Bonneagar Iompair Éireann
Transport Infrastructure Ireland

NTA
Údarás Náisiúnta Iompair
National Transport Authority

Luas Finglas

Appropriate Assessment Screening Report
2024

BARRY TRANSPORTATION
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Project Ireland 2040
Building Ireland's Future

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GLOSSARY OF FREQUENTLY USED TERMS

Acronym	Term
AA	Appropriate Assessment
CIEEM	Chartered Institute of Ecology and Environmental Management
CJEU	Court of Justice of the European Union
DCC	Dublin City Council
DoEHLG	Department of Environment, Heritage and Local Government
EEA	European Environment Agency
EC	Environmental Protection Agency
EU	European Union
FCC	Fingal County Council
GSI	Geological Survey Ireland
INNS	Invasive Non-native Species
IROPI	Imperative Reasons of Over-riding Public Interest
LRV	Light Rail Vehicle
NBDC	National Biodiversity Data Centre
NOx	Nitrogen Oxides
NPWS	National Parks and Wildlife Service
OPR	Office of the Planning Regulator
PM	Particulate Matter
QI	Qualifying Interest
RBMP	River Basin Management Plan
SAC	Special Area of Conservation
SCI	Special Conservation Interest
SPA	Special Protection Area
WFD	Water Framework Directive
WWTP	Waste Water Treatment Plant
ZoI	Zone of Influence

SECTION 1: INTRODUCTION

1.1 Background

This report, which contains information to assist the competent authority to undertake a screening for Appropriate Assessment (AA) in respect of the proposed Luas Finglas Scheme, Finglas, Co. Dublin, has been prepared by JBA Consulting Engineers and Scientists Ltd. (hereinafter referred to as "JBA") on behalf of the Transport Infrastructure Ireland (TII). It provides information on and assesses the potential in view of best scientific knowledge for the Luas Finglas Scheme to have likely significant effects, either individually or in combination with other plans or projects, on any Natura 2000 site.

Article 6(3) of Council Directive 92/43/EEC of 21st May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (the "Habitats Directive") requires that, any plan or project not directly connected with or necessary to the management of European sites, but likely to have significant effects thereon, either individually or in combination with other plans or projects, shall be subject to AA of its implications for the European sites in view of their conservation objectives. The requirements of Article 6(3) of the Habitats Directive have been transposed into Irish law by Part XAB of the Planning and Development Act 2000 (as amended) and the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended).

1.2 Legislative Context

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora, known as the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000 sites. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79 / 409 / EEC).

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans or projects affecting Natura 2000 sites.

Article 6(3) establishes the requirement for Appropriate Assessment:

'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.'

Article 6(4) deals with the steps that should be taken when it is determined, as a result of Appropriate Assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in such a case.

Article 6(4) states:

'If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory

measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and / or a priority species, the only considerations which may be raised are those relating to 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.'

The requirements of Articles 6(3) and 6(4) of the Habitats Directive have been transposed into Irish legislation by means of inter alia the European Communities (Birds and Natural Habitats) Regulations 2011-2015 (S.I. No. 477 / 2011) as amended

1.3 Appropriate Assessment Process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission in 2002, which was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2009, rev 2010). Office of the Planning Regulator (OPR) produced a Practice Note in 2021, PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021). Additionally, the European Commission's Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01 (EC, 2021) provides guidance on the process. These guidance documents identify a staged approach to conducting an AA, as shown Figure 1-1.

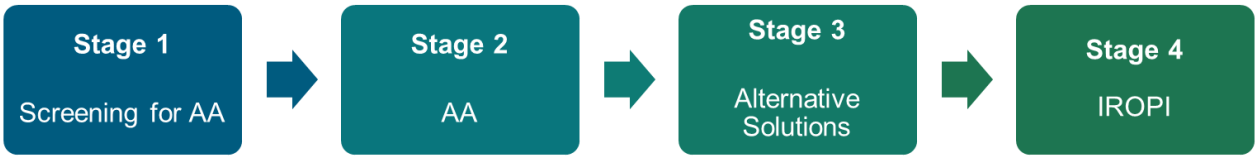

Figure 1-1: The Appropriate Assessment Process (from: Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities, DHLG, 2009)

1.3.1 Stage 1 - Screening for AA

The initial, screening stage of the Appropriate Assessment is to determine:

whether the proposed plan or project is directly connected with or necessary for the management of the European designated site for nature conservation (Natura 2000 site)

if it is likely to have a significant effect on the European designated site, either individually or in combination with other plans or projects

For those sites where, potential likely significant effects are identified, either alone or in combination with other plans or projects, further assessment is necessary to determine if the proposals will have an adverse impact on the integrity of a European designated site, in view of the site's conservation objectives (i.e., the process proceeds to Stage 2).

1.3.2 Stage 2 - AA

This stage requires a more in-depth evaluation of the plan or project, and the potential direct and indirect impacts of them on the integrity and interest features of the European designated site(s), alone and in-combination with other plans and projects, taking into account the site's conservation objectives. Where required, mitigation or avoidance measures will be suggested.

The competent authority can only agree to the plan or project after having ascertained that it will not adversely affect the integrity of the site(s) concerned. If this cannot be determined, and where mitigation

cannot be achieved, then alternative solutions will need to be considered (i.e., the process proceeds to Stage 3).

1.3.3 Stage 3 - Alternative Solutions

Where adverse impacts on the integrity of Natura 2000 sites are identified, and mitigation cannot be satisfactorily implemented, alternative ways of achieving the objectives of the plan or project that avoid adverse impacts need to be considered. If none can be found, the process proceeds to Stage 4.

1.3.4 Stage 4 - Imperative Reasons of Over-riding Public Interest (IROPI)

Where adverse impacts of a plan or project on the integrity of Natura 2000 sites are identified and no alternative solutions exist, the plan will only be allowed to progress if imperative reasons of overriding public interest can be demonstrated. In such a case compensatory measures will be required.

The process only proceeds through each of the four stages for certain plans or projects. For example, for a plan or project, not connected with management of a site, but where no likely significant effects are identified, the process stops at stage 1. Throughout the process, the precautionary principle must be applied, so that any uncertainties do not result in adverse impacts on a site.

This report is in support of a Stage 1 Screening for Appropriate Assessment.

1.3.5 Court of Justice of the European Union (CJEU) Rulings

The CJEU has been asked to issue rulings on development plans, which are used to inform this assessment.

The CJEU issued a ruling on the consideration of avoidance and reduction measures as a result of the case known as People over Wind, Peter Sweetman v Coillte Teoranta (Case C-323/17). This judgement stated that measures intended to reduce or avoid effects on a European site should only be considered within the framework of an AA, and it is not permissible to take into account such measures at the screening stage.

More recently, the decision of the CJEU in case C-721/21 (Eco Advocacy CLG v An Bord Pleanála), delivered in June 2023, found that Article 6(3) of the Habitats Directive must be interpreted as meaning that:

"in order to determine whether it is necessary to carry out an appropriate assessment of the implications of a plan or project for a site, account may be taken of the features of that plan or project which involve the removal of contaminants and which therefore may have the effect of reducing the harmful effects of the plan or project on that site, where those features have been incorporated into that plan or project as standard features, inherent in such a plan or project, irrespective of any effect on the site." (Para. 53(3) of the Judgement).

This recent judgement therefore clarifies that features which have been incorporated into a project as standard features, inherent in that project, and irrespective of any effect on any European site may be taken into account for the purposes of a Stage 1 Screening for Appropriate Assessment under Article 6(3) of the directive.

The CJEU ruling in the case of Holohan v An Bord Pleanála (C-461/17) [2018] also clarified the importance in Appropriate Assessment of taking into account habitat types and species outside the boundary of the Natura 2000 site where implications of the impacts on those habitat and species may impact the conservation objectives of the Natura 2000 site. In this assessment functionally linked and supporting habitat for species outside of Natura 2000 sites are assessed where they could potentially impact the conservation objectives of any Natura 2000 sites within the Zone of Influence (ZoI).

1.4 Methodology

The Screening for Appropriate Assessment has been prepared having regard to the Birds and Habitats Directives, the European Communities (Birds and Natural Habitats) Regulations 2011-15 as amended and relevant jurisprudence of the EU and Irish courts. The following documents have also been used to provide guidance for the assessment:

- DEHLG (2009 rev 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DEHLG, 2009);
- Office of the Planning Regulator (2021) OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021);
- European Communities (EC) (2018) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission, 2000);
- EC (2021) Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2018);
- EC (2022) Guidance document on assessment of plans and projects in relation to Natura 2000 sites - A summary (European Commission. Directorate General for Environment); and
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (Chartered Institute of Ecology and Environmental), (updated 2022).

1.4.1 Screening Methods

This screening assessment uses the source-pathway-receptor (S-P-R) model as outlined in guidance (OPR, 2021). Using the source-pathway-receptor model allows for the potential significant effects to be eliminated if no viable source, pathway, or receptor is present.

The S-P-R method uses an examination of the construction methods or proposed Scheme description allows sources of impact to be determined. This also allows a zone of influence (ZoI) for the proposed Scheme to be generated based on the size, scale and nature of the works involved. The pathways for impact are also analysed to see if a functional pathway for impact is present. This report analyses three pathways: surface water, groundwater and land. Using information gathered from desk sources (e.g. mapped qualifying interests from the Conservation Objectives for the site) and from field surveys, receptors within the zone of influence are identified. In some cases, sensitive receptors may also play a role in determining the zone of influence. If any of the three parts to the model are not present (source-pathway-receptor) the potential for a likely significant effect from the proposed Scheme on the Natura 2000 network can be discounted.

1.4.2 Likely Significant Effect Test

The test for AA Screening is whether the proposed Scheme could have a 'likely significant effect' on any Natura 2000 site. A likely significant effect is defined as any effect that could undermine the conservation objectives of a Natura 2000 site, either alone or in combination with other plans or projects. There must be a causal connection between the proposed Scheme and the qualifying interest of the site which could result in possible significant effects on the site. The likely significant effect test is a lower threshold for the screening assessment than 'adverse effect on site integrity' considered at Appropriate Assessment stage (Stage 2) as screening is intended to be a preliminary examination for potential effects.

The Zone of Influence was used to identify Natura 2000 sites that could be impacted by the proposed Scheme. For each of these sites, the Qualifying Interest features and their associated conservation objectives were identified, and the possibility of likely significant effect was determined by a combination of location, ecological and hydrological connectivity, sensitivity of receptor and magnitude of the source of impact.

1.4.3 Desktop study

A desktop study was conducted of available published and unpublished information, along with a review of data available on the National Parks and Wildlife Service (NPWS) and National Biodiversity Data Centre (NBDC) web-based databases, in order to identify key habitats and species (including legally protected and species of conservation concern) that may be present within ecologically relevant distances from the proposed Scheme as explained below. A baseline habitat assessment was performed using satellite imagery of the site. The data sources below (accessed August 2024) were consulted for the desktop study:

- Aerial photography available from www.osi.ie and ESRI World Imagery;
- NPWS website (www.npws.ie) where Natura 2000 site synopses, data forms and conservation objectives were obtained along with Annex I habitat distribution data and status reports;
- River Basin Management Plans (www.wfdireland.ie);
- NBDC Biodiversity Maps (maps.biodiversityireland.ie);
- Catchments (www.catchments.ie);
- Environmental Protection Agency Maps (https://gis.epa.ie/EPAMaps);
- Geological Survey Ireland (GSI) website (www.gsi.ie);
- GSI - Groundwater data viewer (https://dcenr.maps.arcgis.com); and
- Planning Applications (myplan.ie).

1.4.4 Ecological Site Surveys

To inform this AA Screening the initial ecological walkover survey was carried out on 26th May 2021 by Luas Team Ecologists. Updated habitat and invasive species surveys were also conducted 20th June 2023. Additionally, SCI-species focused wintering bird surveys (8 per season) were conducted by the Luas Team ecology team during the optimum survey months (December, January and February) for the 2021-2022, 2022-2023 and 2023-2024 winter periods. The survey dates are displayed in Table 1-1. The results of the surveys are set out in subs-section 3.4.

Table 1-1: Wintering bird survey dates across a three-year period

2021-2022 Winter Survey Period	2022-2023 Winter Survey Period	2023-2024 Winter Survey Period
01/12/2021	07/12/2022	15/12/2023
15/12/2021	16/12/2022	04/01/2024
05/01/2022	05/01/2023	12/02/2024
18/01/2022	13/01/2023	19/01/2024
27/01/2022	25/01/2023	02/02/2024
02/02/2022	02/02/2023	09/02/2024
10/02/2022	17/02/2023	23/02/2024
25/02/2022	28/02/2023	27/02/2024

The ecological walkover survey recorded habitats and protected species, following the methods outlined in the documents below:

- Heritage Council (2011). Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011); and
- Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Developments (NRA, 2009).

Aerial photographs and site maps assisted the survey. Habitats have been named and described following Fossitt (2000). Nomenclature for higher plants follows that given in The New Flora of the British Isles 4th Edition (Stace, 2019). Identification of Irish plants generally follows Webb's An Irish Flora (Parnell and Curtis, 2012).

1.4.5 In-Combination Effects

In relation to the assessment of potential of in-combination effects, where there is no effect at all via a pathway, there is no possibility of in-combination effects. Where potential likely significant effects are identified, the in-combination assessment is carried forwards to a Stage 2 Appropriate Assessment.

1.5 Competent Persons

The assessment was prepared by William Mulville BSc (Hons) Zoology, MSc in Biodiversity and Conservation. William is a Senior Ecologist with JBA and has over 6 years' experience in ecological consultancy. William is an Associate Member of the Chartered Institute of Ecological and Environmental Management (CIEEM).

The assessment has been reviewed by Patricia Byrne BSc (Hons) Zoology, PhD, MCIEEM. Patricia is Principal Ecologist with JBA, with over 20 years' experience in environmental and ecological research, teaching and reporting; and with seven years in ecological consultancy. Patricia is a full Member of the Chartered Institute of Ecological and Environmental Management (CIEEM).

1.6 Consultation

Consultation was made with a number of key stakeholders in relation to EU Natura 2000 sites which includes, but is not limited to the following:

- National Parks and Wildlife Service (NPWS);
  - An initial meeting with National Parks and Wildlife Services officials took place on 6th June 2023, where the proposed Scheme's ecological sensitivities and survey efforts were discussed at length. Following the meeting additional baseline and update surveys were conducted at the suggestion of the NPWS to ensure full coverage of sensitive ecological features within the ZoI of the proposed Scheme. Overall, the meeting was viewed as positive by all attending parties (NPWS, TII and BTEG) given the extent and detail of the ecological surveys completed to date and that all additional ecological survey efforts would be addressed over the following year before the planning submission.
  - A follow-up meeting with National Parks and Wildlife Services officials was held on 17th April 2024. At this follow-up meeting the NPWS staff were presented with an update on the most recent ecological findings recorded since 2023 meeting, including the expanded baseline surveys suggested by NPWS at the previous meeting. Additionally, the impact of land-use changes on migrant wintering bird species, particularly Light-bellied Brent Goose, was discussed at length, highlighting to the Luas Team the necessity to ensure the continued existence / reinstatement of natural amenity grassland areas within the boundaries of the proposed Scheme during its Operational Phase. The meeting was viewed as positive by all attending parties (NPWS, TII and BTEG), with a clear outcome detailing the final steps required from the Luas Team before the EIAR planning submission.
- Dublin City Council (DCC);
- Fingal County Council (FCC);
- Iarnród Éireann;
- Inland Fisheries Ireland; and
- Waterways Ireland.

1.7 Limitations and Constraints

This AA Screening is based on ecological site surveys and existing data from the above-mentioned sources. The screening assessment necessarily relies on some assumptions and is inevitably subject to some limitations as detailed below. These do not affect the conclusion, but the following points are recorded in order to ensure the basis of the assessment is clear:

- Information on the works and conditions on site are based on current knowledge at the time of writing. However, the site surveys have followed CIEEM (2019) Advice note on the lifespan of ecological reports and surveys; and
- The precautionary principle is utilised when determining potential ecological sensitivities within the proposed Scheme's ZoI.

