:
 - Employing only a competent and experienced workforce, and site-specific training of site managers, foremen and workforce, including all subcontractors, in pollution risks and preventative measures;
 - Ensure that all areas where liquids (including fuel) are stored, or cleaning is carried out, are in designated impermeable areas that are isolated from the surrounding area and within a secondary containment system, e.g. by a roll-over bund, raised kerb, ramps or stepped access;

- The location of any fuel storage facilities will be considered in the design of the Construction Compound. These are to be designed in accordance with relevant guidelines and codes of best practice and will be fully bunded;
 - Good housekeeping at the site (daily site clean-ups, use of disposal bins, etc.) during the entire Construction Phase;
 - Potential pollutants to be adequately secured against vandalism;
 - Provision of proper containment of potential pollutants according to codes of best practice;
 - Thorough control during the entire Construction Phase to ensure that any spillage is identified at early stage and subsequently effectively contained and managed; and
 - Spill kits will be provided and be kept close to the storage area. Staff to be trained on how to use spill kits correctly.
- Water supplies shall be recycled for use in the wheel wash. All waters shall be drained through appropriate filter material prior to discharge from the construction sites.
 - 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.

178 Following implementation of specific mitigation measures outlined in this NIS and the Surface Water Management Plan (SWMP) (See Appendix III of this NIS), the majority of impacts will not be significant. However, there are some construction activities at the following locations which will require more specific measures. These areas are:

Constructions Compounds

- 179 Construction Compound BL1 at Old Navan Road is in close proximity the Tolka_040. Whilst there is an existing line of trees which would provide some form of protection during the set up and operation of the compound, the close proximity presents a risk for potential impacts from storage of materials and runoff. Silt curtains / bunding or infiltration trenches will be installed on the northern boundary of Construction Compound BL1 to prevent any silty water or spillages from reaching the waterbody. Fuels will be stored as close as possible to the southern boundary of Construction Compound BL1, where an existing low wall will act as a bund to protect surface water drains in the Old Navan Road to the south. All other potentially risk activities or storage of materials will similarly be located at the southern boundary of the site.
- 180 For Construction Compound BL2 at Junction 6 to the west of the M50, the existing wall will provide some measure of protection to any surface water connections within the car park; this wall will remain in place for the duration of the construction programme. To the north of the compound site, the surface water system will be protected through the use of filter drains or silt curtains at locations where there is potential for silty water runoff to those drains (the grassed area slopes towards the drains for a short distance). In addition, the surface water manhole in the grassed area will be clearly marked and protected from any possible contamination through the use of bunding or temporary sealing.
- 181 Construction Compound BL3 to the east of the M50, the only potential pathway to the Royal Canal is via surface water drains which may be present in the road which bisects the compound. Surface water drains

on the road will be identified clearly and bunded on the side of the Construction Compound, allowing the road to still drain freely.

- 182 All other generic measures relating to the set up and management of Construction Compounds, the storage of soil, materials and fuel as set out in the SWMP will be implemented for all three Construction Compounds.

BR01 Tolka Bridge Extension

- 183 Considering the works to the lands directly adjacent to the banks of the Tolka_040, the following mitigation measures, which are in line with IFI Guidelines on Protection of Fisheries During Construction Works Adjacent to Waters (2016) (IFI, 2016) on works adjacent to watercourses will be implemented by the appointed contractor to minimise and avoid impacts:

- All construction machinery operating near to the waterbody will be mechanically sound to avoid leaks of oils, hydraulic fluid, etc.
- Reinstatement of any banks affected during construction works near a watercourse will be reinstated back to pre-development conditions;
- Any bank-side clearance in the immediate area of the crossing will be kept to a minimum and adequate measures will be put in place to control or minimize the risk of siltation. This may include such measures as:
 - bunding and diversion of site runoff to settlement ponds,
 - stripping of topsoil. See Soils in A Guide to Landscape Treatments for National Road Schemes in Ireland (National Roads Authority, 2005), and where necessary, surfacing of site with granular material; and,
 - covering of temporary stockpiles.

- 184 Sheet piling will be installed on the land side of the existing gabion baskets to protect the Tolka_040 from the construction works and to retain the existing bank during excavation works for the bridge foundations. The sheet piles will be driven and installed in accordance with Inland Fisheries Ireland (IFI) Guidelines on Protection of Fisheries During Construction Works Adjacent to Waters (IFI 2016). Consultation was undertaken in June 2021 with IFI, and the works are deemed out of channel. Environmental mitigation measures including silt curtains and silt busters will be installed within the temporary working area, to mitigate potential impacts associated with surface water runoff on the River Tolka.

BR02 Mill Road Bridge and RW07A and RW07B Pedestrian Ramps at Mill Road

- 185 The structures to the northern side of N2 Dual Carriageway and the temporary working areas are in close proximity to the Tolka_040 and so there is increased risk of silty water or concrete washings reaching the Tolka_040 across surfaces or via local surface water drains.

- 186 In order to avoid or minimise impacts, local surface water drains will be bunded on the construction activity side and silt fences erected around the extent of the works to prevent accumulated silty water from leaving the site in the event of rainfall. All other generic measures relating to the storage of soil, materials and fuel as set out in the SWMP will also be applied here.

Measures to Protect Surface Water and Groundwater Quality during Operation

- 187 Mitigation for the operational phase has been built into the design of the Proposed Scheme. During the Operational Phase there will be a net increase in impermeable area for the road corridor will be 31054m² ultimately draining to Dublin Bay. . This increase in impermeable area will be managed for the Proposed Scheme through a combination of bioretention areas, filtration drains (FD), new surface water pipes (SW), oversized pipes (OSP) and ponds (Other). SuDS solutions are summarised in Table 3. Where no new paved areas are proposed, the existing drainage network will be retained and utilised (See Appendix II for Proposed Surface Water Drainage Works).

- 188 Elsewhere the following SuDS measures form part of the design:

- Grass Surface Water Channels, Swales and bio-retention areas/rain gardens are provided as road edge/footpath edge drainage collection systems. They provide treatment and will provide attenuation if required. A filter drain will be laid under the bio-retention areas to keep them dry during low return period rainfall events.
- Filter Drains are provided as road edge channels. These will comprise a perforated pipe with granular surround and are designed to convey, attenuate and treat run-off prior to discharge.
- Tree Pits and Oversized Pipes are provided in close proximity to the carriageway. These receive flows from the sealed pipe network and from footpaths, and are designed to convey, attenuate and treat run-off prior to discharge.

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

190 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.

191 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).

192 In the Operational Phase the maintenance regime for SuDS will be carried out by the local authorities and will be subject to their management procedures. No additional mitigation is required.

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

Confirmatory Pre-construction survey

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

Non-native Invasive Species Management Plan (ISMP)

194 Where a pre-construction invasive species survey has confirmed the presence of previously identified Third Schedule non-native invasive species, or identifies newly established non-native invasive species within the footprint of the Proposed Scheme, the ISMP produced will provide a detailed description of the infestations (e.g. approximate area of the respective colonies (m²), 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.

195 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.

196 The NTA will ensure that all control measures specified in the Proposed Scheme non-native ISMP shall be implemented by a suitably qualified and licenced specialist prior to the construction of the Proposed Scheme to control the spread of newly established non-native invasive species within the footprint of the Proposed Scheme. Furthermore, the appointed contractor will adhere to control measures specified within the Non-Native ISMP throughout the Construction Phase of the Proposed Scheme

197 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

198 Once the Proposed Scheme is in operation, the Local Authorities will implement a maintenance and management regime subject to their management procedures, where any introduction of non-native invasive plant species will be managed. No additional mitigation is required.

7.1.5 Residual Impacts

199 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 of North Dublin Bay SAC and South Dublin Bay SAC, and there are, therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of North Dublin Bay SAC and South Dublin Bay SAC. As is confirmed by the 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.

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

200 Following an examination, analysis and evaluation, in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of North Dublin Bay SAC and South Dublin Bay SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Dublin Bay SAC and South Dublin Bay SAC.

7.2 Howth Head SAC [000202], Rockabill to Dalkey Island SAC [003000], and Lambay Island SAC [000204]

7.2.1 Ecological Baseline Description for Howth Head SAC

201 According to the Natura 2000 Standard Data Form (NPWS, 2020c). This SAC is a rocky headland situated on the northern side of Dublin Bay. This SAC has been designated for the Annex I habitats: [1230] Vegetated Sea Cliffs and [4030] Dry Heath. The flora within this SAC is diverse, and there are records of several Red data book species and species of very restricted Irish distribution. The dry heath and sea cliff vegetation is extensive and well developed. Major threats to the site include walking, horse-riding and non-motorised vehicles, burning vegetation, mining and quarrying

7.2.2 Ecological Baseline Description for Rockabill to Dalkey Island SAC

202 According to the Natura 2000 Standard Data Form (NPWS, 2020d), this SAC is a marine site that is a rectangle shaped area extending from Rockabill south to Dalkey Island in south Dublin. The SAC has been selected for the Annex I habitat: [1170] Reefs. The only species listed as a 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.

7.2.3 Ecological Baseline Description for Lambay Island SAC

203 According to the Natura 2000 Standard Data Form (NPWS, 2019b), this SAC is Ireland's largest east coast island, lying 4km off Dublin. The island is surrounded by steep cliffs on the northern, eastern and southern

sides which hold internationally important populations of seabirds. Most of the western third of the island is intensively farmed, while the remainder 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.

7.2.4 Qualifying Interests and Conservation Objectives of Howth Head SAC and Rockabill to Dalkey Island SAC and Lambay Island SAC.

204 The qualifying interests of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC and the overall conservation objectives, are listed in Table 11.

Table 11: Qualifying Interests and Conservation Objectives of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC.

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

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

206 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 qualifying interests of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC are presented in Section 7.2.5.2.

7.2.5 Examination and Analysis of Potential Direct and Indirect Impacts

207 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 Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC are:

7.2.5.1 Habitat degradation as a result of hydrological impacts

208 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 (e.g. fuel, oils, lubricants, paints, bituminous coatings, preservatives, weed killer, lime and concrete) 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 directly hydrologically connected to two surface water features, the River Tolka and the Royal Canal, both of which flow into Dublin Bay. Therefore, there is potential (albeit unlikely) for the Proposed Scheme to result in significant effects which could have implications for the conservation objectives of Howth Head SAC, Rockabill to Dalkey Island SAC, and Lambay Island SAC as a result of hydrological impacts.

7.2.5.2 Summary

209 Table 12 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC, and how these impacts relate to affecting the site's conservation objectives

Table 12 Potential Impacts/Effects on the Conservation Objectives of Howth Head SAC and Rockabill to Dalkey Island SAC, and Lambay Island SAC

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
Howth Head SAC			
Vegetated sea cliffs of the Atlantic and Baltic coasts			
To maintain the favourable conservation condition of Vegetated sea cliffs of the Atlantic and Baltic coasts in Howth Head SAC, which is defined as follows:			
Habitat length/ Kilometres/ Area stable, subject to natural processes, including erosion	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 (vegetation structure and composition) and area / distribution of intertidal / coastal habitats.	Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	No
Habitat distribution/ Occurrence/ No decline, subject to natural processes			
Physical structure: functionality and hydrological regime/ Occurrence of artificial barriers/ No alteration to natural function of geomorphological and hydrological processes, including groundwater quality, due to artificial structures			
Vegetation structure: zonation/ Occurrence/ Maintain range of sea cliff habitat zonations including transitional zones, subject to natural processes including erosion and succession			
Vegetation structure: vegetation height/ Centimetres/ Maintain structural variation within sward			
Vegetation composition: typical species and sub-communities/ Percentage cover at a representative number of monitoring stops/ Maintain range of sub-communities with typical species listed in the Irish Sea Cliff Survey (Barron <i>et al.</i> , 2011)			
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 (<i>Pteridium aquilinum</i>) on grassland and/or heath less than 10%. Cover of woody species on grassland and/or heath less than 20%			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
<p>European Dry Heaths To maintain the favourable conservation condition of European dry heaths in Howth Head SAC, which is defined as follows:</p>			
Habitat area/ Hectares/ Area stable or increasing, subject to natural processes	<p>No Terrestrial habitats above the high tide line are not at risk of effects from water pollution in Dublin Bay.</p>	<p>No</p>	<p>No</p>
Habitat distribution/ Occurrence/ No decline, subject to natural processes			
Ecosystem function: soil nutrients/ Soil pH and appropriate nutrient levels at a representative number of monitoring stops/ Maintain soil nutrient status within natural range			
Community diversity/ Abundance of variety of vegetation communities/ Maintain variety of vegetation communities, subject to natural processes			
Vegetation composition: lichens and bryophytes/ Number of species at a representative number of 2m x 2m monitoring stops/ Number of bryophyte or non-crustose lichen species present at each monitoring stop is at least three, excluding <i>Campylopus</i> and <i>Polytrichum</i> mosses			
Vegetation composition: number of positive indicator species/ Number of species at a representative number of 2m x 2m monitoring stops/ Number of positive indicator species present at each monitoring stop is at least two			
Vegetation composition: cover of positive indicator species/ Percentage cover at a representative number of 2m x 2m monitoring stops/ Cover of positive indicator species at least 50% for siliceous dry heath and 50- 75% for calcareous dry heath			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
Vegetation composition: dwarf shrub composition/ Percentage cover at a representative number of 2m x 2m monitoring stops/ Proportion of dwarf shrub cover composed collectively of bog-myrtle (<i>Myrica gale</i>), creeping willow (<i>Salix repens</i>) and western gorse (<i>Ulex gallii</i>) is less than 50%			
Vegetation composition: negative indicator species/ Percentage cover at a representative number of 2m x 2m monitoring stops/ Total cover of negative indicator species less than 1%			
Vegetation composition: non-native species/ Percentage cover at, and in local vicinity of, a representative number of 2m x 2m monitoring stops/ Cover of non-native species less than 1%			
Vegetation composition: native trees and shrubs/ Percentage cover in local vicinity of a representative number of monitoring stops/ Cover of scattered native trees and shrubs less than 20%			
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	Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	No
Habitat distribution/ Occurrence/ Distribution is stable or increasing, subject to natural processes			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
Community structure/ Biological composition/ Conserve the following community types in a natural condition: Intertidal reef community complex; and Subtidal reef community complex	water downstream in Dublin Bay. An accidental pollution event of a sufficient magnitude, either alone or cumulatively with other pollution sources, could potentially affect the quality (vegetation structure and composition) and area/distribution of intertidal/coastal habitats.		
Harbour porpoise <i>Phocoena phocoena</i> [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 alone or cumulatively with other pollution sources, could potentially affect the quality of the intertidal/marine habitats which support harbour porpoise and fish prey species.	Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	No
Disturbance/ Level of impact/ Human activities should occur at levels that do not adversely affect the harbour porpoise community at the site			
Lambay Island SAC			
Reefs [1170] 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	No	No