SECTION 2: PROPOSED SCHEME DESCRIPTION

Luas Finglas (hereafter referred to as “proposed Scheme”) is not directly connected with, or necessary to the management of any Natura 2000 site. Therefore, the proposed Scheme is subject to the requirements of the AA process.

2.1 Site location

The location of the proposed Scheme extends from Broombridge Luas Station in the south, to the Charlestown area in the north (Figure 2-1). The proposed Scheme passes through the Tolka Valley Park; St Helena's and Farnham green areas; and Mellowes Park within the greater Finglas area. This route also passes over the Royal Canal at Broombridge and the River Tolka within the Tolka Valley Park.

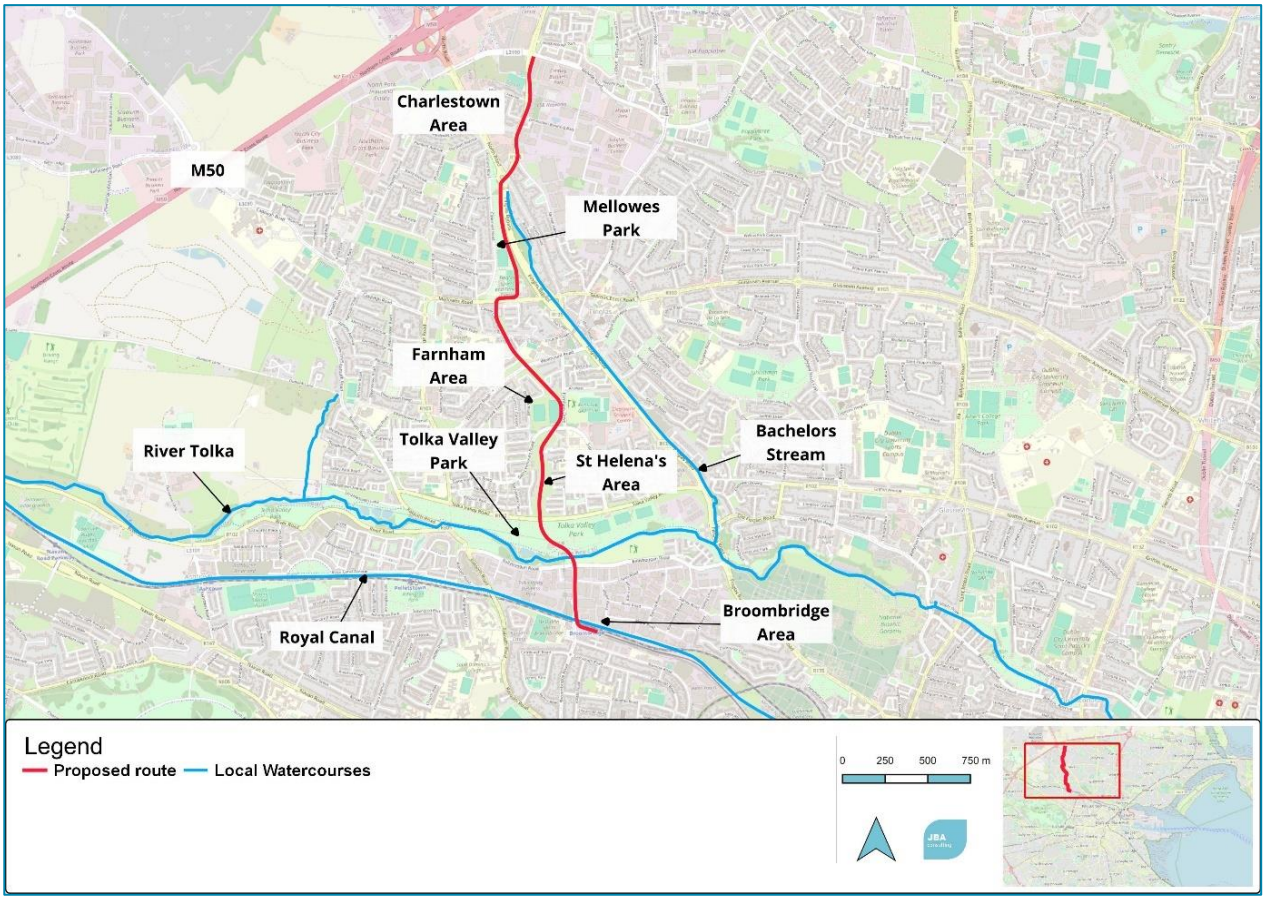

Figure 2-1: Site location and proposed Scheme route (OSM, 2024)

2.2 Proposed Scheme

2.2.1 Outline Scheme Description

The proposed Scheme comprises a high-capacity, high-frequency light rail running from Broombridge to Charlestown, connecting Finglas and the surrounding areas with Dublin’s wider public transport network by providing a reliable, and efficient public transport service to the city centre via Broombridge.

As shown in Volume 4 - Map Figure 1-1, starting from Broombridge, the proposed Scheme travels northwards, crossing the Royal Canal and the Maynooth railway line adjacent to Broome Bridge. It then runs adjacent to the east of Broombridge Road and the Dublin Industrial Estate. It then crosses the Tolka Valley Park before reaching the proposed St Helena’s Stop and then proceeds northwards towards the proposed

Luas Finglas Village Stop. From here, the route passes through a new corridor created within the Finglas Garda Station car park, making its eastern turn onto Mellowes Road. The route then proceeds through Mellowes Park, crossing Finglas Road, towards the proposed St Margaret's Road Stop. Thereafter, the proposed line continues along St Margaret's Road before reaching the terminus Stop proposed at Charlestown.

The proposed Scheme has been designed to integrate with the existing and future transport network, providing connections with bus services at all new Stops, mainline rail services at Broombridge, and a Park & Ride facility to intercept traffic on the N/M2. In addition, the proposed Scheme through the inclusion of integrated cycle lanes and cycling infrastructure sets out to facilitate multimodal "cycle-light rail transit (LRT) trips" as a key aspect of the Luas Finglas scheme.

The proposed Scheme will comprise a number of principal elements as outlined in Table 2-1 and Table 2-2. A full description of the proposed Scheme is provided in the following chapters of this EIAR:

- Chapter 1 (Introduction);
- Chapter 5 (Description of the proposed Scheme); and
- Chapter 6 (Construction Activities).

Table 2-1: Overview of the Key Features of the proposed Scheme

Scheme Key Features	Outline Description
Permanent Scheme Elements	
Light Rail Track	3.9km extension to the Luas Green Line track from Broombridge to Finglas (2.8km of grass track, 700m of embedded track and 360m of structure track)
Depot Stabling Facility	A new stabling facility (with stabling for eight additional LRVs) will be located just south of the existing Broombridge terminus, as an extension of the Hamilton depot area.
Luas Stops	Four Stops located at: St Helena's, Finglas Village, St Margaret's Road and Charlestown to maximise access from the catchment area including the recently re-zoned Jamestown Industrial Estate.
Main Structures	Two new Light Rail Transit (LRT) bridges will be constructed as part of the proposed Scheme: a bridge over the River Tolka within the Tolka Valley Park and a bridge over the Royal Canal and the Iarnród Éireann (IÉ) railway line at Broombridge. A number of existing non-residential buildings shall be demolished to facilitate the proposed Scheme. In addition, the existing overbridge at Mellowes Park will be demolished.
At Grade Signalised Junctions	10 at grade signalised junctions will be created at: Lagan Road, Ballyboggan Road, Tolka Valley Road, St. Helena's Road, Wellmount Road, Cappagh Road, Mellowes Road, North Road (N2), McKee Avenue, Jamestown Business Park entrance. Note: The junction at Charlestown will be reconfigured but does not have a LRT crossing.
Uncontrolled Crossings	13 at grade uncontrolled crossings (11 pedestrian / cycle crossings and two local accesses located at: Tolka Valley Park, St Helena's, Farnham pitches, Patrickswell Place, Cardiff Castle Road, Mellowes Park, St Margarets Road, and ESB Networks.
Cycle Facilities	Cycle lanes are a core part of the proposed Scheme in order to facilitate multimodal "cycle-LRT trips". Approximately 3km of segregated cycle lanes and 100m of non-segregated cycle lanes are proposed along the route. Covered cycle storage facilities will be provided at Broombridge Terminus, Finglas Village Stop and St Margaret's Road Stop and within the Park & Ride facility. "Sheffield" type cycle stands will be provided at all stop locations.
Power Substations	Two new traction power substations for the proposed Scheme will be located near Finglas Village Stop behind the existing Fire Station, and near the N2 junction before St Margaret's Road Stop where the current spiral access ramp to the pedestrian overbridge is located.

Scheme Key Features	Outline Description
	A third substation is required for the Park & Ride facility.
Park & Ride Facility	A new Park & Ride facility, with e-charging substation, located just off the M50 at St Margaret's Road Stop will be provided with provision for 350 parking spaces and secure cycle storage to facilitate multimodal "cycle-LRT trips". The building will feature photovoltaic (PV) panel roofing and is the location for an additional radio antenna. This strategic Park and Ride facility will intercept traffic on the N/M2, before congestion begins to form.
Temporary Scheme Elements	
Construction Compounds	There will be three principal construction compounds, two located west of Broombridge Road and one located at the northern extents of Mellowes Park. In addition, there are other secondary site compound locations for small works/storage. Details can be found in Volume 2 - Chapter 6 (Construction Activities) of this EIAR.

Table 2-2: Summary of New Bridges of the proposed Scheme

Identity	Location	Description
Royal Canal and Rail Bridge	Approximately 10m east of the existing Broome Bridge and then continuing north, parallel with Broombridge Road on its east side	The proposed bridge is an eight-span structure consisting of two main parts: a variable depth weathering steel composite box girder followed by a constant depth solid concrete slab. The bridge has the following span arrangement: 35 + 47.5 + 30 + 17 + 3x22 + 17m. Steel superstructure extends over the first three spans. The bridge deck is continuous over the full length of 212.5m and has solid approach ramps at both ends.
Tolka Valley Park Bridge	Approximately 30m west of the existing Finglaswood Bridge	A three-span structure with buried end spans, thus appearing as a single span bridge. End spans as well as part of the main span consist of post-tensioned concrete variable depth girder, the central section of the main span is a suspended weathering steel composite box girder. The overall length of the bridge is 65m with spans 10m, 45m, 10m.

2.2.2 Proposed Site Drainage Details

The drainage design is based on a number of principles, as set out the accompanying EIAR Volume 5 - Appendix A10.5 (Drainage Design Basis), and summarised below:

- Where possible SuDS based systems have been used to dispose of surface water runoff generated by the proposed development;
- To alleviate pressure on the existing drainage networks in the vicinity of the scheme through the use of attenuation systems, SuDS systems and changing of hardstanding areas to grassed areas;
- Outfall rates from the attenuation areas were based on greenfield and brownfield assessments;
- It was a design objective to minimise health and safety risks of construction and maintenance personnel wherever possible in accordance with the Principles of Prevention; and
- The design has taken into the consideration the sensitive habitats which are impacted by the proposed route, the River Tolka, the Royal Canal, and Integrated Constructed Wetland.

Where feasible, drainage features incorporating SuDS have been used. The design of these SuDS features is in accordance with the principles and details outlined in the CIRIA SuDS manual and in the Dublin City Council produced document 'Sustainable Drainage Design and Evaluation Guide 2021'. SuDS provides the dual benefits of controlling flows and treating water quality.

In areas where the catchment is proposed to remain unchanged as no additional impermeable areas are proposed, the design consists of relocating existing gullies (where possible) to new locations.

Attenuation will be provided in the form of filter drains, tree pits and bioretention systems. These SuDS measures allow a level of treatment and/or attenuation to be provided before discharge to the network, reducing the impact on water quality as well as preventing an increase in runoff rates.

The aim of the design has been to reduce the surface water loading on the existing surface water drainage networks in the regions. This has been achieved by adoption of the following techniques:

- Replacement of hardstanding areas with grassed areas: In keeping with the principles of the circular economy, where possible paved areas have been converted to grass. The absorptive capacities of the grass and subsoil cause a reduction in the volume of surface water reaching the existing piped surface water sewers. The grass and subsoil also provide a measure of treatment to the surface water runoff, reducing the quantity of silt and contaminants that enter the piped surface water sewers;
- Provision of bioretention areas: These are SuDS features incorporating grass and planting, and provide attenuation and treatment to surface water runoff;
- Tree Pits: These are SuDS features which provide attenuation and treatment to surface water runoff. The tree pits incorporate soil pits, which promote attenuation and treatment;
- Online Storage: Where necessary, online storage is provided in the form of oversized attenuation pipes which incorporate flow control devices; and
- Attenuation Pond: An attenuation pond has been proposed adjacent to the ICW (Integrated Constructed Wetlands). This will provide attenuation and treatment to the surface water from the Luas trackbed drainage system and connecting filter drains.

2.2.3 Construction Activities

The overview of the construction activities listed in Figure 2-2 are divided into two categories, Enabling Works and Main Works activities.

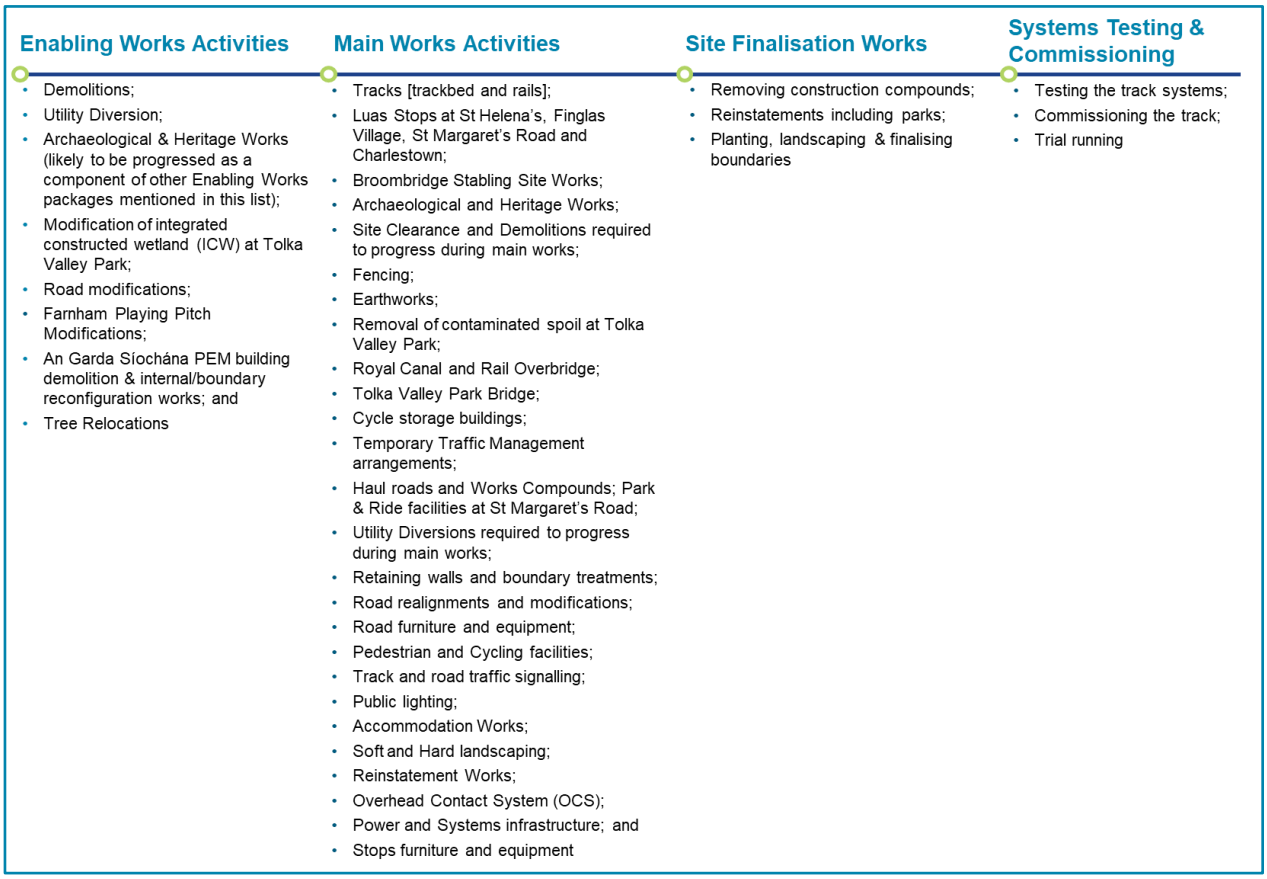

Figure 2-2: Proposed Construction Activities

2.2.4 Proposed Earthworks / Excavations

The proposed Scheme has been divided in large-scale construction areas as well as smaller-scale sections. These divisions along with their respective local area descriptions can be viewed in Table 2-3 below.

Table 2-3: Areas, sections and their respective local area descriptions

Area	Section No.	Section Description
30	S30.1	Broombridge Stabling Site
31	S31.1	Broombridge to Tolka Valley Park
	S31.2	Tolka Valley Park Bridge
	S31.3	Tolka Valley Park to Tolka Valley Road [overlapping Section 31.2]
32	S32.1	Tolka Valley Road to St Helana's Road and St Helena's Stop
	S32.2	St Helena's Road to Cardiff Castle Road
	S32.3	Finglas Village and Finglas Village Stop
33	S33.1	Mellowes Park
	S33.2	R135/R104 junction
	S33.3	St Margaret's Stop
	S33.4	St Margaret's Road and Charlestown Terminus

An overview of the earthwork activities within each construction area, including excavation depths are displayed in Table 2-4 below.

Table 2-4: Overview of earthwork activities within construction areas

Area	Overview of Earthwork Activities
30	Area 30 generally follows the existing site area, however there is a localised depression of up to 2m located towards the rear (northern end) of the former industrial building (now demolished) to be filled and levelled. The fill material will be sourced from the valley areas of the site in Area 32. Local roads will be used to transfer this material.
31	In Area 31, the elevations follow the proposed structure levels and the existing Broombridge Road tie-in levels. Further north, within Tolka Valley Park, the proposed alignment navigates between two of the mounded landforms associated with the historic landfills once operated within the park with cut and fill operations required. The two plateaus situated either side are approximately 4-5m above the proposed alignment. Unsuitable materials will be disposed directly to a suitably licenced landfill.
32	In Areas 32 the track alignment closely follows the existing ground levels with maximum cut and fill ranges up to 1m. The earthworks activities to comprise excavation of a box section for the track form and reinstatement with aggregate materials.
33	In Area 33 the track alignment closely follows the existing ground levels with maximum cut and fill ranges up to 1m. The earthworks activities to comprise excavation of a box section for the track form and reinstatement with aggregate materials.

2.2.5 Construction Duration

The construction programme for the proposed Scheme is approximately 1 year of Enabling Works contracts, with the Main Works of the proposed Scheme including testing and commissioning anticipated to take approximately 3.5 years to complete. The total construction timeline for the proposed Scheme is expected to take approximately 4.5 years to complete.

2.3 Zone of Influence

The proposed Scheme will primarily impact the area within its site boundary, but a wider zone of influence is used for impacts relating to surface water, groundwater, land and air source-receptor-impact pathways (OPR, 2021).

The Zone of Influence is based on a judgement of the likely extent of the ecological impacts on identify Natura 2000 sites. For each of these sites, the QIs and SCIs and their associated SSCOs were identified, and the possibility of likely significant effects was determined by a combination of location, ecological and hydrological connectivity, sensitivity of receptor and magnitude of the source of impact.

In relation to terrestrial habitats, impacts will be limited to the lands within the site boundary of the proposed Scheme, as well as the immediate surrounding environs (e.g., overshading and soil; root compaction and changes to local hydrological regimes).

Surface water hydrological connections (e.g., canals, wetlands and rivers) are often the most far-reaching impacts due to their lotic or semi-lotic nature. It becomes increasingly difficult to precisely predict the likely significance of adverse water-borne pollutants as they travel downstream from the pollution point source, given potential dilution and retention factors along the course of the impacted watercourse. Under the precautionary principle any designated sites (South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; Howth Head SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA), QI habitats or QI / SCI species (flora and fauna) located downstream of the watercourses which pass through the footprint of the proposed Scheme, namely the River Tolka and Royal Canal, will be considered to be within the hydrological ZoI of this scheme.

In regard to groundwater and groundwater-to-surface water connections, the ZoI is largely determined by the site's underlying bedrock, the soil /sub-soil permeability, and the characteristics of the underlying aquifer(s). The underlying bedrock of the proposed Scheme is comprised of dark grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. This bedrock is largely overlain with limestone till, with smaller linear pockets of limestone gravels and alluvial sediments (particularly within the Tolka Valley Park). There is generally a low sub-soil permeability throughout the boundary of the proposed Scheme (GSI, 2024). As result of the above characteristics the site's aquifer vulnerability status ranges from 'Moderate' to 'Rock at or near Surface or Karst', with the more vulnerable areas located within historic and existing river / stream valleys. The aquifer within the underlying bedrock is considered to be locally important, with moderate productivity, though only in local zones. Therefore, the aquifer has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. Generally, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres (GSI, 2024). Therefore, the groundwater ZoI will be set to 300m given the characteristics of underlying aquifer.

Regarding the groundwater-to-surface water impact pathway, the characteristic of the underlying aquifer means it is likely to rapidly discharge to the nearby watercourses, i.e., the River Tolka and Bachelors Stream (GSI, 2024). Additionally, while earthworks within Tolka Valley Park may lead to the disruption of potentially toxic materials within the historic landfill, which may go enter the ground--to-surface water pathway. Therefore, the groundwater-to-surface water ZoI will also be set to 300m, with the addition of downstream surface water hydrological connections.

In respect to ZoI for air pollution (emissions and dust), QIs / SCIs within a 250m buffer zone of the development were considered as per the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (IAQM, 2024), including ex-situ foraging habitats utilised by QI and SCI faunal species associated with local Natura 2000 sites.

In relation to physical (vibration and clearance works); audible and visual disturbance, SCI wintering bird species will be considered on a species-by-species basis. A 400m ZoI disturbance buffer accounts for the most sensitive SCI migrant wintering bird species from the South Dublin Bay and Tolka Estuary SPA; North Bull Island SPA; Baldoyle Bay SPA; and North-West Irish Sea SPA (e.g., Curlew and Light-bellied Brent Goose) which visit the suitable ex-situ foraging habitats within and adjacent to the proposed Scheme, which may be subject to habitat loss or degradation, as well as disturbance (Cutts et al, 2013).

SECTION 3: EXISTING ENVIRONMENT

3.1 Baseline conditions

The proposed Scheme area is comprised of a wide range of habitats, including artificial urban landscapes, amenity grasslands, dry meadows, scattered tree and parkland, mixed broadleaved and riparian woodlands, swamps, marsh, hedgerows, treelines and scrub; as well as the Royal Canal and River Tolka. Updates to the habitat mapping noted during subsequent ecological survey have been incorporated into the sub-section below. Luas Team Ecologists have been present at the site regularly since 2021 to 2024 when surveys have been undertaken. The last site visit made by an ecologist for this report was in August 2024. Therefore, it is considered this data is current. Descriptions of habitats and associated species are provided in the sub-sections below.

3.2 Habitats

A list of habitats recorded during the ecological habitat survey is listed in Table 3-1 below and are presented in detail in the following sections. Habitat Maps are provided below in Appendix B. The table below also contains a heading section for Natura 2000 sites; Annex I habitats and QI / SCI species which are linked with specific Fossitt habitats through their habitat utilisation in the case of faunal QIs / SCIs; and hydrological linkages downstream (designated site, Annex I habitats, and QI / SCI species). These linkages have been identified from desktop data and/or field survey observations.

Table 3-1: List of habitats (Fossitt Classification) recorded within and adjacent to the proposed Scheme, with linked Annex I habitats and QI / SCI species

Fossitt Habitat	Fossitt Code	Linked Annex I Habitats & QI / SCI Species
Stone walls and other stonework	BL1	-
Buildings and artificial surfaces	BL3	-
Other artificial lakes and ponds	FL8	Cormorant (Utilisation) Black-headed Gull (Utilisation) Herring Gull (Utilisation)
Reed and large sedge swamps	FS1	-
Tall-herb swamps	FS2	Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] (Potential)
Depositing / lowland rivers	FW2	South Dublin Bay and River Tolka Estuary SPA - SCI bird species (Hydrological) North Bull Island SPA - SCI bird species (Hydrological) South Dublin Bay SAC – QI Habitats (Hydrological) North Dublin Bay SAC – QI Habitats and Flora (Hydrological) Rockabill to Dalkey Island SAC - QI Habitat and Fauna (Hydrological) North-West Irish Sea SPA - SCI bird species (Hydrological)
Canals	FW3	South Dublin Bay and River Tolka Estuary SPA - SCI bird species (Hydrological) North Bull Island SPA - SCI bird species (Hydrological) South Dublin Bay SAC – QI Habitats (Hydrological) North Dublin Bay SAC – QI Habitats and Flora (Hydrological)

Fossitt Habitat	Fossitt Code	Linked Annex I Habitats & QI / SCI Species
		Rockabill to Dalkey Island SAC - QI Habitat and Fauna (Hydrological) North-West Irish Sea SPA - SCI bird species (Hydrological) Black-headed Gull (Utilisation)
Amenity grassland (improved)	GA2	Light-bellied Brent Goose (Utilisation) Curlew (Utilisation) Black-headed Gull (Utilisation) Common Gull (Utilisation) Lesser Black-backed Gull (Utilisation) Herring Gull (Utilisation)
Marsh	GM1	-
Dry calcareous and neutral grassland	GS1	Herring Gull (Utilisation)
Dry meadows and grassy verges	GS2	-
(Mixed) broadleaved woodland	WD1	-
Scattered trees and parkland	WD5	Black-headed Gull (Utilisation) Herring Gull (Utilisation)
Hedgerow	WL1	-
Treelines	WL2	-
Wet willow-alder-ash woodland	WN6	-
Scrub	WS1	-
Ornamental/non-native shrub	WS3	-

3.2.1 Stone walls and other stonework (BL1)

Linear stonewall habitats are present as part of the stone bridge within Tolka Valley Park. These habitats have a limited floral diversity, only supporting Ivy *Hedera hibernica*; Herb-Robert *Geranium robertianum* and the invasive non-native Butterfly-bush *Buddleja davidii*.

3.2.2 Buildings and artificial surfaces (BL3)

This habitat refers to the man-made structures and surfaces which occur throughout the proposed Scheme area, such as footpaths and bridges, cycle lane, roads, car parks, buildings and the Broombridge Luas Station area.

Feral Pigeon *Columba livia domestica*; Rook *Corvus frugilegus* and House Sparrow *Passer domesticus* were recorded by ecological surveyors utilising structure/buildings for roosting purposes.

3.2.3 Other artificial lakes and ponds (FL8)

This aquatic habitat refers to the pond within Tolka Valley Park, located 40m south-west of the proposed Scheme's site boundary. Located within this pond is a small, wooded islet, which supports nesting waterfowl such as Mute Swan *Cygnus olor* (Figure 3-1). The pond supports White Water-lily *Nymphaea alba*, as well as some fringed by fragmented reedbeds. The species of the fringing reedbeds and wooded islet and are listed in their respective sub-sections (3.2.4 and 3.2.14).

Ecological surveyors noted the following fauna utilising this aquatic habitat - Mute Swan; Cormorant *Phalacrocorax carbo*; Black-headed Gull *Chroicocephalus ridibundus* (SCI species); Herring Gull *Larus argentatus* (SCI species); Tufted Duck *Aythya fuligula*; Mallard *Anas platyrhynchos*; Little Grebe *Tachybaptus ruficollis*; Grey Heron *Ardea cinerea*; Moorhen *Gallinula chloropus*; and Common Frog *Rana temporaria*.

Figure 3-1: Resident Mute Swans - Tolka Valley Park pond

3.2.4 Reed and large sedge swamps (FS1)

The reed and large sedge swamp habitat within the Tolka Valley Park, namely the ICW and fringes of the pond, were largely dominated by Common Reed *Phragmites australis*; with occasional Bulrush *Scirpoides holoschoenus*; Greater Pond Sedge *Carex riparia*; Club Rush; Reed Canary-grass *Phalaris arundinacea*; Yellow Iris *Iris pseudacorus*; Branched Bur-reed *Sparganium erectum*; Wild Angelica *Angelica sylvestris*; Soft Rush *Juncus effusus*; Purple Loosestrife *Lythrum salicaria*; Great Willowherb *Epilobium hirsutum;* and Hedge Bindweed *Calystegia sepium*. This habitat also fringes sections of the Tolka Valley Park pond.

Chaffinch *Fringilla coelebs*; Reed Bunting *Emberiza schoeniclus* and Bullfinch *Pyrrhula pyrrhula*; and Brown Hawker dragonfly *Aeshna grandis* were also recorded utilising this wetland habitat.

3.2.5 Tall herb swamp (FS2)

The northern bank of the Royal Canal supports a strip of high-quality, tall herb swamp habitat (Figure 3-2). The floral community of this habitat was typically comprised of Meadowsweet *Filipendula ulmaria*; Yellow Iris; Hedge Bindweed; Nettle *Urtica dioica*; Creeping Bent *Agrostis stolonifera*; Cow Parsley *Anthriscus sylvestris*; False Oat-grass *Arrhenatherum elatius*; Cuckooflower *Cardamine pratensis*; Remote Sedge *Carex remota*; Cock's-foot *Dactylis glomerata*; Great Willowherb *Epilobium hirsutum*; Field Horsetail *Equisetum arvense*; Red Fescue *Festuca rubra*; Hard Rush *Juncus inflexus*; Water Forget-me-not *Myosotis scorpioides*; Hemlock Water-dropwort *Oenanthe crocata*; Amphibious Bistort *Persicaria amphibia*; Ribwort Plantain *Plantago lanceolata*; Meadow Buttercup *Ranunculus acris*; Creeping Buttercup *Ranunculus repens*; Broad-leaved Dock *Rumex obtusifolius*; Rusty Willow *Salix cinerea* subsp. *oleifolia*; Alexanders *Smyrnium olusatrum*; Common Valerian *Valeriana officinalis*; and Bush Vetch *Vicia sepium*.

Ecological surveyors noted the following fauna utilising this habitat - House Sparrow; Moorhen; Goldfinch *Carduelis carduelis*; Wren *Troglodytes troglodytes*; Brown Hawker; Common Hawker *Aeshna juncea*; Common Darter *Sympetrum striolatum*; Emperor Dragonfly *Anax imperator*; Small White *Pieris rapae*; Speckled Wood *Pararge aegeria*; Small Tortoiseshell *Aglais urticae*; Honeybee *Apis mellifera*; Peacock *Aglais io*; Large White *Pieris brassicae* and Honeybee *Apis mellifera*.

The quality of this wetland habitat links it with the Annex I habitat 'Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels' (6430).

Figure 3-2: Tall-herb swamp along the northern bank of the Royal Canal at Broombridge

3.2.6 Depositing / lowland rivers (FW2)

This habitat classification refers to the River Tolka as it flows through the Tolka Valley Park (Figure 3-3) and a cross-section of the proposed Scheme. The river does not support a particularly wide range of emergent flora, with Common Reed, Reed Canary-grass and Watercress *Nasturtium officinale* appearing infrequently in small, bankside stands; while Branched Bur-reed individuals are rare. There is no instream flora present. The lower banks of the River Tolka are dominated by Bramble *Rubus fructicosus agg*.; Hedge Bindweed; Yorkshire Fog *Holcus lanatus*; and Nettle. Additionally, the high-impact invasive non-native Himalayan Balsam *Impatiens glandulifera* and Japanese Knotweed *Reynoutria japonica* are present on the riverbanks near adjacent to the existing and proposed bridge.

Luas Team Ecologists recorded (directly or indirectly - e.g., Otter spraint) a range of fauna utilising this aquatic habitat including Otter *Lutra lutra*; Mallard; House Martin *Delichon urbicum*; Grey Wagtail *Motacilla cinerea*; Grey Heron; Kingfisher *Alcedo atthis*; Blackbird *Turdus merula*; Dipper *Cinclus cinclus*; Brown Trout *Salmo trutta*; European Eel *Anguilla anguilla*; Three-spined Stickleback *Gasterosteus aculeatus*; Minnow *Phoxinus phoxinus*; and Stone Loach *Barbatula barbatula*; and Brown Hawker.