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
Habitat distribution/ Occurrence/ Distribution is stable or increasing, subject to natural processes	There is no potential for impacts to occur on any habitats associated with the Lambay Island SAC as it is located a significant distance from the Proposed Scheme, and on the far side of the Howth peninsula.		
Community structure/ Biological composition/ Conserve the following community types in a natural condition: Intertidal reef community complex; <i>Laminaria</i> -dominated community complex			
<p>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:</p>			
Habitat length Kilometres Area stable, subject to natural processes, including erosion	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 far side of the Howth peninsula.	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 zonation including transitional zones, subject to natural processes including erosion and succession			
Vegetation structure: vegetation height/ Centimetres/ Maintain structural variation within sward			
Vegetation composition: typical species and subcommunities/ Percentage cover at a representative sample of monitoring stops/ Maintain range of subcommunities with typical species listed in the Irish Sea Cliff Survey			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
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 (<i>Pteridium aquilinum</i>) on grassland and/or heath less than 10%/ Cover of woody species on grassland and/or heath less than 20%			
<p>Grey Seal <i>Halichoerus grypus</i> [1364] To maintain the favourable conservation condition of Grey Seal in Lambay Island SAC, which is defined as follows:</p>			
Access to suitable habitat / Number of artificial barriers / Species range within the site should not be restricted by artificial barriers to site use	<p>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.</p>	<p>Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.</p>	<p>No</p>
Breeding behaviour / Breeding sites / The breeding sites should be maintained in a natural condition			
Moulting behaviour / Moulting haul-out sites / The moulting 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			
<p>Harbour Seal <i>Phoca vitulina</i> [1365] To maintain the favourable conservation condition of Harbour Seal in Lambay Island SAC, which is defined as follows:</p>			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impact
<p>Access to suitable habitat / Number of artificial barriers Species range within the site should not be restricted by artificial barriers to site use</p>	<p>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.</p>	<p>Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.</p>	<p>No</p>

7.2.6 Mitigation Measures

210 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 SAC, 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

211 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

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

7.2.7 Residual Impacts

213 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 of the qualifying interests of Howth Head SAC, 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 Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC. 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.

7.2.8 Conclusion of Assessment for Howth Head SAC and Rockabill to Dalkey Island SAC and Lambay Island SAC.

214 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the of the qualifying interests / special conservation interests of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of Howth Head SAC, Rockabill to Dalkey Island SAC and Lambay Island SAC.

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

7.3.1 Ecological Baseline Description for Howth Head Coast SPA

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

7.3.2 Ecological Baseline Description for Dalkey Islands SPA

216 The Natura 2000 Standard Data Form (NPWS, 2020f) lists the site as an important site for both breeding and staging terns. This SPA is designated for breeding terns and there is a well-established colony of

common tern *Sterna hirundo* and smaller numbers of Arctic tern *Sterna paradisaea* and roseate tern *Sterna dougallii*. The site along with other parts of south Dublin Bay are used by the three tern species as a major post-breeding/pre-migration autumn roost area. The site also has breeding great black-backed gull *Larus marinus*, shelduck *Tadorna tadorna* and oystercatcher *Haematopus ostralegus*. The site is known to be frequented in winter by significant numbers of turnstone *Arenaria interpres* and purple sandpiper *Calidris maritima*. Threats to the site include urbanisation and human habitation, human intrusions and disturbances, and agriculture.

7.3.3 Ecological Baseline Description for Rockabill SPA

217 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 *Cephus grille* and a small colony of kittiwake *Rissa tridactyla*.

7.3.4 Qualifying Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA

218 The qualifying interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and the overall conservation objective, are listed in Table 13.

Table 13: Qualifying Interests and Conservation Objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA

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

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

219 In conjunction with considering the generic conservation objective for these SPAs “To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”, the site-specific conservation objectives document for Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA also informed this assessment.

220 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 qualifying interests of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA are presented in Section 7.3.5.2.

7.3.5 Examination and Analysis of Potential Direct and Indirect Impacts

221 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 Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, are:

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

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

222 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. 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 directly hydrologically connected to two surface water features, the River Tolka and the Royal Canal, both of which flow into Dublin Bay.

223 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 Howth Head Coast SPA and Dalkey Islands SPA and Rockabill SPA.

7.3.5.2 Summary

224 Table 14 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA, and how these impacts relate to affecting the site’s conservation objectives.

Table 14 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 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 See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	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 (<i>Sterna dougallii</i>) [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].			
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 along or cumulatively with other pollution sources, could potentially affect the quantity and quality of prey fish species and the	Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	No
Distribution: roosting areas / Number; location; area (hectares) / No significant decline			
Prey biomass available / Kilogrammes / No significant decline			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase	quality and suitability of roosting sites within the SPA.		
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 (<i>Sterna hirundo</i>) [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].			
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 nesting and roosting sites within the SPA.	Yes See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	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 (<i>Sterna paradisaea</i>) [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].			
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 See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	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 (<i>Calidris maritima</i>) [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	Yes	Yes	No

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
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	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.	See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	
Roseate Tern (<i>Sterna dougallii</i>) [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 See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	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 (<i>Sterna hirundo</i>) [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	Yes	No

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Productivity rate: fledged young per breeding pair / Mean number / 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 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.	See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	
Distribution: breeding colonies / Number; location; area (Hectares) / No significant decline			
Prey biomass available / Kilogrammes / No significant decline			
Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase			
Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population			
Arctic Tern (<i>Sterna paradisaea</i>) [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	Yes	No
Productivity rate: fledged young per breeding pair/ Mean number/ 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 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.	See the relevant mitigation measures described in Section 7.1.4.1 to protect water quality in the receiving environment.	
Distribution: breeding colonies/ Number; location; area (Hectares)/ No significant decline			
Prey biomass available/ Kilogrammes/ No significant decline			
Barriers to connectivity / Number; location; shape; area (hectares) / No significant increase			
Disturbance at breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding common tern population			

7.3.6 Mitigation Measures

225 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

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

Measures to Protect Surface Water Quality during Operation

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

7.3.7 Residual Impacts

228 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 interests / special conservation interests of Howth Head Coast SPA and Dalkey Islands SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme on Howth Head Coast SPA, Dalkey Islands SPA and Rockabill SPA. 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.

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

229 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Howth Head Coast SPA Dalkey Islands SPA and Rockabill SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests/special conservation interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of Howth Head Coast SPA , Dalkey Islands SPA and Rockabill SPA.

7.4 North Bull Island SPA [004006]

7.4.1 Ecological Baseline Description for North Bull Island SPA

The Natura 2000 Standard Data Form (NPWS,2020h) lists the SPA as one of the top ten sites in the country for wintering waterfowl. It provides important feeding and roosting habitat for bird species listed as 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 Qualifying Interests and Conservation Objectives of North Bull Island SPA

230 The qualifying interests of North Bull Island SPA, and the overall conservation objective, are listed below in Table 15.

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

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

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 North Bull Island 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 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 qualifying interests of North Bull Island SPA are presented in Section 7.4.3.4.

7.4.3 Examination and Analysis of Potential Direct and Indirect Impacts

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 qualifying interests of North Bull Island SPA, are:

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

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

234 The release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water features during 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay. 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.

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

235 There are five areas of the non-native invasive plant species, Himalayan balsam, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, 2011 present in close proximity to the Proposed Scheme. During construction and / or routine maintenance / management work, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and/or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Tolka, Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay. 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 invasive species spread.

7.4.3.3 Disturbance and displacement impacts

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 for general construction activities and 800m at Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with construction activities would attenuate to close to background levels at that distance and beyond. Table 16 provides the indicative construction noise calculation associated with different construction activities of the Proposed Scheme at varying distances.

Table 16: Indicative Construction Noise Calculations at Varying Distances

Activity (dB)	Predicted CNL at Stated Distance from Edge of Works (dB L _{Aeq,12hr} or L _{Aeq,4hr})								
	10m	15m	20m	30m	50m	75m	100m	150m	250m
General Road works	79	76	73	69	65	61	59	55	51
Road Widening and Utility Diversion	84	81	78	74	70	66	64	60	56
Bus Gate Construction	80	77	74	70	66	62	60	56	52

Activity	Predicted CNL at Stated Distance from Edge of Works (dB LAeq,12hr or LAeq,4hr)									
	(dB)	10m	15m	20m	30m	50m	75m	100m	150m	250m
Quiet street treatment		80	77	74	70	66	62	60	56	52
Urban realm & landscaping		79	76	73	69	65	61	59	55	51
Site compounds		78	75	72	68	64	60	58	54	50
Boundary wall construction		80	77	74	70	66	62	60	56	49
Bored / Auger piling works		80	77	74	70	66	62	60	56	52
Retaining walls		81	78	75	71	67	63	61	57	53

236 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus, in respect of known inland feeding sites, Construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all the identified feeding sites are separated by buildings and or vegetation to varying degrees from the existing road corridor and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors, it is concluded that the birds will not be subject to any substantial and long term change and would be considered habituated to existing activities in the urban / suburban transport corridor.

237 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.

238 The North Bull Island SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, golden plover oystercatcher, curlew, black-headed gull and black-tailed godwit. There are no areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and/or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance ZoI for general construction activities. There are no known inland wintering bird feeding sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

239 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, oystercatcher and black-headed gull), It is possible that SCI bird species associated with the North Bull Island SPA currently utilise these and other suitable lands in the wider area. However, there is no potential for impacts to occur on any SCI bird species population of North Bull Island SPA, in light of their conservation objectives, as a consequence of

the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB $L_{Aeq,T}$. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 L_{ASmax} however will average 70 L_{Aeq} during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and / or roosting habitat for these SCI species.
- 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 St. Anne's Park, Clontarf Golf Club and Royal Dublin and St. Anne's golf courses on the Bull Island.

7.4.3.4 Summary

240 Table 17 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation interests of North Bull Island SPA and how these impacts relate to affecting the site's conservation objectives.

Table 17 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 (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Teal (<i>Anas crecca</i>) [A052], Pintail (<i>Anas acuta</i>) [A054], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Curlew (<i>Numenius arquata</i>) [A160], Redshank (<i>Tringa totanus</i>) [A162], Turnstone (<i>Arenaria interpres</i>) [A169], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [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	Yes	Yes	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	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 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 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.	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected. The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
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	Yes	Yes	No
	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	The mitigation measures described in Section 7.1.4.1 will ensure that surface water	

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
<p>natural patterns of variation</p>	<p>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.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.</p>	<p>quality in the receiving environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	

7.4.4 Mitigation Measures

241 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

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

Measures to Protect Surface Water Quality during Operation

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

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

The mitigation measures presented in Section 7.1.4.2 will prevent the spread of non-native invasive species to downstream European sites. will

7.4.5 Residual Impacts

244 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 interests/special conservation interests of North Bull Island SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme on North Bull Island SPA. 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.

7.4.6 Conclusion of Assessment for North Bull Island SPA

245 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of North Bull Island SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / special conservation interests, it has been concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Bull Island SPA.

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

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

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

7.5.2 Qualifying Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA

247 The qualifying interests of South Dublin Bay and River Tolka Estuary SPA, and the overall conservation objective, are listed in Table 18.

Table 18 Qualifying Interests and Conservation Objectives of South Dublin Bay and River Tolka Estuary SPA

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

248 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.

249 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 qualifying interests of South Dublin Bay and River Tolka Estuary SPA are presented in Section 7.5.3.4.

7.5.3 Examination and Analysis of Potential Direct and Indirect Impacts

250 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 South Dublin Bay and River Tolka Estuary SPA, are:

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

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

251 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 directly hydrologically connected to the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

252 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 South Dublin Bay and River Tolka Estuary SPA.

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

253 There are five areas of the non-native invasive plant species, Himalayan balsam, a species listed on the Third Schedule of the (Birds and Natural Habitats) Regulations, 2011 present in close proximity to the Proposed Scheme. During construction and / or routine maintenance/management work, these species could potentially spread or be introduced to terrestrial habitats located within downstream European sites via surface water features. The introduction and / or spread of these invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. These species may outcompete other native species present, negatively impacting the species composition, diversity and abundance and the physical structural integrity of the habitat. This in turn could undermine the conservation objectives of these European sites. The Proposed Scheme is hydrologically connected to the River Tolka, Royal Canal, Liffey Estuary Upper, Liffey Estuary Lower and Ringsend Wastewater Treatment Plant, all of which flow into Dublin Bay. 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 invasive species spread.

7.5.3.3 Disturbance and displacement impacts

254 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 for general construction activities and 800m at Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

255 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus in respect of known inland feeding sites, construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all feeding sites are

separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.

256 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

257 The South Dublin Bay and River Tolka Estuary SPA is designated for wintering SCI species that are known to forage and/or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher and black-headed gull. There are no areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and/or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance ZoI. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

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

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB LAeq,T. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 LASmax however will average 70 LAeq during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and/or roosting habitat for these SCI species.
- 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 St. Anne's Park, Fairview Park, Blackrock Park, Blackrock College and Sean Moore Park.