Additionally, sampling of this habitat revealed the presence of numerous freshwater invertebrates including families / genera of mayfly, caddisfly, amphipod, gastropod, bivalve, beetles, true flies, true worms, and leeches.

Figure 3-3: River Tolka and bridge within the Tolka Valley Park

3.2.7 Canals (FW3)

This aquatic habitat refers to the Royal Canal along the Broombridge section of the proposed Scheme (Figure 3-4). The following aquatic / emergent floral species were recorded within the canal - Greater Water-moss *Fontinalis antipyretica* (on stonework at edge of canal); Reed Sweet-grass *Glyceria maxima*; Mare's-tail *Hippuris vulgaris*; Ivy-leaved Duckweed *Lemna trisulca*; Spiked Watermilfoil *Myriophyllum spicatum*; Yellow Waterlily *Nuphar lutea*; Amphibious Bistort; and Bur-reed (not flowering) *Sparganium* spp. The aquatic invasive non-native species, Canadian Waterweed *Elodea canadensis* and Nuttall's Waterweed *Elodea nuttallii,* were also recorded within the Royal Canal at Broombridge.

Additionally, the red-listed (Vulnerable status) Tassel Stonewort *Tolypella intricata* was recorded (Denyer Ecology, 2022) 180m upstream of the Broombridge road bridge. In this area there was shallow water near the edge of the canal of less than 0.5m deep. In the May 2022 survey, there was abundant Tassel Stonewort within a section of c. 10m length and 1m width. Other vegetation cover was low at this time. The plant was still present in the June 2022 survey but there was slightly higher cover of filamentous algae. A small sample was removed and confirmed microscopically.

In regard to fauna, Otter (spraint/ latrine and holt); Moorhen (breeding pair with chicks); Grey Wagtail; Mallard; Mute Swan; Black-headed Gull (SCI species of Natura 2000 SPA); and Tufted Duck recorded utilising this stretch of the Royal Canal.

Figure 3-4: Royal Canal - Broombridge Section

3.2.8 Amenity (improved) grassland (GA2)

This habitat refers to the small (e.g., maintained roadside grass verges) to large (e.g., playing pitches) amenity grassland areas present throughout much of the proposed Scheme's site boundary. The floral communities in these improved grassland habitats were typically comprised of Perennial Rye-grass *Lolium perenne*; Daisy *Bellis perennis*; Ribwort Plantain; Greater Plantain *Plantago major*; Nettle; Meadow Buttercup; Creeping Buttercup; Red Clover *Trifolium pratense*; White Clover *Trifolium repens*; Lesser Trefoil *Trifolium dubium*; Dandelion *Taraxacum* spp.; Ragwort *Jacobaea vulgaris*; Yorkshire Fog; Smooth Hawk's-beard *Crepis capillaris*; Daffodil *Narcissus* spp.; Self-heal *Prunella vulgaris*; Dock *Rumex* spp.

Additionally, ecological surveyors recorded the following fauna utilising this grassland habitat - Rook; Feral Pigeon; Wood Pigeon *Columba palumbus*; House Martin; Starling *Sturnus vulgaris*; Wren; Robin *Erithacus rubecula*; Black-headed Gull (SCI species of Natura 2000 SPA); Lesser Black-backed Gull *Larus fuscus* (SCI species of Natura 2000 SPA); Herring Gull (SCI species of Natura 2000 SPA); Common Gull *Larus canus* (SCI species of Natura 2000 SPA); Barnacle Goose *Branta leucopsis*; Light-bellied Brent Goose *Branta bernicla hrota* (SCI species of Natura 2000 SPA) and Curlew *Numenius arquata* (SCI species of Natura 2000 SPA); Large White; Small White; and Red-tailed Bumblebee *Bombus lapidarius*.

3.2.9 Marsh (GM1)

The marsh habitat (Figure 3-5), located within the north-east corner of the Tolka Valley wetland, was largely dominated by Yellow Iris *Iris pseudacorus*; with frequent Nettle; and occasional Bulrush; Cow Parsley; Hogweed *Heracleum sphondylium*; Cleavers *Galium aparine*; Great Willowherb; Common Reed; and Butterbur *Petasites hybridus*.

The Luas Team Ecologists also recorded Goldfinch; Wren; White-tailed Bumblebee *Bombus lucorum*; Banded Demoiselle *Calopteryx splendens*; and Honeybee utilising this wetland habitat.

Figure 3-5: Marsh habitat within Tolka Valley Park

3.2.10 Dry calcareous and neutral grassland (GS1)

This habitat classification refers to the dry calcareous / neutral meadow habitat present within the St Helena's green area (Figure 3-6). This grassland boasts a diverse flora range, including species such as Red Fescue; Yorkshire Fog; Cock's-foot; Common Bent *Agrostis capillaris*; Sweet Vernal-grass *Anthoxanthum odoratum*; Soft Brome *Bromus hordeaceus*; Common Sedge *Carex nigra*; Perennial Rye-grass; Germander Speedwell *Veronica chamaedrys*; Red Clover; White Clover; Daisy; Ribwort Plantain; Common Plantain *Plantago major*; Yarrow *Achillea millefolium*; Curly Dock *Rumex crispus*; Clustered Dock *Rumex conglomeratus*; Common Sorrel *Rumex acetosa*; Meadow Buttercup; Rough Hawkbit *Leontodon hispidus*; Chicory *Cichorium intybus*; Lesser Trefoil; Dandelion spp.; Ragwort; Hedgerow Crane's-bill *Geranium pyrenaicum*; Creeping Buttercup; Common Bird's-foot Trefoil *Lotus corniculatus*; Greater Bird's-foot Trefoil *Lotus pedunculatus*; Lady's Bedstraw *Galium verum*; Pignut *Conopodium majus*; Lesser Knapweed *Centaurea nigra*; Common Poppy *Papaver rhoeas*; Red Bartsia *Odontites vernus*; Cornflower *Centaurea cyanus*; Creeping Thistle *Cirsium arvense*; Scarlet Pimpernel *Anagallis arvensis*; Self-heal *Prunella vulgaris*; and Pyramidal Orchid *Anacamptis pyramidalis*.

Ecological surveyors also recorded the following fauna utilising this dry meadow habitat - House Sparrow; Feral Pigeon; Magpie *Pica pica*; Wood Pigeon; Herring Gull (SCI species of Natura 2000 SPA); Starling; Brown Hawker; Honeybee; Cranefly *Tipula paludosa*; Common Grasshopper *Omocestus viridulus*; Small Tortoiseshell; Meadow Brown *Maniola jurtina*; Small White; Honeybee; Common Carder-bee *Bombus pascuorum*; Moss Carder-bee *Bombus muscorum*; Red-tailed Bumblebee and White-tailed Bumblebee.

Figure 3-6: St Helena's dry meadow habitat

3.2.11 Dry meadow and grassy verges (GS2)

This habitat classification refers to the dry meadows and grassy verge/meadow strips, which are present in the northern and southern sections of the proposed Scheme. These dry grassland habitats typically contained flora species such as Yorkshire Fog; Perennial Rye-grass; Red Fescue; Crested Dog's-tail *Cynosurus cristatus*; Common Bent; Soft Brome; Ribwort Plantain; Common Poppy; Meadow Foxtail *Alopecurus pratensis*; White Clover; Common Plantain; Self-heal; Red Clover; Lesser Trefoil; Cornflower; Lavender *Lavandula* spp.; False Oat-grass; Yarrow; Ox-eye Daisy *Leucanthemum vulgare*; Meadow Buttercup; Silverweed *Potentilla anserina*; Creeping Buttercup; Bush Vetch; Curly Dock; Broad-leaved Dock *Rumex obtusifolius*; Wild Teasel *Dipsacus fullonum*; Lesser Stitchwort *Stellaria holostea*; Dandelion spp.; Hogweed; Cleavers; Creeping Thistle; Spear Thistle *Cirsium vulgare*; Cock's-foot; Daisy; Smooth Sowthistle *Sonchus oleraceus*; Cut-leaved Crane's-bill *Geranium dissectum*; Creeping Cinquefoil *Potentilla reptans* and Bee Orchid *Ophrys apifera*.

Ecological surveyors recorded the following faunal species utilising these dry meadow and grass verge habitats - Goldfinch; House Sparrow; Magpie; Meadow Pipit *Anthus pratensis*; Buzzard *Buteo buteo*; Wood Pigeon; Small Tortoiseshell, Meadow Brown and Peacock butterflies; Wasp *Vespula* spp.; Common Carder-bee; and Common Blue Damselfly *Enallagma cyathigerum*.

Figure 3-7: Dry meadow grassland strips within the Tolka Valley Park

3.2.12 (Mixed) broadleaved woodland (WD1)

This habitat classification refers to woodland strip east of Mellowes Park and the small sub-section of mixed deciduous woodland at the southern extent of the Tolka Valley Park section, by the proposed bridge crossing (Figure 3-8). These mixed woodland habitats comprised of the following canopy and understorey flora - Sycamore *Acer pseudoplatanus*; Hawthorn *Crataegus monogyna*; Hornbeam *Carpinus betulus*; Purple Sycamore *Acer pseudoplatanus f. purpureum*; Field Maple *Acer campestre*; Scots Pine *Pinus sylvestris*; Silver Birch *Betula pendula*; Black Poplar *Populus nigra*; Alder *Alnus glutinosa*; Goat Willow *Salix caprea*; Bramble; Nettle; Cleavers; Ivy; Yorkshire Fog; and Cow Parsley; and the invasive non-native Cherry Laurel *Prunus laurocerasus*.

Jackdaw *Corvus monedula*; Wood Pigeon; Goldcrest *Regulus regulus*; Speckled Wood and Orange Tip butterflies *Anthocharis cardamines* were all noted by surveyors to be utilising this woodland habitat.

Figure 3-8: A small mixed broad-leaved woodland patch adjacent to the Tolka Valley Park bridge

3.2.13 Scattered trees and parkland (WD5)

This habitat refers to the areas with scattered tree / canopy cover within the green amenity areas present with the proposed Scheme. Juvenile and mature tree species recorded in this habitat included Small-leaved Lime *Tilia cordata*; Ash; Purple Sycamore; Sycamore; Goat Willow; Rowan *Sorbus aucuparia*; Silver Birch; Field Maple; Hazel; Whitebeam *Sorbus aria*; Hawthorn; Wild Cherry; Beech; Horse Chestnut *Aesculus hippocastanum*; and the invasive non-native Cherry Laurel. The ground flora was typically comprised of Perennial Ryegrass; Daisy; White Clover; Red Clover; Shepherd's Purse *Capsella bursa-pastoris*; Cock's-foot; Dandelion spp.; Ragwort; Creeping Buttercup; Groundsel *Senecio vulgaris*; Common Mouse-ear *Cerastium fontanum*; Silverweed; Ribwort Plantain; Bush Vetch; Cut-leaved Crane's-bill; Yarrow and Germander Speedwell.

Ecological surveyors also recorded Herring Gull (SCI species of Natura 2000 SPA); Black-headed Gull (SCI species of Natura 2000 SPA); Wood Pigeon; Magpie; Jackdaw; Collared Dove; Greenfinch *Chloris chloris*; Chiffchaff *Phylloscopus collybita*; Blue Tit; Blackcap *Sylvia atricapilla*; Blackbird; Treecreeper *Certhia familiaris*; and Hooded Crow; Large White; Small White; Speckled Wood; and Wasp spp. inhabiting this mixed tree and grassland habitat.

Figure 3-9: Scattered trees and parkland within Mellowes Park

3.2.14 Hedgerows (WL1)

A hedgerow runs along the northern boundary of the Royal Canal east of the Broombridge Road bridge. This linear habitat's floral composition was made up of Alder; Ash; Sycamore; Elder; Bramble; Great Willowherb; Creeping Thistle; Hedge Bindweed; Ivy; and the invasive non-native Butterfly-bush.

The following fauna were recorded within these linear habitats - House Sparrow and White-tailed Bumblebee.

3.2.15 Treelines (WL2)

A number of urban street and parkland boundary trees are present throughout the boundaries of the proposed Scheme. Small-leaved Lime *Tilia cordata*; Wild Cherry *Prunus avium*; Hornbeam; Purple Sycamore; Hawthorn; Pedunculate Oak *Quercus robur*; Ash *Fraxinus excelsior*; Beech *Fagus sylvatica*; Black Poplar *Populus nigra*; Grey Willow *Salix cinerea*; White Willow *Salix alba*; Cottonwood *Populus* spp.; and Hazel *Corylus avellana*; while the understorey species (where present) mirror those listed in the amenity grassland sub-section above.

The following fauna were recorded within these linear habitats - Wood Pigeon; Collared Dove *Streptopelia decaocto*; Hooded Crow *Corvus cornix*; and Blue Tit *Cyanistes caeruleus*.

Figure 3-10: Treeline habitat running along Patrickswell Place

3.2.16 Wet willow-alder-ash woodland (WN6)

A small strip of wet willow-alder-ash woodland lines sections of the northern and southern banks of the River Tolka within and adjacent to the proposed site boundaries. Additionally, a short section of the south bank woodland strip is also maturing into a wet willow-alder-ash woodland. This wet woodland habitat is comprised of the following canopy and understorey flora - Alder; Ash; Grey Willow; Osier *Salix viminalis*; Silver Birch; Cow Parsley; Bramble; Yorkshire Fog; Creeping Buttercup; Hogweed; Cleavers; Nettle; Ivy; Dock spp.; Hedge Bindweed; and Butterbur. A small stand of the high-impact invasive non-native species, Himalayan Balsam *Impatiens glandulifera*, was recorded within this habitat.

Ecological surveyors noted Dunnock *Prunella modularis*; Long-tailed Tit *Aegithalos caudatus*; Blackcap; Song Thrush *Turdus philomelos*; Willow Warbler *Phylloscopus trochilus*; Spotted Flycatcher *Muscicapa striata*; Bullfinch; Speckled Wood; and Common Hawker dragonfly utilising this wet woodland habitat.

Figure 3-11: Semi-established wet willow-alder-ash woodland strips line the River Tolka's banks

3.2.17 Scrub (WS1)

Scrub habitat mainly exists in sporadic strips and patches within the Broombridge and Tolka Valley Park areas of the proposed Scheme. The flora community of this habitat is comprised of Bramble; Hawthorn; Dock spp.; Dandelion spp.; Bush Vetch; Nettle; Hedge Bindweed; Dogwood *Cornus* spp.; Ribwort Plantain; False Oatgrass; Cock's-foot; Field Mustard *Brassica rapa*; Yorkshire Fog; and the invasive non-native Butterfly-bush *Buddleja davidii*; as well as Willow spp., Silver Birch, Ash, and Alder saplings.

Ecological surveyors recorded Dunnock; Wren; Great Tit *Parus major*; Linnet *Linaria cannabina* and House Sparrow utilising this habitat type.

3.2.18 Ornamental / non-native shrub (WS3)

This habitat classification refers to a small, roadside section of dominated by non-native ornamental shrub planting along the western pedestrian of St. Margaret's Road, which contains invasive Cherry Laurel; Sycamore saplings and *Cotoneaster spp.; as well as* Dogwood; Perforate St. John's-wort *Hypericum perforatum*; immature Elder *Sambucus nigra* and Rowan.

3.2.19 Protected Habitats

As mentioned in sub-section 3.2.5, the majority of the tall-herb swamp habitat grades as a good example of the protected Annex I habitat 'Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels' (6430). However, as this Annex I habitat is not a QI, nor physically present within any of the Natura 2000 sites within the proposed Scheme's ZoI, nor a QI of any Natura 2000 sites within County Dublin, the potential impacts and mitigations measures for this protected habitat will be addressed within the accompanying EIAR's Biodiversity Chapter (Volume 3 – Chapter 9).

3.3 Protected Flora

The red-listed (Vulnerable status) Tassel Stonewort was recorded by Denyer Ecology (5th May 2022) approximately 180m upstream of the Broombridge road bridge, i.e., the boundary of the proposed Scheme. Additionally, Opposite-leaved Pondweed and Pointed Stonewort were recorded, by Triturus Environmental Ltd, downstream between the 1st and 3rd locks of the Royal Canal in the summer of 2023 (Triturus, 2024). However, these species are not a QI / SCI species of the Natura 2000 sites within the proposed Scheme's ZoI. The accompanying EIAR's Biodiversity Chapter (Volume 3 – Chapter 9) will address the potential impacts and mitigation measures for these red-listed species.

3.4 Protected Fauna

During the ecological surveys, a range of protected fauna were recorded via visual sighting of individuals or observation of scat / spraint / prey remains. These species are protected under the Wildlife Act, 1976 and its amendments, and/or Annexes of the EU Habitats Directive and EU Birds Directive. However, only seven of these species, namely Light-bellied Brent Goose, Black-headed Gull, Curlew; Herring Gull; Lesser Black-backed Gull; Common Gull; and Cormorant, are SCIs of the Natura 2000 sites within the Scheme's ZoI. These seven species will be examined in greater detail in the below sub-section. The remaining protected species (including Otter; other mammals; other birds of conservation concern; amphibians; fish; and invertebrates) will be addressed in the accompanying EIAR's Biodiversity Chapter (Volume 3 – Chapter 9); and will be examined with regard to potential impacts and mitigations measures.

3.4.1 SCI Bird species

Desktop data and initial site visits revealed that seven SCI bird species, namely Light-bellied Brent Goose, Black-headed Gull, Curlew; Herring Gull; Lesser Black-backed Gull; Common Gull; and Cormorant frequented the Tolka Valley Park pond and/or the maintained amenity grassland areas within and adjacent to the boundaries of the proposed Scheme (see Appendix C).

As a part of the desktop study, the Luas Team Ecologists liaised with PhD researcher Tess Handby (University of Exeter), who was monitoring the Light-bellied Brent Goose flocks of the wider area of Dublin city across two winter seasons (2018/19 and 2019/20). The data produced from the study highlighted the occurrence of a Light-bellied Brent Goose population associated with the green amenity areas within and adjacent to the proposed Scheme (see Figure 3-12 overleaf). This sub-population of the Light-bellied Brent Goose within the North Bull Island SPA is referred to as the southern population or south-end population in her thesis. This data allowed the Luas Team Ecologists to refine their wintering bird survey efforts to green areas relevant to the proposed Scheme.

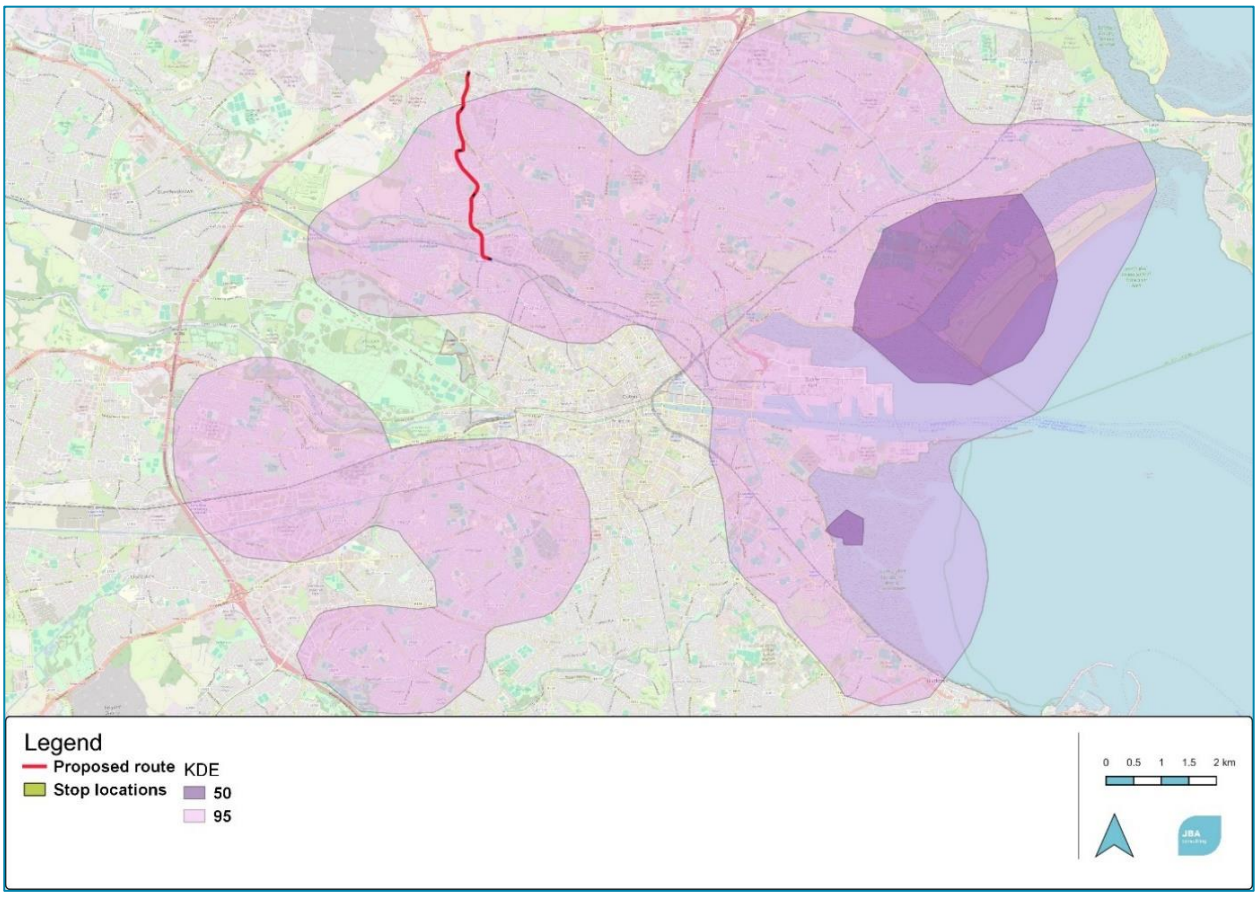

Figure 3-12: Kernel density estimates (KDE) for home range of North Bull Island's southern Light-bellied Brent Goose population. Larger transparent layer is the 95% KDE and smaller, darker layer represents 50% KDE (roosting area) of brent geese (abstracted from Tess Handby PhD - University of Exeter, 2021). (OSM, 2024)

Subsequently, wintering bird surveys (8 per season) were conducted by the Luas Team Ecologists during the optimum survey months (December, January and February) for the 2021-2022; 2022-2023 and 2023-2024 winter periods (totalling at 24 surveys / 96 hours of observation). The focused survey areas for these surveys are displayed in Figure 3-13 overleaf. The resulting data for the SCI bird species is displayed overleaf in Table 3-2; Table 3-3; Table 3-4; Table 3-5; Table 3-6; and Table 3-7.

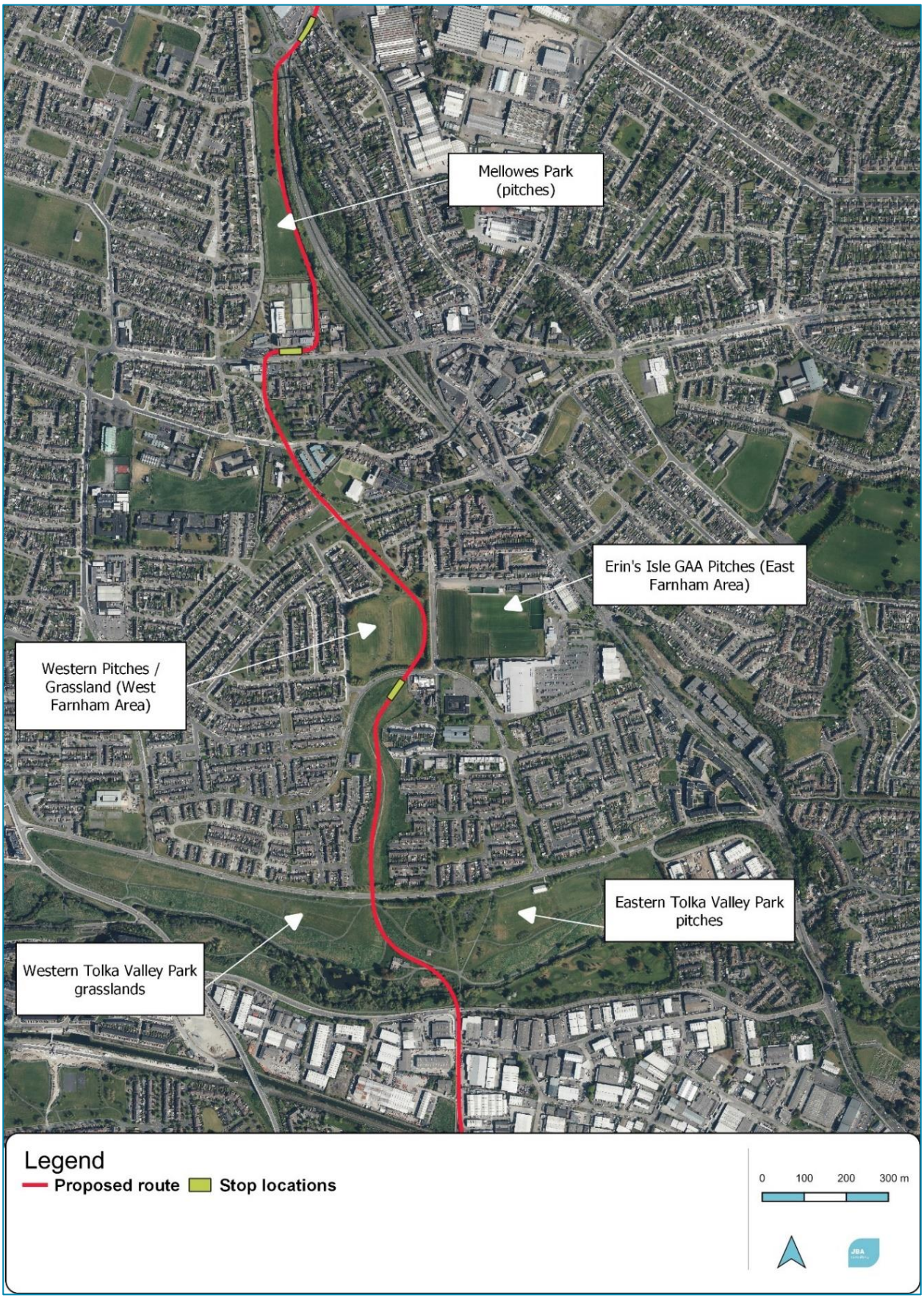

Figure 3-13: Focused survey areas during the wintering bird survey seasons (Bluesky, 2024)

Table 3-2: Flock size and location data for Light-bellied Brent Geese during winter 2021-2022

Date	Time	Flock Size	Location
01/12/2021	09:20	86	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
15/12/2021	09:01	107	Erin's Isle GAA Pitches (Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
05/01/2022	09:10	~600	Erin's Isle GAA Pitches (East Farnham area)
	15:30	~1,000	Erin's Isle GAA Pitches (East Farnham area)
18/01/2022	09:09	~300	Erin's Isle GAA Pitches (East Farnham area)
	15:36	~300	Erin's Isle GAA Pitches (East Farnham area)
27/01/2022	10:08	~325	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
02/02/2022	09:06	~700	Erin's Isle GAA Pitches (East Farnham area)
	10:01	+80 (~780)	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
10/02/2022	*09:43*	*41*	*Western pitch / grassland* (West Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
25/02/2022	*09:23*	*171*	*Western pitch / grassland* (West Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		

Table 3-3: Flock size and location data for Light-bellied Brent Geese during winter 2022-2023

Date	Time	Flock Size	Location
07/12/2022	08:48	163	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
16/12/2022	08:54	~340	Erin's Isle GAA Pitches (East Farnham area)
	14:32	~280	Erin's Isle GAA Pitches (East Farnham area)
	14:40	186	*Western pitch / grassland* (West Farnham area)
05/01/2023	09:01	118	Erin's Isle GAA Pitches (East Farnham area)
	09:04	92	*Western pitch / grassland* (West Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
13/01/2023	08:49	124	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
25/01/2023	09:34	75	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
02/02/2023	09:28	355~	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
17/02/2023	08:56	155	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
28/02/2023	09:00	86	Erin's Isle GAA Pitches (East Farnham area)

Date	Time	Flock Size	Location
	Light-bellied Brent Goose flocks absent during afternoon survey period		

Table 3-4: Flock size and location data for Light-bellied Brent Geese during winter 2023-2024

Date	Time	Flock Size	Location
15/12/2023	09:19	~207	Erin's Isle GAA Pitches (East Farnham area)
	10:35	~345	Erin's Isle GAA Pitches (East Farnham area)
	14:47	121	Erin's Isle GAA Pitches (East Farnham area)
04/01/2024	09:24	5	Erin's Isle GAA Pitches (East Farnham area)
	09:35	37	Erin's Isle GAA Pitches (East Farnham area)
	09:38	49	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
12/01/2024	09:27	71	Erin's Isle GAA Pitches (East Farnham area)
	15:10	147	Erin's Isle GAA Pitches (East Farnham area)
19/01/2024	09:13	35	Erin's Isle GAA Pitches (East Farnham area)
	09:19	28	Western pitch / grassland (West Farnham area)
	09:33	155	Erin's Isle GAA Pitches (East Farnham area)
	10:40	~255	Erin's Isle GAA Pitches (East Farnham area)
	10:55	~255	*Western pitch / grassland* (West Farnham area) *[*Flock at Erin's Isle GAA Pitches moved to this location after disturbance]*
	Light-bellied Brent Goose flocks absent during afternoon survey period		
02/02/2024	09:04	24	Erin's Isle GAA Pitches (East Farnham area)
	10:34	42	Erin's Isle GAA Pitches (East Farnham area)
	14:51	48	*Western pitch / grassland* (West Farnham area)
09/02/2024	08:57	107	Erin's Isle GAA Pitches (East Farnham area)
	14:36	12	Eastern pitch / grassland (West Farnham area)
23/02/2024	08:45	~250	Erin's Isle GAA Pitches (East Farnham area)
	09:00	~300	Erin's Isle GAA Pitches (East Farnham area)
	09:05	~392	Erin's Isle GAA Pitches (East Farnham area)
	10:32	~446	Eastern pitch / grassland (West Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		
27/02/2024	09:01	~238	*Western pitch / grassland* (West Farnham area)
	10:38	~275	Erin's Isle GAA Pitches (East Farnham area)
	Light-bellied Brent Goose flocks absent during afternoon survey period		

Table 3-5: Flock size and location data for Black-headed Gull during winter 2021-2022

Date	Time	Flock Size	Location
01/12/2021	09:00	14	Western Tolka Valley Park grasslands (within 300m disturbance buffer)

Date	Time	Flock Size	Location
	09:22	11	Western pitches / grassland (West Farnham area)
	15:31	56	Erin's Isle GAA Pitches (East Farnham area)
15/12/2021	08:50	15	Eastern pitches- Tolka Valley Park (within 300m disturbance buffer)
	08:52	10	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	08:54	4	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:25	14	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
05/01/2022	08:51	20	Tolka Valley Park eastern pitches
	09:07	43	Erin's Isle GAA Pitches (East Farnham area)
	09:11	10	Western pitches / grassland (West Farnham area)
	09:14	10	Patrickswell Place / Wellmount Parade green area
	09:22	4	Northern section of Mellowes Park
	Black-headed Gull flocks absent during afternoon survey period		
18/01/2022	*Black-headed Gull flocks absent during morning survey period*		
	15:26	29	Tolka Valley Park Pond
27/01/2022	09:39	9	Eastern Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	09:51	41	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:54	10	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:55	22	Western Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	09:56	9	Tolka Valley Park Pond
	10:09	7	Western pitches / grassland (West Farnham area)
	10:10	4	Amenity grassland adjacent to Casement Road
	14:41	16	Eastern pitches- Tolka Valley Park
	14:47	11	Tolka Valley Pitch and Putt
	14:56	24	Tolka Valley Park Pond
02/02/2022	09:13	37	Erin's Isle GAA Pitches (East Farnham area)
	09:14	11	Western pitches / grassland (West Farnham area)
	09:28	131	Eastern pitches - Tolka Valley Park
	09:40	32	Western Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	14:50	19	Eastern pitches - Tolka Valley Park
	15:04	31	Tolka Valley Park Pond
10/02/2022	09:32	33	Eastern pitches - Tolka Valley Park