7.5.3.4 Summary

259 Table 19 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of South Dublin Bay and River Tolka Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 19 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
<p>South Dublin Bay and River Tolka Estuary SPA</p>			
<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Knot (<i>Calidris canutus</i>) [A143], Sanderling (<i>Calidris alba</i>) [A144], Dunlin (<i>Calidris alpina alpina</i>) [A149], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]</p> <p>Note: Grey Plover (<i>Pluvialis squatarola</i>) [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</p> <p>To maintain the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:</p>			
<p>Population trend / Percentage change / Long term population trend stable or increasing</p>	<p>Yes</p> <p>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.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	<p>No</p>
<p>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</p>			

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Roseate Tern (<i>Sterna dougallii</i>) [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	Yes	No
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 alone or cumulatively with other pollution 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 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.	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected. The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.	
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 (<i>Sterna hirundo</i>) [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	Yes	No
Productivity rate: fledged young per breeding pair / Mean number / 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 alone or cumulatively with other pollution sources, could potentially affect	The mitigation measures described in Section 7.1.4.1 will ensure that surface water	
Passage population: individuals / Number / No significant decline			

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

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
	The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.		
<p>Wetlands [A999] To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows:</p>			
<p>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</p>	<p>Yes</p> <p>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.</p> <p>The introduction and / or spread of invasive species to downstream European sites could potentially result in the degradation of existing habitats present, in particular coastal habitats not permanently or regularly inundated by seawater. This in turn could affect the use of habitat areas by birds and have long-term effects on the SPA populations.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p> <p>The mitigation measures described in Section 7.1.4.2 will prevent the introduction and / or spread of invasive species.</p>	<p>No</p>

7.5.4 Mitigation Measures

260 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

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

Measures to Protect Surface Water Quality during Operation

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

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

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

7.5.5 Residual Impacts

264 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme will not have an adverse effect on the conservation objectives, or the favourable conservation condition, of the qualifying interests / special conservation interests of South Dublin Bay and River Tolka Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme on South Dublin Bay and River Tolka Estuary SPA. 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.

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

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

7.6 Malahide Estuary SPA [004025]

7.6.1 Ecological Baseline Description for Malahide Estuary SPA

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

7.6.2 *Qualifying Interests and Conservation Objectives of Malahide Estuary SPA*

267 The qualifying interests of Malahide Estuary SPA, and the overall conservation objective, are listed in Table 20.

Table 20 Qualifying Interests and Conservation Objectives of Malahide Estuary SPA

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

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 Malahide 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 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 qualifying interests of Malahide Estuary SPA are presented in Section 7.6.3.3.

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

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 qualifying interests of Malahide Estuary SPA, are:

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

7.6.3.1 Habitat degradation / effects on QI / 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay. 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 Estuary SPA.

7.6.3.2 Disturbance and displacement impacts

272 A temporary and / or permanent increase in noise, vibration and / or human activity levels during the construction and / or operation of the Proposed Scheme could result in the disturbance to and / or displacement of SCI bird species present within footprint and/or the vicinity of the Proposed Scheme. Such disturbance effects would not be expected to extend beyond a distance of approximately 300m for general construction activities, and up to c.800m the construction of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07), as noise levels associated with construction activities would attenuate to close to background levels at that distance and beyond.

273 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus in respect of known inland feeding sites, construction Phase noise disturbance may in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.

274 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.

275 Malahide Estuary SPA is designated for wintering SCI species that are known to forage and/or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher, golden plover and black-tailed godwit. There are no areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and/or roosting habitat available for these SCI bird species within the disturbance Zol of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance Zol. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;

- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

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

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB LAeq,T. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 LASmax however will average 70 LAeq during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and/or roosting habitat for these SCI species.
- The availability of large areas of suitable foraging and/or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Malahide Estuary SPA. These include other similar public amenity grassland parks and sports pitches such as areas of parkland, sports pitches, agricultural land and golf clubs in the vicinity of Malahide Estuary SPA.

7.6.3.3 Summary

277 Table 21 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Malahide Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 21 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 Impact
Malahide Estuary SPA			
<p>Great Crested Grebe (<i>Podiceps cristatus</i>) [A005], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Pintail (<i>Anas acuta</i>) [A054], Goldeneye (<i>Bucephala clangula</i>) [A067], Red-breasted Merganser (<i>Mergus serrator</i>) [A069], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157], Redshank (<i>Tringa totanus</i>) [A162]</p>			
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	<p>Yes</p> <p>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 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.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p>	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:			
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 potential for impacts to occur on any habitats associated with the Malahide Estuary SPA as the Proposed Scheme is not hydrologically connected to the Malahide Estuary.	No	No

7.6.4 Mitigation Measures

278 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

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

Measures to Protect Surface Water Quality during Operation

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

7.6.5 Residual Impacts

281 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 interests / special conservation interests of Malahide Estuary SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme on Malahide Estuary SPA that could adversely affect the integrity of Malahide Estuary SPA. 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.

7.6.6 Conclusion of Assessment for Malahide Estuary SPA

282 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Malahide Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests/special conservation interests, it has been concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of Malahide Estuary SPA.

7.7 Baldoye Bay SPA [004016]

7.7.1 Ecological Baseline Description for Baldoye Bay SPA

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

7.7.2 Qualifying Interests and Conservation Objectives of Baldoye Bay SPA

284 The qualifying interests of Baldoye Bay SPA, and the overall conservation objective, are listed in Table 22.

Table 22 Qualifying Interests and Conservation Objectives of Baldoye Bay SPA

Qualifying Interest(s)	Conservation Objective(s)
Baldoye Bay SPA [004016] A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i> A048 Shelduck <i>Tadorna tadorna</i> A137 Ringed Plover <i>Charadrius hiaticula</i> A140 Golden Plover <i>Pluvialis apricaria</i> A141 Grey Plover <i>Pluvialis squatarola</i> A157 Bar-tailed Godwit <i>Limosa lapponica</i> A999 Wetland and Waterbirds <i>S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoye Bay Special Protection Area 004016)) Regulations 2010.</i> NPWS (2013) <i>Conservation Objectives: Baldoye Bay SPA 004016. Version 1.</i> 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

285 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 Baldoye Bay SPA also informed this assessment.

286 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 qualifying interests of Baldoye Bay SPA are presented in Section 7.7.3.3.

7.7.3 Examination and Analysis of Potential Direct and Indirect Impacts

287 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 Baldoye Bay SPA, are:

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

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

288 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

289 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 Bay SPA.

7.7.3.2 Disturbance and displacement impacts

- 290 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 for general construction activities, and approximately 800m for the construction of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.
- 291 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus, in respect of known inland feeding sites, construction Phase noise disturbance may in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.
- 292 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.
- 293 Baldoyle Bay SPA is designated for a wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches e.g. light-bellied brent goose and golden plover. There are no areas of suitable foraging, and/or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance ZoI of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance ZoI. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).
- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
 - Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
 - Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.
- 294 As records of light-bellied brent goose have been returned from the desk study in the vicinity of the Proposed Scheme, it is considered to be possible that light-bellied brent goose associated with the Baldoyle Bay SPA currently utilise these and other suitable lands in the wider area. However, no significant effects will occur on any SCI bird species population of Baldoyle Bay, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding/roosting sites due to increased levels of disturbance due to the following reasons:
- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed

Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB LAeq,T. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 LASmax however will average 70 LAeq during weekday working hours.

- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and / or roosting habitat for these SCI species.
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Baldoyle Bay SPA. These include other similar public amenity grassland parks and sports pitches such as the Red Arches, Seagrang Park and the Baldoyle Bird Quiet Zone.

7.7.3.3 Summary

295 Table 23 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Baldoyle Bay SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 23 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			
<p>Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</p> <p>To restore the favourable conservation condition of the special conservation interests of the SPA, which is defined as follows:</p>			
<p>Population trend / Percentage change / Long term population trend stable or increasing</p>	<p>Yes</p> <p>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.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p>	<p>No</p>
<p>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</p>			
Wetlands [A999]			
<p>To maintain the favourable conservation condition of wetland habitats within the SPA, which is defined as follows:</p>			
<p>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</p>	<p>No</p> <p>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.</p>	<p>No</p>	<p>No</p>

7.7.4 Mitigation Measures

296 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

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

Measures to Protect Surface Water Quality during Operation

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

7.7.5 Residual Impacts

299 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme will not have an adverse effect on the conservation objectives, or the favourable conservation condition, of the qualifying interests / special conservation interests of Baldoyle Bay SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme that could adversely affect the integrity of Baldoyle Bay SPA. As is confirmed by the 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.

7.7.6 Conclusion of Assessment for Baldoyle Bay SPA

300 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Baldoyle Bay SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / special conservation interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Dublin Bay and Baldoyle Bay SPA.

7.8 Rogerstown Estuary SPA [004015]

7.8.1 Ecological Baseline Description for Rogerstown Estuary SPA

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

7.8.2 Qualifying Interests and Conservation Objectives of Rogerstown Estuary SPA

302 The qualifying interests of Rogerstown Estuary SPA, and the overall conservation objective, are listed in Table 24.

Table 24 Qualifying Interests and Conservation Objectives of Rogerstown Estuary SPA

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

303 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.

304 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 qualifying interests of Rogerstown Estuary SPA are presented in Section 7.8.3.3.

7.8.3 Examination and Analysis of Potential Direct and Indirect Impacts

305 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 Rogerstown Estuary SPA, are:

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

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

306 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

307 Therefore, (albeit unlikely) this reduction in water quality (either alone or in combination with other pressures on water quality) could result in the degradation of sensitive habitats present within Dublin Bay. As a worst-case scenario there is potential to affect mobile SCI bird species that commute, forage and loaf in Dublin Bay. It could also negatively affect the quantity and quality of prey available to SCI bird species. These potential impacts could occur to such a degree that they result in significant effects which could have implications for the conservation objectives of Rogerstown Estuary SPA.

7.8.3.2 Disturbance and displacement impacts

308 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 for general construction activities and approximately 800m for the construction of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

309 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus, in respect of known inland feeding sites, Construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.

310 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.

311 Rogerstown Estuary SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, oystercatcher and black-tailed godwit. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance Zol of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance Zol. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

312 As records of light-bellied brent goose and oystercatcher have been returned from the desk study in the vicinity of the Proposed Scheme, it is considered to be possible that SCI species associated with the Rogerstown Estuary SPA currently utilise these and other suitable lands in the wider area. However, no

significant effects will occur on any SCI bird species population of Rogerstown Estuary, in light of their conservation objectives, as a consequence of the disturbance and/or displacement from inland feeding/roosting sites due to increased levels of disturbance due to the following reasons:

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB LAeq,T. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 LASmax however will average 70 LAeq during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be constructed on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and / or roosting habitat for these SCI species.
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Rogerstown Estuary SPA. These include other similar parkland and pitches as well as golf courses and agricultural land in the vicinity of Rogerstown Estuary.

7.8.3.3 Summary

313 Table 25 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Rogerstown Estuary SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 25 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			
<p>Greylag Goose (<i>Anser anser</i>) [A043], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Shelduck (<i>Tadorna tadorna</i>) [A048], Shoveler (<i>Anas clypeata</i>) [A056], Oystercatcher (<i>Haematopus ostralegus</i>) [A130], Ringed Plover (<i>Charadrius hiaticula</i>) [A137], Grey Plover (<i>Pluvialis squatarola</i>) [A141], Knot (<i>Calidris canutus</i>) [A143], Dunlin (<i>Calidris alpina alpina</i>) [A149], Black-tailed Godwit (<i>Limosa limosa</i>) [A156] and Redshank (<i>Tringa tetanus</i>) [A162]</p>			
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	<p>Yes</p> <p>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.</p>	<p>Yes</p> <p>The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.</p>	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 potential 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

314 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

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

Measures to Protect Surface Water Quality during Operation

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

7.8.5 Residual Impacts

317 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 interests / 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. 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.

7.8.6 Conclusion of Assessment for Rogerstown Estuary SPA

318 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Rogerstown Estuary SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / special conservation interests, it has been concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Dublin Bay and Rogerstown Estuary SPA.

7.9 Skerries Islands SPA [004122]

7.9.1 Ecological Baseline Description for Skerries Islands SPA

319 The Natura Standard Data Form (NPWS, 2020m) 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 Qualifying Interests and Conservation Objectives of Skerries Islands SPA

320 The qualifying interests of Skerries Islands SPA, and the overall conservation objective, are listed in Table 26.

Table 26 Qualifying Interests and Conservation Objectives of Skerries Islands SPA

Qualifying Interest(s)	Conservation Objective(s)
<p>Skerries Islands SPA [004122]</p> <p>A017 Cormorant <i>Phalacrocorax carbo</i></p> <p>A018 Shag <i>Phalacrocorax aristotelis</i></p> <p>A046 Brent Goose <i>Branta bernicla hrota</i></p> <p>A148 Purple Sandpiper <i>Calidris maritima</i></p> <p>A169 Turnstone <i>Arenaria interpres</i></p> <p>A184 Herring Gull <i>Larus argentatus</i></p> <p><i>S.I. No. 245/2010 – European Communities (Conservation of Wild Birds (Skerries Islands Special Protection Area 004122)) Regulations 2010.</i></p> <p>NPWS (2022) <i>Conservation objectives for Skerries Islands SPA [004122]. Generic Version 9.0.</i> Department of Housing, Local Government and Heritage.</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA</p>

321 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 have been compiled from other relevant European sites (See Table 27)to inform this assessment.

322 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 would constitute an adverse effect on the integrity of a European site. The specific attributes and targets used to define the conservation objectives of the qualifying interests of Skerries Islands SPA are presented in Section 7.9.33.

7.9.3 Examination and Analysis of Potential Direct and Indirect Impacts

323 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 Skerries Islands SPA, are:

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

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

324 The release of contaminated surface water run-off 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

325 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 SCI bird species. that utilise 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 Skerries Islands SPA.