Date	Time	Flock Size	Location
	09:54	7	Southern section of Mellowes Park
	Black-headed Gull flocks absent during afternoon survey period		
25/02/2022	*09:10*	14	Eastern pitches - Tolka Valley Park
	09:24	21	Western pitches / grassland (West Farnham area)
	09:48	8	Northern section of Mellowes Park
	Black-headed Gull flocks absent during afternoon survey period		

Table 3-6: Flock size and location data for Black-headed Gull during winter 2022-2023

Date	Time	Flock Size	Location
07/12/2022	08:49	9	Western pitches / grassland (West Farnham area)
	08:51	32	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:57	7	Southern section of Mellowes Park
	14:52	4	Eastern Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	15:10	13	Tolka Valley Park Pond
	15:17	12	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
16/12/2022	09:28	18	Tolka Valley Park Pond
	09:55	7	Western pitches / grassland (West Farnham area)
	15:11	14	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
05/01/2023	09:53	5	Tolka Valley Park Pond
	10:12	23	Erin's Isle GAA Pitches (East Farnham area)
	10:15	5	Amenity grassland adjacent to Casement Road
	14:38	41	Eastern Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	15:35	8	Western pitches / grassland (West Farnham area)
13/01/2023	08:58	32	Western pitches / grassland (West Farnham area)
	09:21	64	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:49	5	Tolka Valley Park Pond
	09:50	26	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	10:15	12	Southern section of Mellowes Park
	15:08	61	Erin's Isle GAA Pitches (East Farnham area)
	15:13	5	Western pitches / grassland (West Farnham area)
	15:18	12	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:39	5	Tolka Valley Park Pond

Date	Time	Flock Size	Location
	15:45	10	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
25/01/2023	08:46	49	Erin's Isle GAA Pitches (East Farnham area)
	08:49	26	Western pitches / grassland (West Farnham area)
	09:04	91	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:13	7	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:18	5	Tolka Valley Park Pond
	09:45	5	Southern section of Mellowes Park
	14:57	30	Western pitches / grassland (West Farnham area)
	15:22	25	Tolka Valley Park Pond
02/02/2023	09:28	82	Erin's Isle GAA Pitches (East Farnham area)
	09:43	43	Western pitches / grassland (West Farnham area)
	09:53	90	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	10:05	7	Tolka Valley Park Pond
	15:10	10	Tolka Valley Park Pond
	15:56	5	Southern section of Mellowes Park
17/02/2023	08:56	74	Erin's Isle GAA Pitches (East Farnham area)
	09:16	35	Western pitches / grassland (West Farnham area)
	09:56	51	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	10:00	26	Eastern Tolka Valley Park grasslands (beyond 300m disturbance buffer)
	15:20	6	Southern section of Mellowes Park
	15:28	18	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:50	5	Tolka Valley Park Pond
	15:59	12	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
28/02/2023	09:06	62	Erin's Isle GAA Pitches (East Farnham area)
	09:10	14	Western pitches / grassland (West Farnham area)
	10:19	17	Western Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:06	7	Western pitches / grassland (West Farnham area)
	15:15	4	Southern section of Mellowes Park
	15:30	22	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:39	3	Tolka Valley Park Pond

Date	Time	Flock Size	Location
	15:43	13	Western Tolka Valley Park grasslands (within 300m disturbance buffer)

Table 3-7: Flock size and location data for Black-headed Gull during winter 2023-2024

Date	Time	Flock Size	Location
15/12/2023	09:02	27	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:17	3	Tolka Valley Park Pond
	15:50	5	Southern section of Mellowes Park
04/01/2024	09:14	57	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	09:25	15	Erin's Isle GAA Pitches (East Farnham area)
	09:26	6	*Eastern pitch / grassland* (West Farnham area)
	09:54	6	Tolka Valley Park Pond
	14:52	4	Erin's Isle GAA Pitches (East Farnham area)
	15:05	3	Southern section of Mellowes Park
12/01/2024	09:28	12	Erin's Isle GAA Pitches (East Farnham area)
	09:29	9	Western pitches / grassland (West Farnham area)
	10:02	22	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
19/01/2024	09:14	42	Erin's Isle GAA Pitches (East Farnham area)
	09:17	3	Western pitches / grassland (West Farnham area)
	09:47	10	Tolka Valley Park Pond
	15:49	7	Northern section of Mellowes Park
02/02/2024	09:10	11	Erin's Isle GAA Pitches (East Farnham area)
	09:14	22	Eastern pitch / grassland (Western Farnham area)
	09:50	6	Tolka Valley Park Pond
	10:23	25	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	10:35	17	Erin's Isle GAA Pitches (East Farnham area)
	15:34	9	Southern section of Mellowes Park
09/02/2024	09:01	29	Erin's Isle GAA Pitches (East Farnham area)
	09:20	31	Eastern pitch / grassland (Western Farnham area)
	15:43	23	Western pitches / grassland (West Farnham area)
23/02/2024	09:02	33	Western pitches / grassland (West Farnham area)
	15:27	6	Tolka Valley Park Pond
	15:35	8	Erin's Isle GAA Pitches (East Farnham area)
	15:40	14	Tolka Valley Park Pond
27/02/2024	09:30	49	Western pitches / grassland (West Farnham area)

Date	Time	Flock Size	Location
	09:32	4	Erin's Isle GAA Pitches (East Farnham area)
	09:55	3	Tolka Valley Park Pond
	10:08	15	Eastern Tolka Valley Park grasslands (within 300m disturbance buffer)
	15:01	3	Eastern pitch / grassland (Western Farnham area)
	15:15	4	Tolka Valley Park Pond

3.4.1.1 Light-bellied Brent Goose

During the 2021-2022 winter period, Light-bellied Brent Goose flocks were most frequently recorded at the Erin's Isle GAA pitches (Table 3-2). Flock sizes at this location approximately ranged from approximately 86 - 1000 (5.55% - 64.59% of the North Bull Island SPA population), peaking in early January 2022. The other less frequently utilised green amenity area, the playing pitches west of Farnham Drive (Table 3-3), was only used for foraging purposes by smaller flocks (41 - 171 individuals / 2.64% - 11.04% of the North Bull Island SPA population) of Light-bellied Brent Goose during the month of February 2022.

During the 2022-2023 winter period, Light-bellied Brent Goose flocks were once again most frequently recorded at the Erin's Isle GAA pitches. Flock sizes at this location approximately ranged from 75 - 355 (4.84% - 22.93% of the North Bull Island SPA population), peaking in mid-December and early February, with peak flock sizes notably down from the 2021-2022 flocks. The other less frequently utilised green amenity area, the playing pitches west of Farnham Drive was utilised by smaller flocks comprising of 92 - 186 (5.94% - 12.01% of the North Bull Island SPA population) individuals. The peak total numbers for Light-bellied Brent Goose present within the disturbance buffer of the Scheme at any one time was approximately 486 (31.39% of the North Bull Island SPA population) on 16th December 2022, with two flocks present, one at Erin's Isle GAA and another at western playing pitches.

The 2023-2024 winter period data specified that the Light-bellied Brent Goose flocks most frequently utilised the Erin Isle GAA pitches. Flock sizes at this location approximately ranged from 5 - 392 (0.32% - 25.32% of the North Bull Island SPA population), peaking in late February 2024, with peak flock sizes notably down again from the 2021-2022 flocks. Following the Erin's Isle grounds (Figure 3-14), their next preferred grassland to forage was the western pitch (Figure 3-15) within the west Farnham area, which was then followed by the eastern pitch (Figure 3-16) in the same area. The western pitch hosted flocks of approximately 28 – 255 Light-bellied Brent Goose (1.80% - 16.47% of the North Bull Island SPA population), with flock size peaking in mid-January 2024. The eastern pitch hosted two Light-bellied Brent Goose flocks, one flock of 12 individuals and another totalling approximately 446 (0.77% - 28.81% of the North Bull Island SPA population), with flock size peaking in late February 2024.

The 2023-2024 winter period was the first recorded instance of the Light-bellied Brent Goose flocks utilising the eastern pitch in the west Farnham area. The flocks were present on this pitch on two occasions, the first of which was a small flock of 12 geese foraging after being disturbed on the adjacent western pitch (9th February 2024). The second occasion also involved the disturbance of their initial foraging area (Erin's Isle GAA), which saw the largest of flock of the winter 2023-2024 period (~446) forage on the eastern pitch within the west Farnham area, which had been freshly mown (23rd February 2024 -Figure 3-16). Given that there were no disturbance sources at the western pitch within the west Farnham area at this time, it would appear that the flock tolerated higher levels of disturbance from vehicle and pedestrian traffic in order to gain access to a higher quality foraging area. This highlights the urban disturbance tolerance of the Light-bellied Brent Goose flocks which frequent this area, an observation which is in line with the findings presented within Handby (2022) PhD thesis, which examined patterns of urban habitat use in Light-bellied Brent Goose populations within Co. Dublin.

Regarding the Tolka Valley Park and Mellowes Park survey areas, Light-bellied Brent Goose flocks were only ever recorded flying over Tolka Valley Park enroute to other grazing sites; while surveyors did not record any Light-bellied Brent Goose flocks foraging or commuting over Mellowes Park.

Figure 3-14: Light-bellied Brent Goose and Black-headed Gull flocks grazing / foraging at Erin's Isle GAA pitch (East Farnham area)

Figure 3-15: Light-bellied Brent Goose and Black-headed Gull flocks grazing / foraging at the western

Figure 3-16: Light-bellied Brent Goose flock grazing on the freshly mown eastern pitch / amenity grassland (West Farnham area)

3.4.1.2 Black-headed Gull

During the 2021-2022 winter period, Black-headed Gull flocks were most commonly recorded within the Tolka Valley Park's amenity grasslands / playing pitches, though were also present at the Farnham and Mellowes amenity grasslands / playing pitches, as well as small grassland areas at Casement Road, Patrickswell Place and the Tolka Valley Park pond. Individual flock sizes peaked at 131 (5.96% of the North Bull Island SPA population) individuals in Tolka Valley Park (eastern playing pitches), though flock sizes were recorded most regularly between 10 - 41 individuals (0.45% - 1.86% of the North Bull Island SPA population). Combined flock sizes within an area peaked at 163 individuals (7.42% of the North Bull Island SPA population) in Tolka Valley Park on 2nd February 2022. Barring the single record of a 131 Black-headed Gull flock, flock sizes did not vary notably in size throughout the 2021-2022 winter period.

During the 2022-2023 winter period, Black-headed Gull flocks were most commonly recorded within the Erin's Isle GAA pitches and the Tolka Valley Park's eastern amenity grasslands / playing pitches. Small flocks were also noted in the Farnham and Mellowes amenity grasslands / playing pitches, as well as the grassland areas at Casement Road and Tolka Valley Park pond. Black-headed Gull flock sizes ranged from 3 - 91 (0.13% - 4.14% of the North Bull Island SPA population), and were not particularly variable across locations, nor were there notable monthly variations across the winter period. Combined Black-headed Gull flock sizes within an area peaked at 140 individuals (6.37% of the North Bull Island SPA population) in Tolka Valley Park on 2nd February 2023.

The 2023-2024 winter period saw Black-headed Gull flocks most commonly sighted within the Erin's Isle GAA pitches (East Farnham) and the two pitches within the Farnham green area (West Farnham). Other locations where flocks were noted included Mellowes Park and Tolka Valley Park (pond, and the eastern and western grasslands). Black-headed Gull flock sizes ranged from 3 – 57 (0.13% - 2.59% of the North Bull Island SPA population), and were not notably variable across locations, nor were there notable monthly variations across the 2023-2024 winter period. Combined Black-headed Gull flock sizes within an area peaked at 60 individuals (2.73% of the North Bull Island SPA population) in Farnham area on the 9th of February 2024.

3.4.1.3 Curlew

Curlew were recorded during the 2022-2023 winter period; three individuals were noted foraging within the Erin's Isle GAA pitches on 16th December 2023. It is important to note that other desktop study data (Irish Birding, 2023) shows that flocks up to 20 individuals (2.16% of the wintering North Bull Island SPA population) have been recorded within the Erin's Isle GAA pitches, with flocks of up 50 seen flying within the general vicinity of the pitches as well.

3.4.1.4 Herring Gull

Herring Gull flocks were most commonly recorded within Erin's Isle GAA pitches during the 2021-2022, 2022-2023 and 2023-2024 winter periods. Herring Gull flock sizes were generally small, most commonly occurring between 2-8 individuals, with an occurrence peak of 18 individuals.

3.4.1.5 Common Gull, Lesser Black-backed Gull and Cormorant (isolated / incidental recordings)

Furthermore, small numbers of the SCI species, Common Gull (six, December 2021; three, December 2023; three, January 2024), Lesser Black-backed Gull (two, July 2023 - incidental recording outside of winter period), Cormorant (one, May 2021 - incidental recording outside of winter period) were recorded in Mellowes Park and the pitches west of Farnham Drive, and Tolka Valley Park pond, respectively. These individual observations were the only recording of these species.

3.4.1.6 Disturbance buffer zone

Figure 3-17 highlights the disturbance buffer zone in relation to the key wintering bird locations within and adjacent to the proposed Scheme.

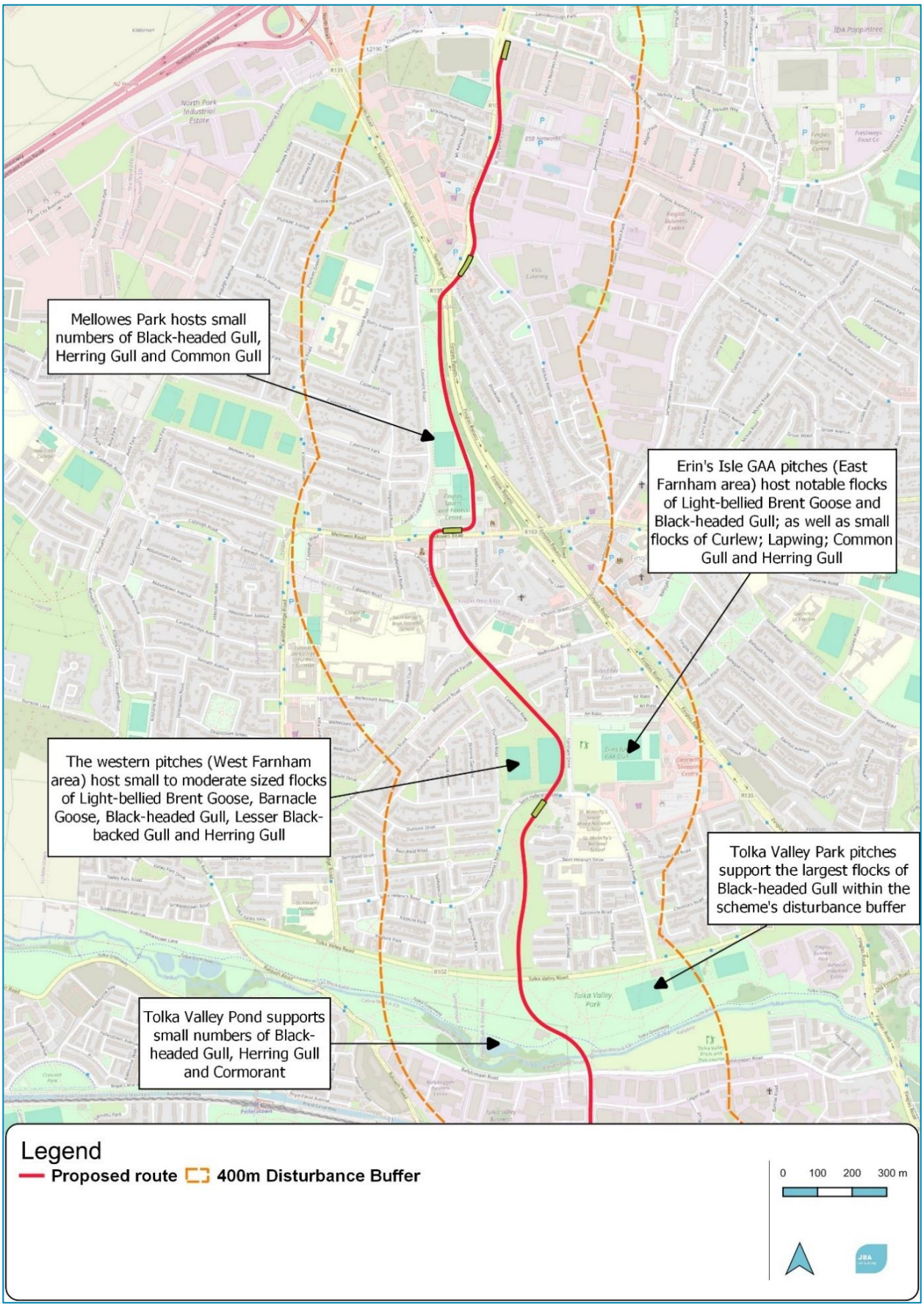

Figure 3-17: The proposed Scheme's route / stop locations and its corresponding disturbance buffer, with key wintering bird areas (OSM, 2024)

3.4.2 Non-SCI Annex Bird Species (Lapwing and Barnacle Goose)

A small flock of Northern Lapwing *Vanellus vanellus*, 15 in total, were recorded utilising the Erin's Isle GAA pitches on 14th December 2023 (Irish Birding, 2024). Additionally, a pair of Barnacle Goose were recorded amongst a flock of Light-bellied Brent Goose in February 2022.

While Northern Lapwing and Barnacle Goose are not SCI species of any of the Natura 2000 sites within the ZoI, nor SCIs of any of the Natura 2000 SPAs within Co. Dublin, they are Annex species, Annex II (Section II) and Annex I, respectively; and are therefore afforded protection under the EU Birds Directive.

3.5 Invasive Species

Table 3-8 below provides a list of invasive non-native species (INNS) recorded during the ecological surveys. It includes species, their level of impact, and whether they are listed on the third schedule of the EC (Birds and Natural Habitats) Regulations 2011 S.I. No. 477/2011. The locations of these invasive species are also displayed in Figure 3-18; Figure 3-19; Figure 3-20; and Figure 3-21.

Table 3-8: INNS recorded within or immediately adjacent to the proposed Scheme's boundary

Invasive Non-Native Species	Impact	Regulation S.I. 477/2011
Canadian Waterweed *Elodea canadensis*	High	Yes
Nuttall's Waterweed *Elodea nuttallii*	High	Yes
Himalayan Balsam *Impatiens glandulifera*	High	Yes
Japanese Knotweed *Reynoutria japonica*	High	Yes
Giant Hogweed *Heracleum mantegazzianum* (Located upstream of Tolka Valley bridge, seeds deposited within the riverbanks by the bridge must be considered)	High	Yes
Sycamore *Acer pseudoplatanus*	Medium	No
Cherry Laurel *Prunus laurocerasus*	High	No
Butterfly-bush *Buddleja davidii*	Medium	No

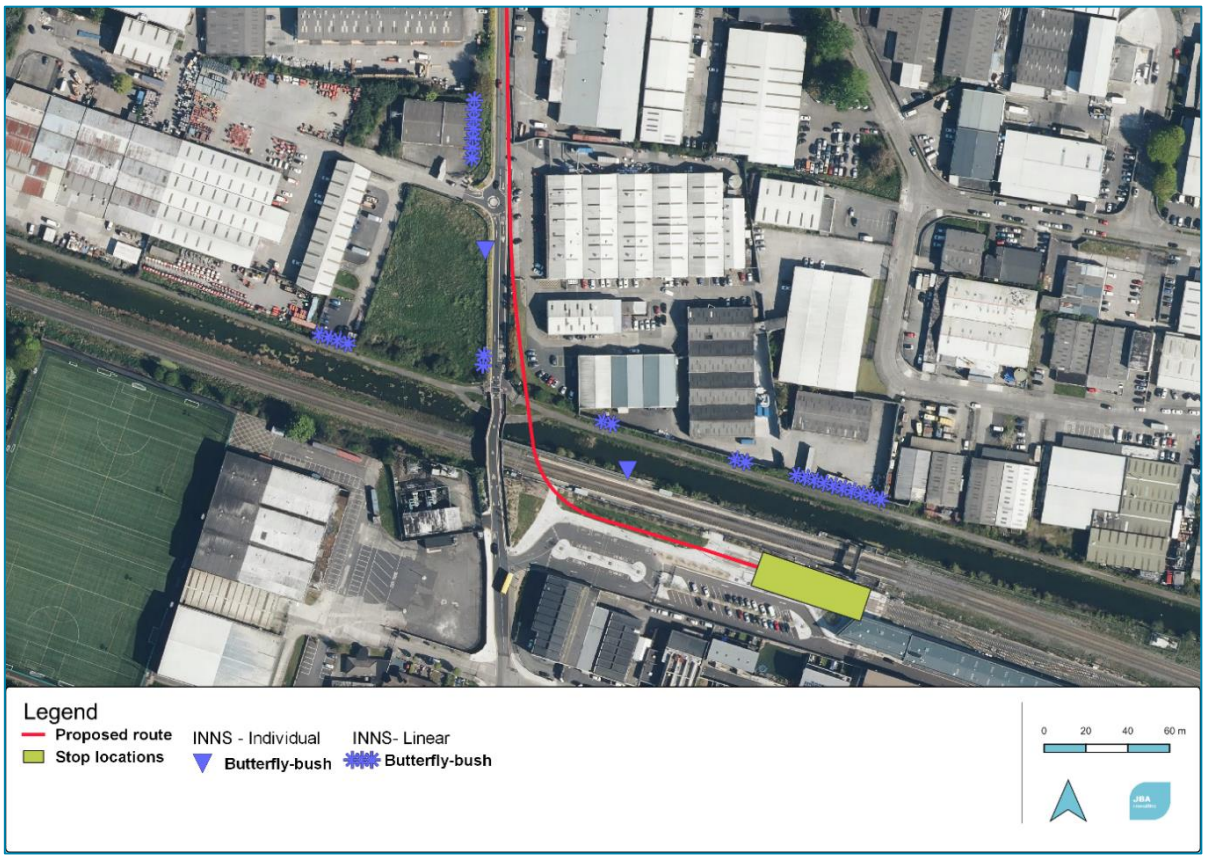

Figure 3-18: Invasives species within the locality of the Royal Canal (Bluesky, 2024)

Figure 3-19: Invasive species along the River Tolka, within Tolka Valley Park (Bluesky, 2024)

Figure 3-20: Invasive species within Mellowes Park (Bluesky, 2024)

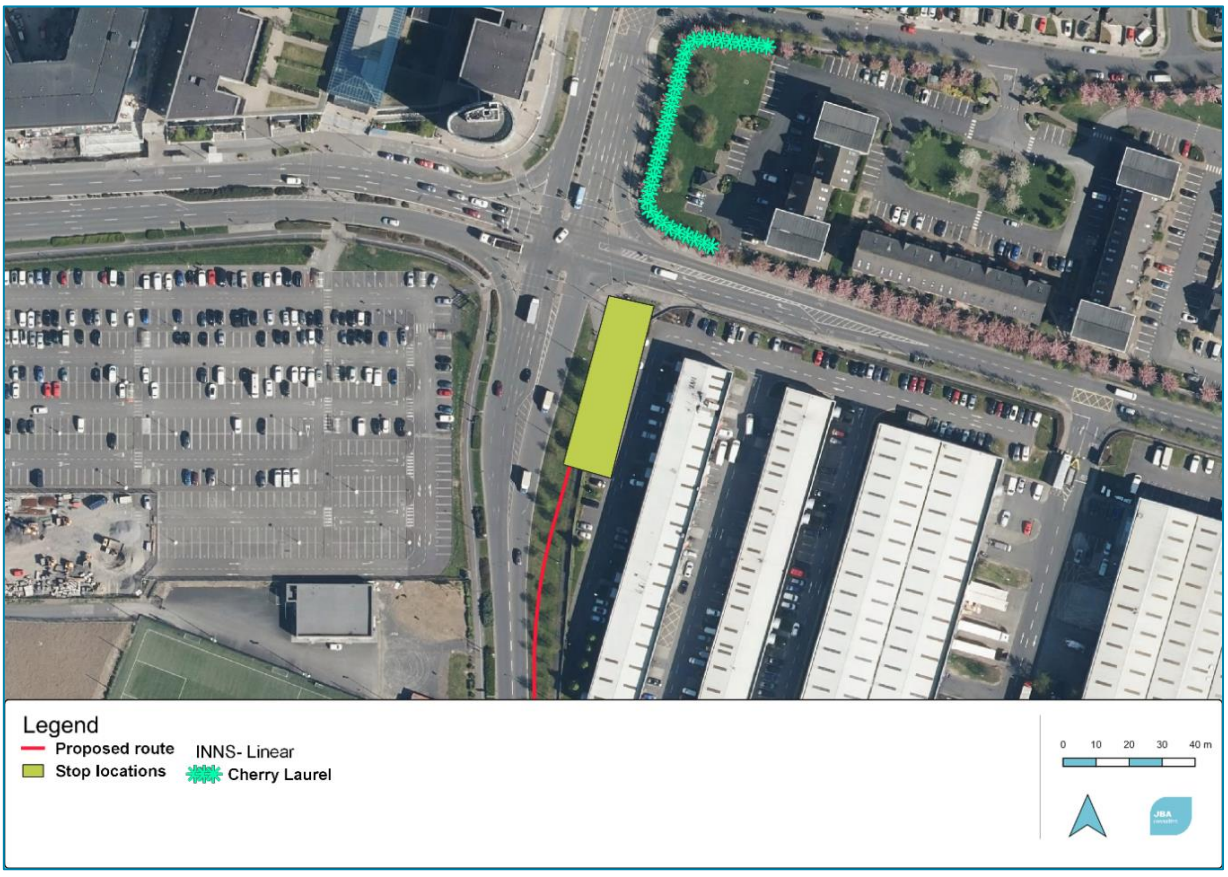

Figure 3-21: Invasive species within the Charlestown area (Bluesky, 2024)

Of the above INNS two species (and potentially a third), namely Himalayan Balsam, Japanese Knotweed and potentially Giant Hogweed, are located in a sensitive location by the proposed Tolka Valley Park Luas bridge; as such, these species will be the focus of biosecurity measures within the accompanying EIAR Biodiversity Chapter (Volume 3 – Chapter 9) going forward. Of these above species, the Japanese Knotweed and Giant Hogweed boast salinity tolerances which may allow them to colonise saltmarsh habitats, and therefore pose a threat to: North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, and South Dublin and River Tolka Estuary SPA Natura 2000 sites. As the Japanese Knotweed along the River Tolka will need to be removed to allow for the installation of the new bridge in this area, it is the most likely invasive species to be accidentally spread downstream into the above listed Natura 2000 sites.

3.6 Local Waterbodies within the vicinity of the Proposed Site

The entire site of the proposed Scheme lies within the Water Framework Directive (WFD) Liffey and Dublin Bay catchment, and within the Tolka_SC_020 sub-catchment (EPA, 2023). There are three identified watercourses within the area of the proposed Scheme, namely the River Tolka (Tolka_050), Bachelors Stream (Tolka_050) and the Royal Canal (Royal Canal Main Line - Liffey and Dublin Bay). Downstream of these natural and artificial watercourses lie the Tolka Estuary and the Liffey Estuary (Lower), which both flow out into Dublin Bay. The WFD status and current risk levels of these waterbodies, are listed in Table 3-9 below. The Tolka Valley Park pond does not have a WFD status or risk condition obligation given that the pond's surface area is less than 0.5km^2.

Table 3-9: The WFD waterbodies within the ZoI of the proposed Scheme

WFD Waterbody	WFD Status (2016-2021)	Risk Status
River Tolka (Tolka_050)	Poor	At risk
Bachelors Stream (Tolka_050)	Poor	At risk
Royal Canal (Royal Canal Main Line - Liffey and Dublin Bay)	Good	Under review
Tolka Estuary	Poor	At risk
Liffey Estuary Lower	Moderate	At risk
Dublin Bay	Good	Not at risk

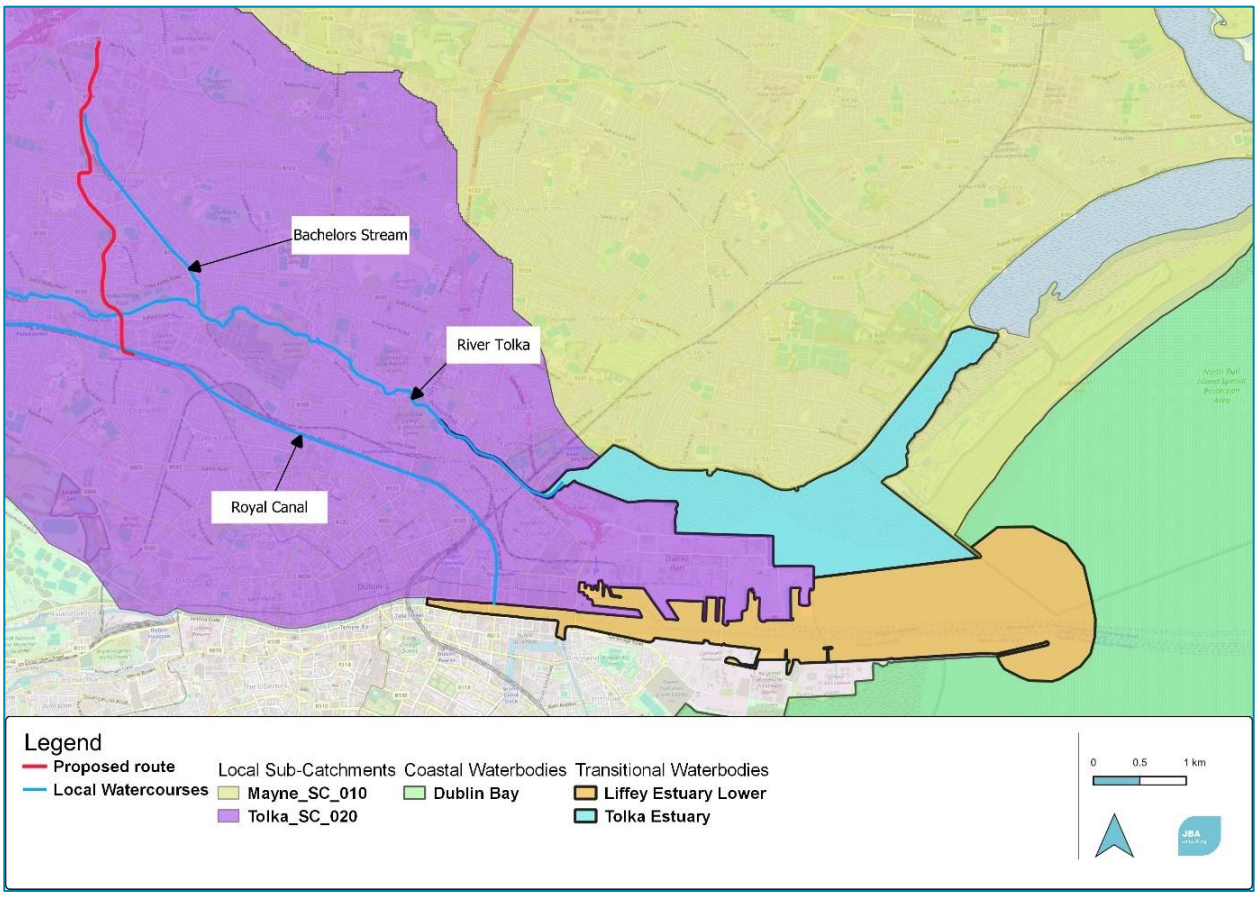

Figure 3-22: Local surface water network (OSM, 2024)

3.7 Groundwater

The proposed Scheme is located within the Dublin (IE_EA_G_008) groundwater body. The Dublin groundwater body currently has a "Good" WFD status (2016-2021), while its risk status is currently under review.

3.7.1 Underlying Geology & Aquifer

The underlying bedrock of the proposed Scheme is comprised of dark grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. This bedrock is largely overlain with limestone till, with smaller linear pockets of limestone gravels and alluvial sediments (particularly within the Tolka Valley Park). There is generally a low sub-soil permeability throughout the boundary of the proposed Scheme (GSI, 2024). As result of the above characteristics the site's aquifer vulnerability status ranges from 'Moderate' to 'Rock at or near Surface or Karst', with the more vulnerable areas located within historic and existing river / stream valleys.