7.9.3.2 Disturbance and displacement impacts

- 326 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 for general construction activities, and approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02)), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with construction activities would attenuate to close to background levels at that distance and beyond.
- 327 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus, in respect of known inland feeding sites, Construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.
- 328 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.
- 329 Skerries Islands SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose and herring gull. There are no areas of suitable foraging, and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance Zol of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance Zol. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02)), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).
- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
 - Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
 - Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.
- 330 As records of SCI bird species associated with Skerries Islands SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e. light-bellied brent goose and herring gull), it is considered to be possible that SCI species associated with Skerries Islands SPA currently utilise these and other suitable lands in the wider area. However, there is no potential for impacts to occur on any SCI bird species population of Skerries Islands SPA, in light of their conservation objectives, as a consequence of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:
- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 $_{dB LAeq,T}$. Feeding sites are located within close proximity to busy roads therefore are likely to be

habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 L_{ASmax} however will average 70 L_{Aeq} during weekday working hours.

- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be constructed on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and/or roosting habitat for these SCI species.
- 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 terrestrial areas in closer proximity to Skerries Islands SPA including similar parkland, golf courses and agricultural land.

7.9.3.3 Summary

331 Table 27 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Skerries Islands SPA.

Table 27 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 (<i>Phalacrocorax carbo</i>) [A017], Shag <i>Phalacrocorax aristotelis</i> [A018], Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046], Purple Sandpiper (<i>Calidris maritima</i>) [A148], Turnstone (<i>Arenaria interpres</i>) [A169] and Herring Gull (<i>Larus argentatus</i>) [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 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.	Yes The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	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

332 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

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

Measures to Protect Surface Water Quality during Operation

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

7.9.5 Residual Impacts

335 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 interests / 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. 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.

7.9.6 Conclusion of Assessment for Skerries Islands SPA

336 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Skerries Islands SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / special conservation interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Dublin Bay and 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

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

338 According to the Natura 2000 Standard Data Form (NPWS, 2020o), 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 *Qualifying Interests and Conservation Objectives of Ireland’s Eye SPA and Lambay Island SPA*

339 The qualifying interests of Ireland’s Eye SPA and Lambay Island SPA, and the overall conservation objectives, are listed in Table 28.

Table 28 Qualifying Interests and Conservation Objectives of Ireland’s Eye SPA and Lambay Island SPA

Qualifying Interest(s)	Conservation Objective(s)
<p>Ireland’s Eye SPA [004117] A017 Cormorant <i>Phalacrocorax carbo</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i></p> <p><i>S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland’s Eye Special Protection Area 004117)) Regulations 2010.</i> NPWS (2022) <i>Conservation objectives for Ireland’s Eye SPA [004117].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA</p>
<p>Lambay Island SPA [004069] A009 Fulmar <i>Fulmarus glacialis</i> A017 Cormorant <i>Phalacrocorax carbo</i> A018 Shag <i>Phalacrocorax aristotelis</i> A043 Greylag Goose <i>Anser anser</i> A183 Lesser Black-backed Gull <i>Larus fuscus</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i> A204 Puffin <i>Fratercula arctica</i></p> <p><i>S.I. No. 242/2010 - European Communities (Conservation of Wild Birds (Lambay Island Special Protection Area 004069)) Regulations 2010.</i> NPWS (2022) <i>Conservation objectives for Lambay Island SPA [004069].</i> Generic Version 9.0. Department of Housing, Local Government and Heritage.</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA</p>

340 In conjunction with considering the generic conservation objective for these SPAs “To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”, the site-specific conservation objectives documents for Ireland’s Eye SPA and Lambay Island SPA also informed this assessment.

341 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 qualifying interests of Ireland’s Eye SPA and Lambay Island SPA are presented in Section 7.10.4.3.

7.10.4 Examination and Analysis of Potential Direct and Indirect Impacts

342 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 Ireland's Eye SPA and Lambay Island SPA, are:

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

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

343 The release of contaminated surface water run-off 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

344 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 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 Irelands Eye SPA and Lambay Island SPA.

7.10.4.2 Disturbance and displacement impacts

345 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 for general construction activities and approximately 800m for the construction of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with construction activities would attenuate to close to background levels at that distance and beyond.

346 Table 16 in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus in respect of known inland feeding sites, Construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.

347 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.

348 Ireland's Eye SPA and Lambay Island SPA are designated for breeding SCI gull species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include black-headed gull, herring gull and lesser black-backed gull. There are no areas of suitable foraging,

and / or roosting habitat for these species within the footprint of the Proposed Scheme however, there are several areas of suitable foraging and / or roosting habitat available for these SCI bird species within the disturbance Zol of the Proposed Scheme. There are three known inland wintering bird feeding sites within approximately 300m of the Proposed Scheme i.e. the disturbance Zol. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

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

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB $L_{Aeq,T}$. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 L_{ASmax} however will average 70 L_{Aeq} during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and/or roosting habitat for these SCI species.
- The availability of large areas of suitable foraging and/or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to Ireland's Eye SPA and Lambay Island SPA. These include marine habitats surrounding the islands, golf clubs, agricultural lands and public parks/ sports pitches in the North County Dublin area.

7.10.4.3 Summary

350 Table 29 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of Ireland's Eye SPA and Lambay Island SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 29 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 (<i>Phalacrocorax carbo</i>) [A017], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalga</i>) [A199], Razorbill (<i>Alca torda</i>) [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	Yes	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	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 mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	

Conservation Objectives Attribute / Measure / Target	Potential Impacts Requiring Mitigation?	Are mitigation measures required?	Residual Impacts
Lambay Island SAC			
Fulmar (<i>Fulmaris glacialis</i>) [A009], Cormorant (<i>Phalacrocorax carbo</i>) [A017], Shag (<i>Phalacrocorax aristotelis</i>) [A018], Greylag Goose (<i>Anser anser</i>) [A043], Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183], Herring Gull (<i>Larus argentatus</i>) [A184], Kittiwake (<i>Rissa tridactyla</i>) [A188], Guillemot (<i>Uria aalga</i>) [A199], Razorbill (<i>Alca torda</i>) [A200], Puffin (<i>Fratercula arctica</i>) [A204]			
Population trend / Percentage change / Long term population trend stable or increasing	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.	Yes The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	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

351 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 or 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

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

Measures to Protect Surface Water Quality during Operation

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

7.10.6 Residual Impacts

354 With the effective implementation of appropriate mitigation measures identified in this NIS, the Proposed Scheme will not have any adverse effects on the conservation objectives, or the favourable conservation condition, of the qualifying interests / 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. 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.

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

355 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of Irelands Eye SPA or Lambay Island SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / special conservation interests, it is concluded that the Proposed Scheme will not adversely affect (either directly or indirectly) the integrity of North Dublin Bay and Irelands Eye SPA or Lambay Island SPA.

7.11 The Murrough SPA [004186]

7.11.1 Ecological Baseline Description for The Murrough SPA

356 According to the Natura 2000 Standard Data Form (NPWS, 2020p), this SPA comprises a coastal wetland complex stretching for 13km from Kilcoole train station southwards towards Wicklow town. The site extends between the 200metre low water mark inland up to 1km in places. In terms of habitat diversity it includes the coastal water, a shingle shore with some sand and cobble. The SPA is bisected by the Dublin Rosslare railway line which runs along the upper part of the shingle beach. Much of the low-lying land behind the railway is manged for agriculture including reclaimed wetland, although a number of wet and brackish marshes remain including Broad Lough at its southern end and the manged wetland complex associated with Kilcoole reserve. This extensive coastal wetland complex is considered of 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 *Qualifying Interests and Conservation Objectives for The Murrough SPA*

357 The special conservation interests of The Murrough SPA and the overall conservation objectives are listed in Table 30.

Table 30 Qualifying Interests and Conservation Objectives of The Murrough SPA

Special Conservation Interests	Conservation Objective(s)
<p>The Murrough SPA [004186] A001 Red-throated Diver <i>Gavia stellata</i> A043 Greylag Goose <i>Anser anser</i> A046 Light Bellied Brent Goose <i>Branta bernicla hrota</i> A050 Wigeon <i>Anas penelope</i> A052 Teal <i>Anas crecca</i> A179 Black-headed Gull <i>Chroicocephalus ridibundus</i> A162 Herring Gull <i>Larus argentatus</i> A195 Little Tern <i>Sterna albifrons</i> A999 Wetlands</p> <p><i>S.I. No. 298/2011 - European Communities (Conservation of Wild Birds (The Murrough Special Protection Area 004186)) Regulations 2011.</i></p> <p>NPWS (2022) <i>Conservation Objectives for the Murrough SPA [004186]. Generic Version 9.0.</i> Department of Housing, Local Government and Heritage.</p>	<p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.</p> <p>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.</p>

358 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 31**) also informed this assessment.

359 The site-specific conservation objectives document sets out the attributes, measures and targets that define the favourable conservation condition of the Special Conservation Interest 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 7.11.3.3.

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

360 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 QI / SCI species as a result of hydrological impacts
- Disturbance and displacement impacts

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

361 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 the River Tolka, the Royal Canal, and the Liffey Estuary Upper, all of which flow into Dublin Bay.

362 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 Disturbance and displacement impacts

363 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 for general construction activities, and approximately 800m for the construction of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)), as noise levels associated with general construction activities would attenuate to close to background levels at that distance and beyond.

364 **Table 16** in Section 7.4.3.3 of this NIS provides the predicted construction noise limits associated with different construction activities of the Proposed Scheme. 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. This is supported by the findings of Wright *et al.* (2010) which found that noise levels above 60dB resulted in behavioural responses, with birds abandoning the site in response to noise levels above 70dB. Thus in respect of known inland feeding sites, Construction Phase noise disturbance may be in or above the levels that could provoke a response from birds. However, given that all feeding sites are separated by buildings and or vegetation to varying degrees and the fact that the construction disturbance would also be temporary and discrete operating along existing transport corridors.

365 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.

366 The Murrough SPA is designated for wintering SCI species that are known to forage and / or roost at inland sites across Dublin, such as amenity grassland playing pitches. These species include light-bellied brent goose, black-headed gull and herring gull. There are areas of suitable foraging, and / or roosting habitat for these species within the footprint of and adjacent to the Proposed Scheme (i.e. within the disturbance Zol), including the following sites, which have been returned from the desk study. There are no known inland wintering bird sites within approximately 800m of Structures 1 (culvert extension at the Tolka Bridge (BR01)) and 2 (Road widening of the N3 with an extension of the existing Mill Road Bridge (BR02), and the construction of pedestrian ramps accessing the N3 from Mill Road (RW07)).

- Belvedere Sports Ground Cabra (Importance Unknown) approximately 25m from the Proposed Scheme;
- Cabra / Pope John Paul II Park (High Importance) approximately 100m from the Proposed Scheme; and,
- Ashtown Playing Pitches (Major Importance) approximately 132m from the Proposed Scheme.

367 As records of SCI bird species associated with The Murrough SPA have been returned from the desk study in the vicinity of the Proposed Scheme (i.e. light-bellied brent goose, black-headed gull and herring gull,), it is considered to be possible that SCI species associated with The Murrough SPA currently utilise these and other suitable lands in the wider area. However, there is no potential for impacts to occur on any SCI bird species population of The Murrough SPA, in light of their conservation objectives, as a consequence

of the disturbance and / or displacement from inland feeding / roosting sites due to increased levels of disturbance due to the following reasons:

- Existing levels of disturbance within the surrounding areas of known inland wintering bird feeding sites. Noise and vibration monitoring has been conducted at 18 locations across the Proposed Scheme. Average daytime noise levels within the baseline environment ranged between 57 dB and 71 dB $L_{Aeq,T}$. Feeding sites are located within close proximity to busy roads therefore are likely to be habituated to some extent to disturbance. Maximum permissible construction noise is expected to reach 80 L_{ASmax} however will average 70 L_{Aeq} during weekday working hours.
- Existing development barriers between known inland wintering bird feeding and the Proposed Scheme. Belvedere Sports Ground is separated from the Proposed Scheme by the existing Belvedere club house, Cabra / Pope John Paul II Park and Ashtown Playing Pitches are separated from the Proposed Scheme by residential development and broadleaf woodland which are likely to provide a sound barrier and reduce effects of noise and vibration on SCI species using inland feeding sites.
- Impacts associated with increased levels of disturbance will likely result in the temporary displacement of these SCI species to other suitable available lands in the locality, for a maximum of 24 months during construction works. However, the Proposed Scheme is to be construction on a phased basis therefore reducing the disturbance timescales affecting each area. Following the completion of construction, disturbance levels will likely return to baseline conditions and as a result these lands will become available again as foraging and/or roosting habitat for these SCI species.
- The availability of large areas of suitable foraging and / or roosting habitat for these SCI bird species in the wider locality of the Proposed Scheme, including those in closer proximity to The Murrough SPA. These include other similar public amenity grassland parks and sports pitches across Co. Dublin as well as extensive areas of agricultural land and golf courses in Co. Wicklow.

7.11.3.3 Summary

368 Table 31 presents a summary of the potential impacts and effects of the Proposed Scheme on the qualifying interests and conservation objectives of The Murrough SPA, and how these impacts relate to affecting the site's conservation objectives.

Table 31 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]			
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 red-throated diver in The Raven SPA [004019] (NPWS, 2012a)			
Population trend / % change / Long term population trend stable or increasing	Yes	Yes	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	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 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 mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	
Greylag Goose [A043]			
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 Greylag Goose in Rogerstown Estuary SPA [004015] (NPWS, 2013)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	

	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.		
Light-Bellied Brent Goose [A046]			
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 Light-bellied Brent Goose in South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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 mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	
Wigeon [A050]			
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 Wigeon in Wexford Harbour and Slobs SPA [004076] (NPWS, 2012b)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	

	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.		
Teal [A052]			
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 Teal in North Bull Island SPA [004006] (NPWS, 2015)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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 mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	
Black-Headed Gull [179]			
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 Black-headed Gull in South Dublin Bay and River Tolka Estuary SPA [004024] (NPWS, 2015)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	

	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.		
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 Herring Gull in River Nanny Estuary and Shore SPA [004158] (NPWS, 2012c)			
Population trend / Percentage change / Long term population trend stable or increasing	Yes	Yes	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	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 mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	
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, 2013b)			
Breeding population abundance: apparently occupied nests (AONs) / Number / No significant decline	Yes	Yes	No
Productivity rate: fledged young per breeding pair / Mean number / 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 alone or cumulatively with other pollution sources, could potentially affect the quality the of	The mitigation measures described in Section 7.1.4.1 will ensure that surface water quality in the receiving environment is protected.	
Distribution: breeding colonies / Number; location; area (ha) / No significant decline			
Prey biomass available / Kg's / No significant decline			

<p>Barriers to connectivity / Number; location; shape; area (ha) / No significant decline</p>	<p>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.</p>		
<p>Disturbance at the breeding site / Level of impact / Human activities should occur at levels that do not adversely affect the breeding little tern population</p>			

7.11.4 Mitigation Measures

369 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

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

Measures to Protect Surface Water Quality during Operation

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

7.11.5 Residual Impacts

372 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 interests / special conservation interests of The Murrough SPA, and there are therefore, no residual direct or indirect impacts associated with the Proposed Scheme on The Murrough SPA. 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.

7.11.6 Conclusion of Assessment for The Murrough SPA

373 Following an examination, analysis and evaluation in light of best scientific knowledge, of all relevant information in respect of the qualifying interests / special conservation interests of The Murrough SPA, the potential impacts and mitigation measures, and whether or not the predicted impacts would affect the conservation objectives that support the conservation condition of the qualifying interests / 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

- 374 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 32, identifying the specific mitigation measures required for each relevant European site.
- 375 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 32: Matrix of Mitigation Measures and Residual Impacts

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

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

European site	Potential Impacts												Any adverse effect on the integrity of European sites (post mitigation)
	Construction						Operation						
	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Invasive Species	Air Quality	Disturbance / Displacement	Habitat Loss and Fragmentation	Hydrology	Hydro-geology	Invasive Species	Air Quality	Disturbance / Displacement	
<i>South Dublin Bay and River Tolka Estuary SPA</i>	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	✓ Section 7.1.4.2 Section 5.3 in CEMP	X	X	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	✓ Section 7.1.4.2 Section 5.3 in CEMP	X	X	No
<i>Malahide Estuary SPA</i>	X	✓ Section 7.8.3 / 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	X	✓ Section 7.8.3 / 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	No
<i>Baldoyle Bay SPA</i>	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	No
<i>Rogerstown Estuary SPA</i>	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	X	✓ Section 7.1.4.1 Section 5.4 in CEMP	X	X	X	X	No

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

8.2 Summary of residual Impacts

376 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 32 for the relevant European sites.

9 In combination Assessment

377 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).

378 There are 17 European sites within the Zoi of the Proposed Scheme, namely:

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

379 All other European sites fall beyond the Zoi of the Proposed Scheme. Therefore, there is no potential for any other plans or projects to act in combination with the Proposed Scheme to adversely affect the integrity of any other European sites. The protective policies and objectives from land use plans referred to in this section are included in Section 9.2.

9.1 Analysis of Potential In-combination Effects

- 380 The In-combination assessment involved in identifying those plans and projects which have the potential to impact on those European sites within the ZoI of the Proposed Scheme.
- 381 Those plans or projects with the potential to impact upon these European sites are any national, regional and local land use plans, or any existing or proposed projects that could potentially affect the ecological environment within the ZoI of the Proposed Scheme. These are Presented in Table 33.
- 382 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 33 were identified and assessed. This assessment is presented in Table 34.

Table 33 Land Use Plans and Programmes Considered for the In-Combination Assessment

National Plans
National Energy & Climate Plan 2021-2030
National Development Plan 2021-2030
Project Ireland 2040 – Building Ireland’s Future ²³
National Transport Authority Integrated Implementation Plan 2019-2024
Smarter Travel a Sustainable Transport Future 2009-2020
National Biodiversity Action Plan 2017-2021
River Basin Management Plan 2018-2021
National Air Pollution Control Programme (NAPCP) 2021
National Marine Planning Framework 2018
Water Services Strategic Plan 2015
Regional Plans
Regional Planning Guidelines for the Greater Dublin Area Vol I & II 2010-2022; Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031
Greater Dublin Area Cycle Network Plan 2013
Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016
County/Local Plans
Fingal Development Plan 2017-2023
Fingal Biodiversity Action Plan 2010-2015
Fingal County Council Climate Action Plan 2019-2024
<ul style="list-style-type: none"> • Donabate Local Area Plan 2016 • Rivermeade Local Area Plan 2018 • Barnhill Local Area Plan 2019 • Kinsaley Local Area Plan 2019 • Dublin Airport Local Area Plan 2020
Dublin City Development Plan 2016-2022
Dublin City Biodiversity Action Plan 2015-2020
Dublin City Council Climate Action Plan 2019-2024
<ul style="list-style-type: none"> • Clongriffin-Belmayne Local Area Plan 2012-2018 • George’s Quay Local Area Plan 2012-2022

²³ Together the National Development Plan and the National Framework are referred to as Project Ireland 2040: Building Ireland’s Future

<ul style="list-style-type: none"> Ballymun Local Area Plan 2017
<ul style="list-style-type: none"> The Liberties Local Area Plan 2009-2020
<ul style="list-style-type: none"> Naas Road Local Area Plan 2013-2023
<ul style="list-style-type: none"> Park West- Cherry Orchard Local Area Plan 2019
South Dublin County Council Development Plan 2016-2022
Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation
South Dublin County Council Climate Change Action Plan 2019-2024
<ul style="list-style-type: none"> Tallaght Town Centre Local Area Plan 2020 Liffey Valley Town Centre Local Area Plan 2008
Dún Laoghaire- Rathdown Development Plan (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
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Bray Municipal District Local Area Plan 2018-2024 Bray & Environs Transport Study 2019 Bray Town Development Plan 2011-2017
Projects
<ul style="list-style-type: none"> Widening of the M7 between Junction 9 (Naas North) and Junction 11 (M7/M9) to provide an additional lane in each direction
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> N3 Castaheany Interchange Upgrade
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> N3–N4: Barnhill to Leixlip Interchange
<ul style="list-style-type: none"> Reconfiguration of the N4 from its junction with the M50 to Leixlip to rationalise accesses and to provide additional capacity at the Quarryvale junction
<ul style="list-style-type: none"> Clonburris SDZ roads development
<ul style="list-style-type: none"> DART+ Programme West
<ul style="list-style-type: none"> Porterstown Distributor Link Road
<ul style="list-style-type: none"> Widening of the N3 between Junction 1 (M50) and Junction 4 (Clonee), plus related junction and necessary changes to the existing national road network
<ul style="list-style-type: none"> Lucan LUAS
<ul style="list-style-type: none"> DART+ Programme South West
<ul style="list-style-type: none"> Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required
<ul style="list-style-type: none"> Finglas LUAS (Green Line extension Broombridge to Finglas)
<ul style="list-style-type: none"> DART+ Tunnel Element (Kildare Line to Northern Line)
<ul style="list-style-type: none"> Potential Metro South alignment: SW option
<ul style="list-style-type: none"> LUAS Cross City incorporating LUAS Green Line Capacity Enhancement - Phase 1
<ul style="list-style-type: none"> Oldtown-Mooretown Western Distributor Link Road
<ul style="list-style-type: none"> Potential Metro South alignment: Charlemont to Sandyford

<ul style="list-style-type: none"> Poolbeg LUAS
<ul style="list-style-type: none"> Leopardstown Link Road Phase 2
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> Poolbeg SDZ roads development:
<ul style="list-style-type: none"> Glenamuck District Distributor Road
<ul style="list-style-type: none"> DART+ Programme Coastal North
<ul style="list-style-type: none"> Widening of the M50 to three lanes in each direction between Junction 14 (Sandyford) and Junction 17 (M11) plus related junction and other changes
<ul style="list-style-type: none"> Cherrywood SDZ roads development
<ul style="list-style-type: none"> DART+ Coastal South
<ul style="list-style-type: none"> R126 Donabate Relief Road: R132 to Portrane Demesne
<ul style="list-style-type: none"> Extension of LUAS Green Line to Bray
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> MetroLink
<ul style="list-style-type: none"> Greater Dublin Drainage (GDD)
<ul style="list-style-type: none"> Cycling: Greater Dublin Area Cycle Network Plan (excluding Radial Core Bus Corridor elements)
<ul style="list-style-type: none"> Dublin Array - offshore windfarm
<ul style="list-style-type: none"> Air insulated switchgear 110kV transmission substation. Platin, Duleek
<ul style="list-style-type: none"> Construction of a new distributor road and junction to the southwest of Kells town centre. Kells
<ul style="list-style-type: none"> Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown
<ul style="list-style-type: none"> FCC/12/0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide
<ul style="list-style-type: none"> Alternations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp
<ul style="list-style-type: none"> 110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and wastewater 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
<ul style="list-style-type: none"> 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.
<ul style="list-style-type: none"> A residential development with ancillary commercial uses (retail unit, café and crèche) partially comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin.
<ul style="list-style-type: none"> 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.
<ul style="list-style-type: none"> 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.
<ul style="list-style-type: none"> 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
<ul style="list-style-type: none"> 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.
<ul style="list-style-type: none"> Aviation fuel pipeline. Location: Inlet Station: Team CV, Bond Drive, Dublin Port, Dublin 1 to Dublin Airport, Co. Dublin
<ul style="list-style-type: none"> Clongriffin to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> Swords to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> Ballymun / Finglas to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> Lucan to City Centre Core Bus Corridor Scheme

<ul style="list-style-type: none"> • Liffey Valley to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Kimmage to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Bray to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Belfield / Blackrock to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Ringsend to City Centre Core Bus Corridor Scheme
<ul style="list-style-type: none"> • Strategic Housing Developments (SHDs) <i>(Impact dependent on proximity to Proposed Scheme.)</i>
<ul style="list-style-type: none"> • Strategic Infrastructure Development (SIDs) - Park development project at the Racecourse Park
<ul style="list-style-type: none"> • Strategic Infrastructure Development (SIDs) - 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation
<ul style="list-style-type: none"> • Irish Water Projects <i>(Impact dependent on proximity to Proposed Scheme.)</i> Larger scale Irish Water infrastructure projects are described separately under major projects
<ul style="list-style-type: none"> • IW06 Blanchardstown Regional Drainage Scheme
<ul style="list-style-type: none"> • IW01 Lower Liffey Valley Regional Sewerage Scheme – Leixlip transfer pipeline and Wastewater Network Upgrade

Table 34: 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
<p>National Energy & Climate Plan 2021-2030</p> <p>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.</p> <p>In relation to transport the plan aims to:</p> <ul style="list-style-type: none"> 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. 	<p>No potential impact pathways to European sites.</p> <p>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 (Zol) of the proposed scheme.</p>	<p>No in combination impact</p> <p>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.</p>
<p>National Development Plan Ireland 2021-2030</p> <p>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 that aims to balance demand for public investment across all sectors and regions of Ireland with a major focus on the delivery of infrastructure projects.</p>	<p>There is the potential that developments implemented under the National Development Plan could affect European sites within the Zol 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 sites, or be situated in a location where they may be within the Zol of those European sites.</p>	<p>No in combination impact.</p> <p>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 Zol 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-</p>

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
		<p>Rathdown CDP (2022-2028), and Wicklow CDP (2016-2022).</p> <p>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.</p> <p>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).</p> <p>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.</p>
<p>Project Ireland 2040 – National Planning Framework</p> <p>The National Planning Framework is a high-level strategic plan to guide future growth and development in Ireland. The NPF makes reference to delivering projects in Dublin; here Dublin refers to the Greater Dublin Area (GDA). This area includes Dublin City and the following surrounding lands and counties: Dun Laoghaire/Rathdown, Fingal, Kildare, Meath, South Dublin and Wicklow. Projects such as the DART expansion programme, Bus Connects</p>	<p>There is the potential that developments implemented under Project Ireland 2040 could affect European sites within the Zol of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through Project Ireland 2040 have the potential to lie either within those European sites, or be situated in a location where they may be within the Zol of those European sites.</p>	<p>No in combination impact.</p> <p>Any projects required to achieve the objectives of Project Ireland 2040 Plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the Zol 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).</p>

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
<p>Scheme, and investment at Dublin Port, amongst others are referenced. Key objectives of the plan include:</p> <p>Managing sustainable growth of cities, towns and villages</p> <p>Providing accessibility between key urban centres</p> <p>Enhance public transport in a sustainable manner</p>		<p>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.</p> <p>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).</p> <p>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.</p>
<p>National Transport Authority Integrated Implementation Plan 2019-2024</p> <p>An Infrastructure investment programme forms the core of this plan. There are four key investment areas: bus, light rail, heavy rail, and integration measures and sustainable transport. The NTA Integrated Implementation Plan refers to the delivery of projects in Dublin, such as the DART expansion program and GDA Cycle Network Plan, amongst others.</p>	<p>There is the potential that developments implemented under this plan could affect European sites within the Zol of the Proposed Scheme. The potential impact pathways cannot be defined based on the level of detail included in the plan. However, future developments implemented through this plan have the potential to lie either within those European sites, or be situated in a location where they may be within the Zol of those European sites.</p>	<p>No in combination impact.</p> <p>Any projects required to achieve the objectives of this plan must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the Zol 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).</p> <p>All of these land use plans contain objectives and policies to ensure the protection of European sites</p>

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
		<p>from any projects proposed within the plan area. These are presented in Section 9.2.</p> <p>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).</p> <p>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.</p>
<p>Smarter Travel a Sustainable Transport Future 2009-2020</p> <p>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.</p>	<p>There is the potential that developments implemented under Smarter Travel could affect European sites within the Zol of the Proposed Scheme. Smarter Travel does not propose or support any specific development proposals in identified locations and the potential impact pathways cannot be defined. However, future developments implemented through Smarter Travel have the potential to lie either within those European sites, or be situated in a location where they may be within the Zol of those European sites.</p>	<p>No in combination impact.</p> <p>Any projects required to achieve the objectives of smarter travel must comply with the requirements and obligations of EU and Irish planning and environmental law, including those of the relevant land use plans (Development Plans, Local Area Plans etc.). In the context of European sites within the Zol 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).</p> <p>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.</p>

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
		<p>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).</p> <p>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.</p>
<p>National Biodiversity Action Plan 2017-2021</p> <p>The National Biodiversity Action Plan sets out 119 targeted actions, underpinned by seven strategic objectives aimed at ensuring that Ireland's 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.</p>	<p>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems therefore, it will contribute towards maintaining or restoring the conservation condition of the European sites within their Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites</p>	<p>No in combination impact</p> <p>As the National Biodiversity Action Plan aims to halt biodiversity loss, no likely significant in-combination effects are predicted.</p>
<p>River Basin Management Plan 2018-2021</p> <p>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.</p>	<p>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 Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>No in combination impact</p> <p>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 Zol.</p>

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
<p>National Air Pollution Control Programme (NAPCP) 2021</p> <p>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.</p>	<p>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 Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>National Marine Planning Framework 2018</p> <p>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.</p>	<p>There is the potential that developments implemented under the National Marine Planning Framework could affect European sites within the Zol 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 Zol of those European sites.</p>	<p>No in combination impact.</p> <p>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 Zol 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).</p> <p>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.</p> <p>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).</p>

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
		<p>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 adverse effects on the integrity of any European sites in combination with the Proposed Scheme.</p>
<p>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.</p>	<p>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.</p>	<p>No in combination impact.</p> <p>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).</p> <p>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.</p> <p>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).</p> <p>Considering the environmental protection policies included within those land use plans, and that alone</p>

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 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.
<p>Regional Spatial & Economic Strategy for the Eastern and Midland Region 2019-2031</p> <p>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.</p>	<p>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.</p>	<p>No in combination impact.</p> <p>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).</p> <p>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.</p> <p>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).</p> <p>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the</p>

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
		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.
<p>Greater Dublin Area Cycle Network Plan 2013</p> <p>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.</p>	<p>The Proposed Scheme lies partly within the functional area of the Dublin City Development Plan 2016-2022 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey</p>	<p>No in combination impact.</p> <p>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.</p> <p>The Greater Dublin Area Cycle Network Plan 2013 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.</p> <p>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 Proposed Scheme to adversely affect the integrity of any European sites.</p> <p>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 Zol of the Proposed Scheme, the</p>

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
	<p>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);</p> <p>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);</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows); and,</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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).</p> <p>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.</p> <p>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).</p> <p>Considering the environmental protection policies included within those land use plans, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the Greater Dublin Area 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.</p>
<p>Eastern Catchment Flood Risk Assessment and Management (CFRAM) study 2011-2016</p> <p>This study includes the following main elements within the Eastern catchment:</p> <ul style="list-style-type: none"> Flood Risk Assessments Flood Risk Mapping Flood Risk Management Plans 	<p>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.</p>	<p>No in combination impact.</p> <p>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.). 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-</p>

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
		<p>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.</p> <p>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).</p> <p>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.</p>
<p>Fingal Development Plan 2017-2023</p> <p>The Fingal CDP makes reference to residential development, zoning and infrastructure targets / obligations.</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, 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.</p> <p>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</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Fingal Development Plan 2017-</p>

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
	<p>Habitat fragmentation (for example European sites at risk of ex-situ habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>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.</p>

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
<p>Fingal Biodiversity Action Plan 2010-2015 The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems.</p>	<p>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 Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>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 Zol.</p>
<p>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.</p>	<p>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 Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>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 Zol.</p>
<p>Donabate Local Area Plan 2016 The LAP makes reference to phased housing development targets / obligations.</p>	<p>The Proposed Scheme lies with the functional area of the Dublin City Development Plan 2016-2022 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 Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA,</p>	<p>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</p>

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
	<p>Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>Scheme to adversely affect the integrity of any European sites.</p>
<p>Rivermeade Local Area Plan 2018</p> <p>The LAP makes reference to 11 development area targets / obligations and the creation of a link road to connect Rivermeade to Swords.</p>	<p>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 Rivermeade Local Area Plan 2018, have the potential to act in combination with the</p>	<p>No in combination impact.</p> <p>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,</p>

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
	<p>Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p>	<p>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.</p> <p>Considering the protective environmental policies contained within the Rivermeade Local Area Plan 2018, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.</p>

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
	Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA)	
<p>Barnhill Local Area Plan 2019</p> <p>The LAP makes reference to residential development targets / obligations.</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, 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.</p> <p>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</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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
	<p>Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	
<p>Kinsaley Local Area Plan 2019 The LAP makes reference to commercial and residential development targets / obligations.</p>	<p>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 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.</p> <p>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</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p>

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
	<p>Habitat fragmentation (for example European sites at risk of ex-situ habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>Considering the protective environmental policies contained within the Kinsale 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.</p>
<p>Dublin Airport Local Area Plan 2020</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022 and some of the</p>	<p>No in combination impact.</p>

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
<p>The LAP makes reference to airside and landside infrastructure targets / obligations.</p>	<p>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.</p> <p>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</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Dublin Airport Local Area Plan 2020, and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, this land use plan will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.</p>

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
	<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	
<p>Dublin City Development Plan 2016-2022</p> <p>The Dublin City CDP makes reference to improvement of the public transport network and facilities for pedestrians and cyclists and targets / obligations to create strategic development and regeneration areas.</p>	<p>The Proposed Scheme lies 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 the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>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</p>	<p>No in combination impact.</p> <p>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 European sites as a result of implementation of the plan.</p> <p>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.</p> <p>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.</p>

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
	<p>species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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);</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows); and,</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA.</p>	
<p>Dublin City Biodiversity Action Plan 2015-2020</p> <p>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>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.</p>	<p>No in combination impact</p> <p>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.</p>

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
<p>Dublin City Council Climate Action Plan 2019-2024</p> <p>The purpose of this action plan is to improve the council’s energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin.</p>	<p>This plan will contribute towards improving the climate change resilience of the European sites within their Zol. 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide</p>	<p>No in combination impact</p> <p>The plan is intended to improve the quality of the environment within its Zol.</p> <p>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 Zol 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).</p> <p>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.</p> <p>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).</p> <p>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.</p>

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
	<p>Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA.</p>	
<p>Clongriffin-Belmayne Local Area Plan 2012-2018</p> <p>The LAP makes reference to commercial and residential development targets / obligations, and targets associated with interconnecting walking, cycling and public transport routes.</p>	<p>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 Clongriffin-Belmayne Local Area Plan 2012-2018, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA,</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>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</p>

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
	<p>Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>the Proposed Scheme to adversely affect the integrity of any European sites.</p>
<p>George’s Quay Local Area Plan 2012-2022</p> <p>The LAP makes reference to mixed use development targets / obligations, and targets associated with the improvement of pedestrian and cycling infrastructure.</p>	<p>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 George’s Quay Local Area Plan 2012-2022, have the potential to act in combination with</p>	<p>No in combination impact.</p> <p>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</p>

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
	<p>the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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);</p>	<p>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.</p> <p>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.</p> <p>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.</p>
<p>Ballymun Local Area Plan 2017</p> <p>The LAP makes reference to residential development targets / obligations, and targets associated with the development of M50 lands</p>	<p>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 Ballymun Local Area Plan 2017, have the potential to act in combination with the</p>	<p>No in combination impact.</p> <p>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,</p>

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
<p>and construction of outstanding road infrastructure e.g. Metro North.</p>	<p>Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p>	<p>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.</p> <p>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.</p> <p>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 will not act in combination with the Proposed Scheme to adversely affect the integrity of any European sites.</p>

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
	Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.	
<p>The Liberties Local Area Plan 2009-2020</p> <p>This LAP makes reference to increasing local authority housing, installing new infrastructure, and targets/obligations associated with creating new routes for pedestrians and cyclists.</p>	<p>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 Liberties Local Area Plan 2009-2020, have the potential to act in combination with the Proposed Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p>	<p>No in combination impact.</p> <p>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 be required to abide by the protective environmental policies contained within the Dublin City Development 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.</p> <p>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.</p> <p>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.</p>

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
	<p>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).</p>	
<p>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.</p>	<p>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.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Plan Description	Are there potential impact pathways by which the Plan / Programme could act in combination with the Proposed Scheme to adversely impact European sites	Will the Plan/Programme act in combination with the Proposed Scheme to adversely affect the integrity of European sites
	European sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	
<p>Park West- Cherry Orchard Local Area Plan 2019</p> <p>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.</p>	<p>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 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.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay 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</p> <p>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</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Park West- Cherry Orchard 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.</p>

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, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	
<p>South Dublin County Council Development Plan 2016-2022</p> <p>The South Dublin CDP makes reference to commercial and residential development (including Adamstown and Clonburriss SDZs), and infrastructure targets / obligations aimed at increasing connectivity between pedestrian and cycle routes and public transport.</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, however some of the objectives and policies of the South Dublin County Council 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide</p>	<p>No in combination impact.</p> <p>The South Dublin County Council 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 European sites as a result of implementation of the plan.</p> <p>The South Dublin County Council 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.</p> <p>Considering the protective environmental policies contained within the South Dublin County Council 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.</p>

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
	<p>Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA.</p>	
<p>Biodiversity Action Plan for South Dublin County (2020-2026)- Draft for public consultation</p> <p>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>South Dublin County Council Climate Change Action Plan 2019-2024</p> <p>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>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 Zol of the Proposed Scheme.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>Tallaght Town Centre Local Area Plan 2020</p> <p>This LAP makes reference to residential and mixed-use development targets / obligations,</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, however some of the objectives and policies of the Tallaght Town Centre</p>	<p>No in combination impact.</p> <p>The Tallaght Town Centre Local Area Plan 2020 was subject to AA screening and AA, prior to its adoption</p>

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
<p>and targets associated with the improvement of infrastructure connecting pedestrians, cycling and public transport.</p>	<p>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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>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.</p> <p>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.</p> <p>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.</p>

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
	<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	
<p>Liffey Valley Town Centre Local Area Plan 2008</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>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</p>	<p>No in combination impact.</p> <p>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 2016-2022 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.</p> <p>The South Dublin 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.</p> <p>Considering the protective environmental policies contained within the South Dublin 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</p>

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
	<p>conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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);</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows); and,</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>Proposed Scheme to adversely affect the integrity of any European sites.</p>
<p>Dún Laoghaire- Rathdown Development Plan 2022-2028</p> <p>The Dún Laoghaire- Rathdown CDP makes reference to commercial and residential development (including Cherrywood SDZ) targets / obligations, and targets associated</p>	<p>The Proposed Scheme lies within the functional area of the Dublin City Development Plan 2016-2022, however some of the objectives and policies of the Dún Laoghaire- Rathdown 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.</p>	<p>No in combination impact.</p> <p>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</p>

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
<p>with providing suitable community infrastructure.</p>	<p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird</p>	<p>European sites as a result of implementation of the plan.</p> <p>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.</p> <p>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.</p>

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
	species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).	
<p>Dún Laoghaire- Rathdown Biodiversity Plan 2009-2013; Dún Laoghaire- Rathdown Biodiversity Plan (current draft under review)</p> <p>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>This current plan will contribute towards maintaining or restoring the conservation condition of the European sites within their Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>Dún Laoghaire-Rathdown County Council Climate Change Action Plan 2019-2024</p> <p>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Dublin.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>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 Zol of the Proposed Scheme.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>Deansgrange Local Area Plan 2010-2020</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Dún Laoghaire- Rathdown 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.</p> <p>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</p>	<p>No in combination impact.</p> <p>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 be required 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.</p>

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
	<p>measurable in some way, but themselves will not affect the conservation objectives of European sites including:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>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.</p> <p>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.</p>

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
<p>Stillorgan Local Area Plan 2018-2024</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Dún Laoghaire- Rathdown 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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
	<p>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</p> <p>Disturbance and displacement impacts (for example ex-situ inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	
<p>Blackrock Local Area Plan 2015-2021</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Dún Laoghaire- Rathdown 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA,</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Blackrock Local Area Plan 2015-2021, 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.</p>

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
	<p>Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	
<p>Woodbrook-Shanganagh Local Area Plan 2017-2024</p> <p>This LAP makes reference to residential development targets / obligations, and targets associated with the improvement of</p>	<p>The Proposed Scheme lies within the functional area of the Dún Laoghaire- Rathdown Development Plan 2022-2028, however some of the objectives and policies of the Woodbrook-Shanganagh Local Area Plan 2017-2024, have the potential to act in combination with the Proposed</p>	<p>No in combination impact.</p> <p>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</p>

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
<p>infrastructure connecting pedestrians, cycling and public transport.</p>	<p>Scheme, through a variety of potential impact pathways, to affect European sites.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>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.</p> <p>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.</p> <p>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.</p>

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
	Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.	
<p>Wicklow County Development Plan 2016-2022</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Wicklow County Development Plan 2016-2022, 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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
	Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).	
<p>Wicklow Biodiversity Plan 2010-2015</p> <p>The purpose of this action plan is to halt the loss of biodiversity and the degradation of ecosystems.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>This plan will contribute towards maintaining or restoring the conservation condition of the European sites within their Zol. Consequently, there are no potential impact pathways by which it could adversely affect the integrity of any European sites.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>Wicklow County Council Climate Change Adaptation Strategy 2019</p> <p>The purpose of this action plan is to improve the council's energy efficiency, reduce their greenhouse emissions and create a climate resilient Wicklow.</p>	<p>No, there are no potential impact pathways to European sites.</p> <p>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 Zol of the Proposed Scheme.</p>	<p>No in combination impact</p> <p>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 Zol.</p>
<p>Bray Municipal District Local Area Plan 2018-2024</p> <p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Wicklow County Development Plan 2016-2022, 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.</p> <p>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:</p>	<p>No in combination impact.</p> <p>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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Bray Municipal District Local Area Plan 2018-2024, and that alone the Proposed Scheme</p>

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
	<p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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.</p>
<p>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.</p>	<p>The Proposed Scheme lies within the functional area of the Wicklow County Development Plan 2016-2022, 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.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA,</p>	<p>No in combination impact.</p> <p>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 be required 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.</p> <p>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.</p> <p>Considering the protective environmental policies contained within the Wicklow County Development</p>

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
	<p>Lambay Island SPA, Ireland’s Eye SPA and The Murrough SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland’s Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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 Scheme to adversely affect the integrity of any European sites.</p>

Table 35: 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	<p>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.</p> <p>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.</p> <p>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 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.</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p>
MP02	Enhancements of the N2/M2 national route inclusive of a bypass of Slane, to provide for additional capacity on the non-	There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely	No in-combination effect.

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	motorway sections of this route, and to address safety issues in Slane village associated with, in particular, heavy goods vehicles	affect the integrity of any European sites within the Zol of the Proposed Scheme.	
MP03	N3 Castaheany Interchange Upgrade	<p>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.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed N3 Castaheany Interchange Upgrade project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant development Plan. This land use plan contains objectives and policies to ensure the protection of European sites.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required. In granting permission for the proposed project, it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme. Considering the lack of physical overlap between the Proposed Scheme and the N3 Castaheany Interchange Upgrade project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme</p>

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).	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 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	<p>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.</p> <p>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:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed Reconfiguration of the N7 from its junction with the M50 to Naas, the</p>

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?
		<p>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).</p>	<p>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.</p> <p>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.</p>
MP05	N3–N4: Barnhill to Leixlip Interchange	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull</p>	<p>No in-combination effect.</p> <p>The proposed N3-N4 Barnhill to Leixlip Interchange project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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</p>

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?
		<p>Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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).</p>	<p>pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and proposed N3-N4 Barnhill to Leixlip Interchange project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed N30N4 Barnhill to Leixlip Interchange and has included mitigation in that regard to prevent any such adverse effects.</p>
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	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water</p>	<p>No in-combination effect.</p> <p>The proposed Reconfiguration of the N4 from its junction with the M50 to Leixlip 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.</p> <p>The proposed reconfiguration works will be subject to planning consent, including preparation of an EIAR and</p>

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?
		<p>quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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).</p>	<p>AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the Reconfiguration of the N4 from its junction with the M50 to Leixlip, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Reconfiguration of the N4 from its junction with the M50 to Leixlip and has included mitigation in that regard to prevent any such adverse effects.</p>
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	<p>No in-combination effect.</p> <p>The proposed Clonburris SDZ roads development project must comply with all applicable planning and environmental approval requirements, and be in</p>

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?
		<p>Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.</p> <p>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:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>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</p>

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		Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.	included mitigation in that regard to prevent any such adverse effects.
MP08	DART+ Programme West	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull</p>	<p>No in-combination effect.</p> <p>The proposed DART + Programme West project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>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.</p> <p>Considering the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed</p>

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		<p>Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>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.</p> <p>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.</p>
MP09	Porterstown Distributor Link Road	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p>

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?
		<p>Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>In granting permission for the proposed Porterstown Distributor link road, it will be necessary to demonstrate that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>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.</p> <p>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.</p>
MP10	Widening of the N3 between Junction 1 (M50) and Junction	As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in	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?
	<p>4 (Clonee), plus related junction and necessary changes to the existing national road network</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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).</p>	<p>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.</p> <p>The proposed N3 widening will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed N3 widening project between Junction 1 (M50) and Junction 4 (Clonee), the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in</p>

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?
			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	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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).</p>	<p>No in-combination effect.</p> <p>The proposed Lucan LUAS project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>The proposed Lucan LUAS will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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</p>

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?
			<p>combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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.</p>
MP12	DART+ Programme South West	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary</p>	<p>No in-combination effect.</p> <p>The proposed DART+ Programme 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.</p> <p>The proposed DART+ Programme 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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for the DART+ Programme 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,</p>

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?
		<p>SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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,</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>either alone or in combination with the Proposed Scheme.</p> <p>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.</p> <p>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.</p>
MP13	Junction upgrades and other capacity improvements on the M1 motorway, including additional lanes south of Drogheda, where required	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed M1 motorway upgrades will be subject to planning consent, including preparation of an EIAR</p>

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?
		<p>Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for the M1 motorway upgrades it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>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.</p> <p>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.</p>

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)	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed Finglas LUAS project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>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.</p>
MP15	DART+ Tunnel Element (Kildare Line to Northern Line)	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>The proposed DART+ Tunnel element (Kildare Line to Northern Line) project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>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.</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA); and</p> <p>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).</p>	<p>Considering the lack of physical overlap between the Proposed Scheme and proposed DART+ Tunnel element (Kildare Line to Northern Line) project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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.</p>
MP16	Potential Metro South alignment: SW option	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA,</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p>

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?
		<p>Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>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.</p> <p>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.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Potential Metro South alignment: SW option and has included mitigation in that regard to prevent any such adverse effects.</p>
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	No in-combination effect. The proposed LUAS ss City incorporating LUAS Green Line Capacity Enhancement - Phase 1 enhancements

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?
		<p>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.</p> <p>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.</p> <p>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 SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA).</p>	<p>works were subject to consent, which was required to comply with requirements of the EIA and Habitats Directive as relevant. In granting consent it was necessary to determine that the project would not adversely affect any European sites, including arising from any impacts on water quality. Considering that alone, neither the Proposed Scheme nor the LUAS enhancements works, will adversely affect the integrity of any European sites, the lack of any overlap either physically or in terms of the time of construction works, and the range of mitigation measures included in the Proposed Scheme to avoid significant impacts on water quality which is the only pathway with potential for in combination effects, the two projects will not generate any in combination effects which could adversely affect the integrity of any European sites.</p> <p>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</p>
MP18	Oldtown-Mooretown Western Distributor Link 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 Zol of the Proposed Scheme.	No in-combination effect.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
MP19	Potential Metro South alignment: Charlemont to Sandyford	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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</p>
MP20	Poolbeg LUAS	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>The proposed Poolbeg LUAS project must comply with all applicable planning and environmental approval requirements, and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>The proposed Poolbeg LUAS will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for the Poolbeg 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.</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA); and</p> <p>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).</p>	<p>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.</p> <p>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.</p>
MP21	Leopardstown Link Road Phase 2	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 Zol of the Proposed Scheme.	No in-combination effect.
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	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed development of a road link connecting the southern end of the Dublin Port Tunnel to the South Port area 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.</p> <p>The proposed link road will be subject to planning consent, including preparation of an EIAR and AA</p>

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?
		<p>the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows).</p>	<p>Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>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.</p>
MP23	Poolbeg SDZ roads development: refer to "Details" link	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	<p>No in-combination effect.</p> <p>The proposed Poolbeg SDZ roads development project must comply with all applicable planning and</p>

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?
		<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed Poolbeg SDZ roads development project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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</p>

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?
		Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).	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	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water</p>	<p>No in-combination effect.</p> <p>The proposed DART+ Programme Coastal North project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>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,</p>

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?
		<p>quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>either alone or in combination with the Proposed Scheme.</p> <p>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.</p> <p>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.</p>
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	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 Zol of the Proposed Scheme.	No in-combination effect.

Application Reference	Applicant for 'Other Development' and Brief Description	Potential for In-combination effect	Conclusion regarding In-combination effect Will the project act in combination with the Proposed Scheme to adversely affect the integrity of European sites?
MP27	Cherrywood SDZ roads development	There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the Zol of the Proposed Scheme.	No in-combination effect.
MP28	DART+ Programme Coastal South	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>The proposed DART+ Programme 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.</p> <p>The proposed DART+ Programme Coastal South will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for DART+ Programme Coastal South 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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the DART+ Programme 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</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance Zol of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites. The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed DART+ Programme Coastal South and has included mitigation in that regard to prevent any such adverse effects.</p>
MP29	R126 Donabate Relief Road: R132 to Portrane Demesne	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 Zol of the Proposed Scheme.	No in-combination effect.
MP30	Extension of LUAS Green Line to Bray	There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the Zol of the Proposed Scheme.	No in-combination effect.
MP31	Capacity enhancement and reconfiguration of the M11/N11 from Junction 4 (M50) to Junction 14 (Ashford) inclusive of ancillary and	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	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?
	associated road schemes, to provide additional lanes and upgraded junctions, plus service roads and linkages	affect the integrity of any European sites within the Zol of the Proposed Scheme.	
MP32	MetroLink	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed MetroLink will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for MetroLink it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>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.</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA.</p>	<p>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.</p>
MP33	Greater Dublin Drainage (GDD)	<p>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.</p> <p>The only potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for the proposed Greater Dublin Drainage 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</p>

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?
		<p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA.</p>	<p>the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed Greater Dublin Drainage project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme 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.</p> <p>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.</p>
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	<p>No in-combination effect.</p> <p>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</p>

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?
		<p>measurable in some way, but themselves will not affect the conservation objectives of European sites.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, , Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance</p>	<p>(Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>Proposals arising out of the cycle network plan will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Greater Dublin Area Cycle Network Plan elements and has included mitigation in that regard to prevent any such adverse effects.</p>

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?
		Zoi of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).	
MP35	Dublin Array - offshore windfarm	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p> <p>In granting permission for the Dublin Array - offshore windfarm project it will be necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>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</p>

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).	<p>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.</p> <p>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.</p>
303678	Air insulated switchgear 110kV transmission substation. Platin, Duleek	There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
304799	Construction of a new distributor road and junction to the southwest of Kells town centre. 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 Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.

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JA0040	Dublin Mountain Visitors Centre and all associated works. Killakee and Jamestown	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 Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
304624	FCC/12/0001 Broadmeadow Way. Greenway between Malahide Demesne and Newbridge Demesne to be known as 'Broadmeadow Way'. Malahide	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 Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
307073	Alternations to a permitted double circuit 110kV electricity transmission line development between substations. Darndale / Belcamp	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p>

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

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303249	110kV onsite electrical substation with associated electrical plant, electrical equipment, welfare facilities and wastewater holding tank and security fencing. 110kV overhead line grid connection cabling, upgrade of existing tracks and provision of new site access roads with all associated site development and ancillary works. Timahoe East	There is no physical overlap between the Proposed Scheme and this project and there are no potential impact pathways by which this project could adversely affect the integrity of any European sites within the Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
304888	15-year permission for development at Oil Berth 3 and Oil Berth 4, Eastern Oil Jetty and at Berths 50A, 50N, 50S, 51, 51A, 49, 52, 53 and associated terminal yards to provide for various elements including new Ro-Ro jetty and consolidation of passenger terminal buildings. Dublin Port.	As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. 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 SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary	No in-combination effect. 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 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,

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?
		<p>SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows).</p>	<p>either alone or in combination with the Proposed Scheme.</p> <p>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.</p> <p>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.</p>
306583	<p>A residential development with ancillary commercial uses (retail unit, café and crèche) partially comprising a "Build to Rent" scheme on circa 9.69 hectares. The townlands of Shanganagh, Cork Little and Shankill, Co. Dublin.</p>	<p>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 Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).</p>	<p>No in-combination effect.</p>
307352	<p>The proposed development for Brexit Infrastructure will consist of - Installation of porta-cabin structures.</p>	<p>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</p>	<p>No in-combination effect.</p> <p>The proposed project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies</p>

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	<p>Resurfacing and amalgamation of existing yards. Parking for heavy good vehicles, cars and bicycles. Gates, signage and all ancillary site works. Dublin Port.</p>	<p>Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay 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</p> <p>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).</p>	<p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed development for Brexit Infrastructure at Dublin Port, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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</p>

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			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 Zol of the Proposed Scheme either via habitat fragmentation or habitat degradation impacts (either hydrological, invasive species, air quality or disturbance/displacement to SCI species).	No in-combination effect.
307296	Construction of a 2 storey 110kV Gas Insulated Switchgear (GIS) substation, underground cable and all associated and ancillary site works. Former Clyde House, IDA Blanchardstown Business and Technology Park, Snugborough Road, Blanchardstown, Dublin 15	As assessed in Section 7, the Proposed Scheme will not adversely affect the integrity of any European site in isolation. Therefore, the potential for in combination effects to arise are limited to those effects the Proposed Scheme will have on the receiving environment that are measurable in some way, but themselves will not affect the conservation objectives of European sites. 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 SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye	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 Gas insulated switchgear substation 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

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?
		<p>SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrrough SPA); and</p> <p>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).</p>	<p>column in this table, either alone or in combination with the Proposed Scheme.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed 110kV Gas Insulated Switchgear (GIS) substation and underground cable project, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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.</p>
306725	<p>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.</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA</p>

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		<p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for <i>example ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>Screening Report/Natura Impact Statement, if required.</p> <p>In granting permission for the proposed River Poddle flood alleviation works 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.</p> <p>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.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed River Poddle flood alleviation works and has included mitigation in that regard to prevent any such adverse effects.</p>

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245738 (DCC ref: 2552/15)	Aviation fuel pipeline. Location: Inlet Station: Team CV, Bond Drive, Dublin Port, Dublin 1 to Dublin Airport, Co. Dublin	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed Aviation Fuel Pipeline project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>The proposed SID will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the Aviation</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA);</p> <p>Habitat degradation as a result of air quality impacts (for example South Dublin Bay and River Tolka Estuary SPA will be adjacent to Clontarf Road at risk of increased traffic flows); and,</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>Fuel Pipeline and has included mitigation in that regard to prevent any such adverse effects.</p>
	<p>Clongriffin to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p>	<p>No in-combination effect.</p> <p>The proposed Clongriffin to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>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</p>

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?
		<p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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.</p> <p>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.</p> <p>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.</p>
	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	<p>No in-combination effect.</p> <p>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</p>

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?
		<p>measurable in some way, but themselves will not affect the conservation objectives of European sites.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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?
		<p>ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	
	<p>Ballymun / Finglas to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the Ballymun / Finglas to City Centre Core Bus Corridor Scheme , the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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.</p> <p>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.</p>
	<p>Lucan to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill</p>	<p>No in-combination effect.</p> <p>The proposed Lucan to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>In granting permission for Bus Corridor Scheme, it will be necessary to determine that the project will not</p>

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?
		<p>to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA,, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, Dalkey Islands SPA and The Murrrough SPA); and</p> <p>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).</p>	<p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the Lucan to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Lucan to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects.</p>
	<p>Liffey Valley to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p>	<p>No in-combination effect.</p> <p>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.</p>

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?
		<p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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).</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>The Proposed Scheme will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the proposed Liffey Valley to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects.</p>

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?
	Tallaght / Clondalkin to City Centre Core Bus Corridor Scheme	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of ex-situ habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed 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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>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.</p>
	<p>Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme project must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>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.</p> <p>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.</p>

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?
		<p>SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>Considering the lack of physical overlap between the Proposed Scheme and the Templeogue / Rathfarnham to City Centre Core Bus Corridor Scheme, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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.</p>
	<p>Kimmage to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p>	<p>No in-combination effect.</p> <p>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.</p>

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?
		<p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay 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</p> <p>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).</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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?
	<p>Bray to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>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.</p>
	<p>Belfield / Blackrock to City Centre Core Bus Corridor Scheme</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed Belfield / 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.</p> <p>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.</p> <p>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.</p>

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?
		<p>SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>Considering the lack of physical overlap between the Proposed Scheme and the Belfield / Blackrock 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.</p> <p>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 Belfield / Blackrock to City Centre Core Bus Corridor Scheme and has included mitigation in that regard to prevent any such adverse effects.</p>
	Ringsend to City Centre Core Bus Corridor Scheme	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p>	<p>No in-combination effect.</p> <p>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.</p>

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?
		<p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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);</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

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?
	<p>Strategic Housing Developments (SHDs) (Impact dependent on proximity to Proposed Scheme.)</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>Proposed SHD projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>Proposed SHD Schemes will not adversely affect the integrity of any European sites, in its own right, nor in combination with other projects, including the</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>proposed SHD schemes and has included mitigation in that regard to prevent any such adverse effects.</p>
311315	<p>Strategic Infrastructure Development (SIDs)</p> <p>Park development project at the Racecourse Park</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>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.</p> <p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p>

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?
		<p>SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZoI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrough SPA).</p>	<p>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.</p> <p>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 Racepark Course and has included mitigation in that regard to prevent any such adverse effects.</p>
309146, 309773	Strategic Infrastructure Development (SIDs) 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p>	<p>No in-combination effect.</p> <p>The proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p>

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?
		<p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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).</p>	<p>The proposed project will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>Considering the lack of physical overlap between the Proposed Scheme and the proposed project to install 2 no. 110kV transmission lines and a 110kV Gas Insulated Switchgear (GIS) substation, the environmental protection policies included within the relevant land use plans, the range of mitigation measures included in the Proposed Scheme to avoid significant impacts and that alone the Proposed Scheme will not adversely affect the integrity of any European sites, the project will not act in combination with the Proposed Scheme to have an adverse effect on the integrity of any European sites.</p> <p>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.</p>

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?
	<p>Irish Water Projects (Impact dependent on proximity to Proposed Scheme.) Larger scale Irish Water infrastructure projects are described separately under major projects</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat fragmentation (for example European sites at risk of <i>ex-situ</i> habitat losses; Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, North Bull Island SPA and South Dublin Bay and River Tolka SPA, Skerries Islands SPA, Lambay Island SPA, Ireland's Eye SPA and The Murrough SPA);</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA);</p> <p>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</p>	<p>No in-combination effect.</p> <p>Proposed Irish Water projects must comply with all applicable planning and environmental approval requirements and be in accordance with the objectives and policies of the relevant land use plans (Development Plans, Local Area Plans etc.). These land use plans contain objectives and policies to ensure the protection of European sites.</p> <p>Proposed Irish Water projects will be subject to planning consent, including preparation of an EIAR and AA Screening Report/Natura Impact Statement, if required.</p> <p>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.</p> <p>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.</p> <p>Scheme specific IW Schemes, other than those identified separately in this assessment, will not</p>

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?
		<p>SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA); and</p> <p>Disturbance and displacement impacts (for example <i>ex-situ</i> inland feeding sites which are utilised by SCI wintering bird species within the potential disturbance ZOI of the Proposed Scheme for Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Ireland's Eye SPA, Lambay Island SPA, North Bull Island SPA, South Dublin Bay and River Tolka SPA and The Murrrough SPA).</p>	<p>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.</p>
	<p>Irish Water Blanchardstown Sewer rehabilitation works</p>	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island</p>	<p>No in-combination effect.</p> <p>According to Irish Water website, this project was completed in 2019.</p>

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?
		<p>SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA); and</p> <p>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).</p>	
FW17A/0083	Irish Water Blanchardstown Regional Drainage Scheme & Irish Water 9C Sewer duplication and storage	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland's Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrrough SPA); and</p> <p>Habitat degradation as a result of introducing/spreading non-native invasive species (for example to downstream</p>	<p>No in-combination effect.</p> <p>The ongoing project will involve the upgrade of the existing wastewater network serving Blanchardstown, Mulhuddart and Castleknock as well as a number of towns in Meath including Dunboyne, Clonee, Ashbourne and Ratoath. It 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.</p> <p>The pipeline element of the project consists of a new sewer duplication of the existing 9C sewer for a distance of ca. 3.2 km with associated permanent manhole covers along its length; three cross-connections between the existing 9C Sewer and the proposed 9C sewer duplication (adjoining Parlickstown Road, Church Road and between Snugborough Road and Mill Road); underground storage tanks with a combined storage capacity of ca. 30,000m³, with associated manhole covers at ground level; a single storey control building (ca. 240 sq.m m) over an</p>

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 sites North Dublin Bay SAC, South Dublin Bay SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA).	underground waste water pumping station (ca. 271 sq.m m) located in a ca. 1,030 sq.m m compound with surrounding boundary fence; the storage tanks, control building and pumping station will be located in the park near Mill Road; 5 no. vehicular accesses associated with construction - 4 no. temporary vehicular accesses (off Parlickstown Road, Church Road, Old Navan Road and Blanchardstown Road North) and one permanent vehicular access off Waterville Distributor Road; 11 no. vent stacks ca. 7.6m high (one each adjoining Parlickstown Road, Church Road, Blanchardstown Road North, Snugsborough Road and the proposed pumping station (this vent stack is 5.2 m high), and 6 no. over the underground tanks); 3 no. electrical kiosks (adjoining Parlickstown Road, Church Road and at the pumping station site; Diversion of the existing 9C Sewer and an existing watermain to facilitate construction of the storage tanks; Diversion of 2 underground ESB lines and an overhead ESB line to facilitate the pumping station; 1 no emergency stormwater overflow to the River Tolka near Mill Road. The sewer will be substantially constructed by a bored tunnel. The following temporary works associated with the construction are proposed: 13 no. working areas (5 no. between Parlickstown Road and Church Road, 2 no. between Church Road and Blanchardstown Road North, 4 no. between Blanchardstown Road North and Snugborough Road and 2 no. between Snugborough Road and Mill Road); 7 no. haul roads (3 no. between Parlickstown Road and Church Road, 1 no. off the Old Navan Road, 2 no. between Blanchardstown Road

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?
			<p>North and Snugborough Road and 1 no. between Snugborough Road and Mill Road); 2 no. temporary culverts of the River Tolka adjoining Parlickstown Road and north east of the public car on the Old Navan Road; 1 no. temporary culvert of the River Pinkeen adjoining Church Road; 1 no. temporary bridge and 1 no. temporary extension of an existing culvert, both north east of the public car on the Old Navan Road.</p> <p>The proposed project was subject to planning consent, including preparation of an Environmental reports and EIAR and AA Screening Report/Natura Impact Statement, as required. I</p> <p>In granting permission for the proposed project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p> <p>It is recognised that the Proposed Scheme and the IW project are proximally located. The pipeline element is already complete while, the regional drainage scheme storage Infrastructure will be completed by 2023.</p> <p>There is no overlap in terms of works, except by virtue of location along the River Tolka. However, 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</p>

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 consented Blanchardstown Regional Drainage Scheme and has included mitigation in that regard to prevent any such adverse effects.
	Irish Water Lower Liffey Valley Regional Sewerage Scheme – Leixlip transfer pipeline and Wastewater Network Upgrade forms part of the Lower Liffey Valley Regional Sewerage Scheme Network upgrade	<p>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.</p> <p>The potential for in-combination effects could be as a result of:</p> <p>Habitat degradation/effects on QI/SCI species as a result of hydrological impacts (for example reduction in water quality in catchments draining to Dublin Bay affecting the conservation objectives supporting aquatic habitats and species in North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Howth Head Coast SPA, Rockabill to Dalkey Island SAC, Lambay Island SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Dalkey Islands SPA, Baldoyle Bay SPA, Ireland’s Eye SPA, Skerries Islands SPA, Rockabill SPA, Lambay Island SPA, Malahide Estuary SPA, Rogerstown Estuary SPA, and The Murrough SPA); and</p> <p>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</p>	<p>No in-combination effect.</p> <p>The proposed project to extend the existing wastewater network through the construction of 4.85km of sewer to Leixlip WwTP and construction of a new pumping station therein as well as the construction of approximately 8km of underground mains from the WwTP to Damastown Road, Blanchardstown 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.</p> <p>The proposed project was subject to planning consent, including preparation of a number of Environmental reports and EIAR and AA Screening Report/Natura Impact Statement.</p> <p>In granting permission for the proposed project, it was necessary to determine that the project will not result in adverse effects on the integrity of any European sites, including from any of the impact pathways listed in the previous column in this table, either alone or in combination with the Proposed Scheme.</p>

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).	<p>Given that the project is now largely complete (bulk of works completed in December 2021, and considering the lack of physical overlap between the consented scheme and the Proposed 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</p> <p>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 9C Sewer duplication and storage Scheme and has included mitigation in that regard to prevent any such adverse effects.</p>

9.2 Plan Level Environmental Protection Policies and Objectives

383 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 Council Development Plan 2016-2022, Wicklow County Development Plan 2016-2022 and Dún Laoghaire-Rathdown County Development Plan 2022-2028.

384 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 Council Development Plan 2016 – 2022, 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 Council Development Plan 2016 - 2022

Heritage, Conservation and Landscapes (HCL) Policy 12 Natura 2000 Sites: It is the policy of the Council to support the conservation and improvement of Natura 2000 Sites and to protect the Natura 2000 network from any plans and projects that are likely to have a significant effect on the coherence or integrity of a Natura 2000 Site.

- HCL12 Objective 1: To prevent development that would adversely affect the integrity of any Natura 2000 site located within and immediately adjacent to the County and promote favourable conservation status of habitats and protected species including those listed under the Birds Directive, the Wildlife Acts and the Habitats Directive.
- HCL12 Objective 2: To ensure that projects that give rise to significant direct, indirect or secondary impacts on Natura 2000 sites, either individually or in combination with other plans or projects,

will not be permitted unless the following is robustly demonstrated in accordance with Article 6(4) of the Habitats Directive and S.177AA of the Planning and Development Act (2000 – 2010) or any superseding legislation: 1. There are no less damaging alternative solutions available; and 2. There are imperative reasons of overriding public interest (as defined in the Habitats Directive) requiring the project to proceed; and 3. Adequate compensatory measures have been identified that can be put in place.

Heritage, Conservation and Landscapes (HCL) Policy 13 Natural Heritage Areas: It is the policy of the Council to protect the ecological, visual, recreational, environmental and amenity value of the County's proposed Natural Heritage Areas and associated habitats.

- HCL13 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.
- HCL13 Objective 2: To restrict development within 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.

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)⁷, the Birds Directive (2009/147/EC)⁸, the Environmental Liability Directive (2004/35/EC)⁹, 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:

- 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
- 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
- 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.

Dún 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 Objective 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 Objective 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.

Policy Objective GIB22: Non-Designated Areas of Biodiversity Importance: It is a Policy Objective to protect and promote the conservation of biodiversity in areas of natural heritage importance outside Designated Areas and to ensure that notable sites, habitats and features of biodiversity importance - including species protected under the Wildlife Acts 1976 and 2000, the Birds Directive 1979, the Habitats Directive 1992, Flora (Protection) Order, 2015, Annex I habitats, local important areas, wildlife corridors and rare species - are adequately protected. Ecological assessments will be carried out for all developments in areas that support, or have potential to support, features of biodiversity importance or rare and protected species and appropriate mitigation/ avoidance measures will be implemented. In implementing this policy, regard shall be had to the Ecological Network, including the forthcoming DLR Wildlife Corridor Plan, and the recommendations and objectives of the Green City Guidelines (2008) and 'Ecological Guidance Notes for Local Authorities and Developers' (Dún Laoghaire-Rathdown Version 2014).

Policy Objective GIB23: County-Wide Ecological Network: It is a Policy Objective to protect the Ecological Network which will be integrated into the updated Green Infrastructure Strategy and will align with the DLR County Biodiversity Action Plan. Creating this network throughout the County will also improve the ecological coherence of the Natura 2000 network in accordance with Article 10 of the Habitats Directive. The network will also include non-designated sites.

9.3 Conclusion of the In-Combination Assessment

- 385 The Proposed Scheme will not affect the integrity of any European sites. 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.
- 386 The in-combination assessment has concluded that there is no potential for adverse effects on the integrity of any European sites, 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 NIS, no adverse effects on European site integrity will arise from the implementation of the Proposed Scheme.
- 387 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.
- 388 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.
- 389 Table 34 and Table 35 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.
- 390 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.
- 391 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

- 392 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 European sites' qualifying interest habitats and species and special conservation interest species and whether the predicted impacts would adversely affect the integrity of North Dublin Bay SAC, South Dublin Bay SAC, Howth Head SAC, Rockabill to Dalkey Island SAC, Lambay Island SAC, Howth Head Coast SPA, Dalkey Islands SPA, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Malahide Estuary SPA, Baldoyle Bay SPA, Rogerstown Estuary SPA, Skerries Islands SPA, Rockabill SPA, Ireland's Eye SPA, The Murrough SPA or Lambay Island SPA. The possibility of significant effects on any other European site can be excluded.
- 393 Avoidance, design requirements and mitigation measures are set out within this NIS [and its appendices] and the effective implementation of these mitigation measures will ensure that any impacts on the conservation objectives of European sites will be avoided during the construction and operation of the Proposed Scheme, such that there will be no adverse effects on any European sites.
- 394 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 and there is no reasonable scientific doubt in relation to this conclusion.

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