The aquifer within the underlying bedrock is considered to be locally important, with moderate productivity, though only in local zones. Therefore, the aquifer has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. Generally, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres; therefore, surface water which percolates into the groundwater recharging the aquifer won't travel more than several hundred metres from its point of percolation (GSI, 2024). These characteristics result in the underlying aquifer rapidly discharging to the nearby watercourses (GSI, 2024).

3.7.2 Historic Land-use (Tolka Valley Park)

A historic landfill is understood to have operated within Tolka Valley Park but was decommissioned and capped by Dublin City Council (DCC) during the 1970s. Information detailing the specific nature of the waste or the spatial extent of the landfill within the park is limited. A technical report (Ref: 95907), commissioned by DCC Parks and Landscape Services and prepared by BHP in 2010, referenced 'an old landfill site' and confirmed inert landfill waste to be present in six trial pit excavations undertaken in the park. The report does not include any location plans or coordinates for trial pits undertaken so the exact relevance to the proposed Scheme cannot be established. Historical mapping indicates a quarry site was once present within the Tolka Valley Park, which is likely to have been subsequently backfilled with waste and/or uncontrolled fill. Testing of the area has revealed that the leachate does not contain notably hazardous levels of contaminates (see accompanying EIAR – Volume 3 - Chapter 10: Water), however, under the precautionary principle the potential for low-level contamination from the leachate will be considered within the potential impact assessment.

SECTION 4: NATURA 2000 SITES

The DEHLG (2009, Rev 2010) guidance identifies that Screening for Appropriate Assessment of a plan or project should consider the following Natura 2000 sites:

- Any Natura 2000 sites within or adjacent to the plan or project area;
- Any Natura 2000 sites within the likely zone of influence of the plan or project. This is dependent on the nature and scale of the plan, with 15km generally recommended for plans, but potentially much less for projects; and
- Any Natura 2000 sites (and QI / SCI species) that are more than 15km from the plan or project area, but may potentially be impacted upon, for example, through a hydrological connection.

The latest OPR guidance utilises a Source-Pathway-Receptors model, therefore only directly and indirectly (e.g., dust settlement within a different surface water sub-catchment to the one the proposed Scheme is located within) connected Natura 2000 sites will be retained within the ZoI (OPR, 2021).

Natura 2000 sites were examined using the source-pathway receptor model (OPR, 2021) in relation to surface water and groundwater / ground-to-surface water pathways (i.e., local surface water sub-catchments and groundwater bodies / aquifers). In respect to ZoI for air pollution (emissions and dust), Natura 2000 sites within a 250m buffer zone of the site were considered' as per the Institute of Air Quality Management's 'Guidance on the Assessment of Dust from Demolition and Construction' (IAQM, 2024), including ex-situ foraging habitats utilised by QI / SCI species associated with these local Natura 2000 sites. Additionally, a 400m disturbance buffer from boundaries of the proposed Scheme has been incorporated into the ZoI in order to account for local QI / SCI species potentially foraging within ex-situ habitats (see Cutts et al, 2013). Furthermore, wintering bird species (e.g., Light-bellied Brent Goose) that are SCIs of SPAs along the Ireland's east coast are known to travel considerable distances on a daily basis for foraging and roosting, with flocks occasionally utilising outlier sites, outside of that of their typical roosting /foraging areas. These flight distances can be beyond what is normally considered the ZoI for a project. For this reason, the Baldoyle Bay SPA has been included within the ZoI of the proposed Scheme. The potential impact on such species and their Natura 2000 sites will also be assessed in Section 6.

The Natura 2000 sites within the ZoI are listed in Table 4-1 below and their locations are shown in Figure 4-1 overleaf.

Table 4-1: Natura 2000 sites within the ZoI of the proposed Scheme

Site Name	Designation	Direct distance from site	Hydrological distance from site
North Dublin Bay [000206]	SAC	7.1km	9.0km (direct)
South Dublin Bay [000210]	SAC	6.4km	12.4km (direct)
Howth Head [000202]	SAC	13.3km	n/a
Rockabill to Dalkey Island [003000]	SAC	13.2km	15.2km (direct)
South Dublin Bay and River Tolka Estuary [004024]	SPA	4.1km	5.7km (direct)
North Bull Island [004006]	SPA	7.1km	9.0km (direct)
Baldoyle Bay [004016]	SPA	10.6km	n/a
North-West Irish Sea [004236]	SPA	9.6km	11.2km (direct)

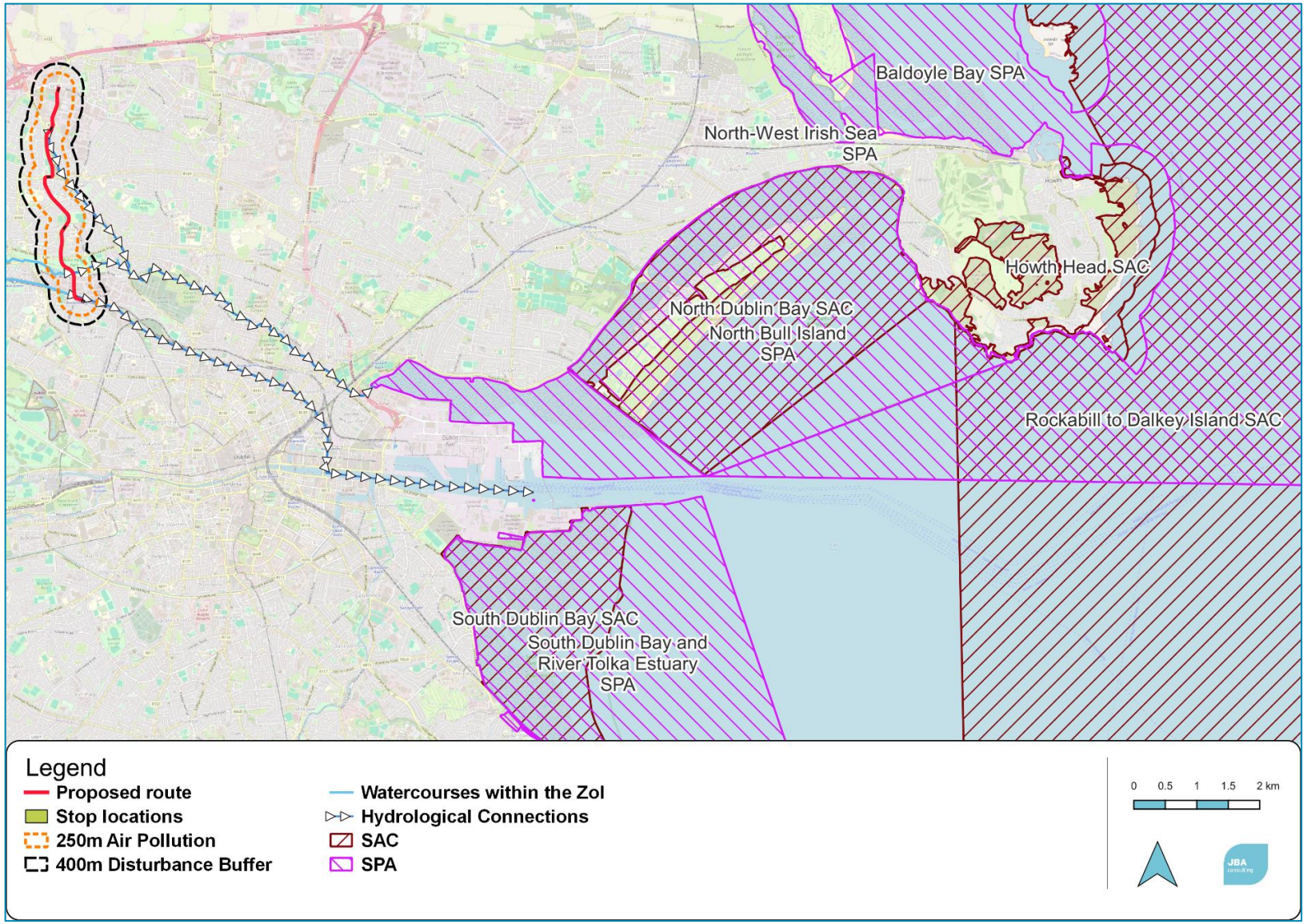

Figure 4-1: Natura 2000 sites within the ZoI of the proposed Scheme (OSM, 2024)

Table 4-2: Site briefs; QIs / SCIs; and proposed Scheme relevant threats /pressures and their impacts and sources to the Natura 2000 sites within the ZoI of the proposed Scheme

Site Name	Brief	QIs / SCIs	Proposed Scheme relevant Threats / Pressures: Impact (Source)
North Dublin Bay SAC	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. The seaward side of the island has a fine sandy beach. A substantial area of shallow marine water is included in the site. The interior of the island is excluded from the site as it has been converted to golf courses. Nature conservation is a main land use within the site. The North Bull Island dune system is one of the most important systems on the east coast and is one of the few in Ireland that is actively accreting. It possesses extensive and mostly good quality examples of embryonic, shifting marram and fixed dunes, as well as excellent examples of humid dune slacks. Both Atlantic and Mediterranean salt marshes are well represented, and a particularly good marsh zonation is shown. The salt marshes grade into mudflats and sandflats, some of which are dominated by annual *Salicornia* species. Petalwort *Petalophyllum ralfsii* occurs at its only known station away from the western seaboard (NPWS, 2020a).	- Mudflats and sandflats not covered by seawater at low tide [1140] - Annual vegetation of drift lines [1210] - *Salicornia* and other annuals colonising mud and sand [1310] - Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] - Mediterranean salt meadows (*Juncetalia maritimi*) [1410] - Embryonic shifting dunes [2110] - Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] - Humid dune slacks [2190] - Petalwort *Petalophyllum ralfsii* [1395] (NPWS, 2013a)	Industrial or commercial areas: High impact (outside) Discharges: High impact (inside) Diffuse pollution to surface waters due to other sources not listed: Medium impact (inside) Urbanised areas, human habitation: High impact (outside) Invasive non-native species: Medium impact (inside) Other point source pollution to surface water: High impact (inside) (NPWS, 2020a)
South Dublin Bay SAC	This intertidal site extends from the South Wall at Dublin Port to the West Pier at Dun Laoghaire, a distance of c. 5 km. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dun Laoghaire. A number of small streams and drains flow into the site. The designated site possesses a fine and fairly	- Mudflats and sandflats not covered by seawater at low tide [1140] - Annual vegetation of drift lines [1210] - *Salicornia* and other annuals colonising mud and sand [1310] - Embryonic shifting dunes [2110] (NPWS, 2013b)	Urbanised areas, human habitation: High impact (outside) Roads, motorways: Low impact (outside) Discharges:

Site Name	Brief	QIs / SCIs	Proposed Scheme relevant Threats / Pressures: Impact (Source)
	extensive example of intertidal flats. Sediment type is predominantly sand, with muddy sands in the more sheltered areas. A typical macro-invertebrate faunal assemblage exists within the SAC. The SAC has the largest stand of Dwarf Eelgrass *Zostera nolti* on the east coast (NPWS, 2020b).		Moderate impact (both) Marine water pollution: Medium impact (both) Industrial or commercial areas: High impact (outside) (NPWS, 2020b)
Howth Head SAC	Howth Head is a rocky headland situated on the northern side of Dublin Bay. A mosaic of heathland vegetation occurs on the slopes above the sea cliffs and in the area of the summit. This is dominated by Western Gorse *Ulex gallii*, Heather *Calluna vulgaris*, Bell Heather *Erica cinerea* and localised patches of Bracken *Pteridium aquilinum*. In more open areas species such as English Stonecrop *Sedum anglicum*, Wood Sage *Teucrium scorodonia* and Navelwort *Umbilicus rupestris* occur, along with some areas of bare rock. The maritime flora is of particular interest as a number of scarce and local plants have been recorded, including Golden-samphire *Inula crithmoides,* Sea Wormwood *Artemisia maritima*, Grass-leaved Orache *Atriplex littoralis*, Frosted Orache *Atriplex laciniata*, Sea Spleenwort *Asplenium marinum*, Bloody Crane's-bill *Geranium sanguineum*, Spring Squill *Scilla verna*, Sea Stork's-bill *Erodium maritimum* and three uncommon clover species: Knotted Clover *Trifolium striatum*, Bird's-foot Clover *T. ornithopodioides* and Western Clover *T. occidentalis*. Rock outcrops which are nationally important for lichens are distributed widely around Howth Head (NPWS, 2013c).	- Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] - European dry heaths [4030] (NPWS, 2013c)	Walking, horse-riding and non-motorised vehicles: High impact (inside) Urbanised areas, human habitation: Medium impact (both) Vandalism: Medium impact (inside) (NPWS, 2018)

Site Name	Brief	QIs / SCIs	Proposed Scheme relevant Threats / Pressures: Impact (Source)
Rockabill to Dalkey Island SAC	This site includes a range of dynamic inshore and coastal waters in the western Irish Sea. Reef habitat is uncommon along the eastern seaboard of Ireland due to prevailing geology and hydrographical conditions. Expansive surveys of the Irish coast have indicated that the greatest resource of this habitat within the Irish Sea is found fringing offshore islands which are concentrated along the Dublin coast. The area selected for designation represents a key habitat for the Annex II species Harbour Porpoise within the Irish Sea. Population survey data show that porpoise occurrence within the site boundary meets suitable reference values for other designated sites in Ireland. The species occurs year-round within the site and comparatively high group sizes have been recorded (NPWS, 2014a).	- Reefs [1170] - Harbour Porpoise *Phocoena phocoena* [1351] (NPWS, 2013d)	Discharges: High impact (outside) (NPWS, 2019)
North Bull Island SPA	The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port. The site is among the top ten sites for wintering waterfowl in the country. It supports internationally important populations of Brent Goose and Bar-tailed Godwit and is the top site in the country for both of these species. A further 14 species have populations of national importance, with particular notable numbers of Shelduck, Pintail, Grey Plover, and Red Knot. The SPA is a regular site for passage waders such as Ruff, Curlew Sandpiper and Spotted Redshank. The site supports Short-eared Owl in winter (NPWS, 2020c).	- Light-bellied Brent Goose *Branta bernicla hrota* [A046] - Common Shelduck *Tadorna tadorna* [A048] - Teal *Anas crecca* [A052] - Northern Pintail *Anas acuta* [A054] - Northern Shoveler *Anas clypeata* [A056] - Eurasian Oystercatcher *Haematopus ostralegus* [A130] - European Golden Plover *Pluvialis apricaria* [A140] - Grey Plover *Pluvialis squatarola* [A141] - Red Knot *Calidris canutus* [A143] - Sanderling *Calidris alba* [A144] - Dunlin *Calidris alpina* [A149] - Black-tailed Godwit *Limosa limosa* [A156] - Bar-tailed Godwit *Limosa lapponica* [A157] - Eurasian Curlew *Numenius arquata* [A160]	Continuous urbanisation: Medium impact (outside) Industrial or commercial areas: Medium impact (outside) Discharges: Medium impact (both) (NPWS, 2020c)

Site Name	Brief	QIs / SCIs	Proposed Scheme relevant Threats / Pressures: Impact (Source)
		- Common Redshank *Tringa totanus* [A162] - Ruddy Turnstone *Arenaria interpres* [A169] - Black-headed Gull *Chroicocephalus ridibundus* [A179] - Wetland and Waterbirds [A999] (NPWS, 2015a)	
South Dublin Bay and River Tolka Estuary SPA	This designated site comprises a substantial part of Dublin Bay. It includes virtually all of the intertidal area in the south bay, as well as much of the Tolka Estuary to the north of the River Liffey. The sands support the largest stand of Dwarf Eelgrass on the east coast of Ireland. Sediments in the Tolka Estuary vary from soft thixotropic muds with a high organic content in the inner estuary to exposed, well aerated sands off the Bull Wall. The site regularly has an internationally important population of Brent Geese, which feeds on Dwarf Eelgrass in the autumn. It has nationally important numbers of a further 6 species including: Oystercatcher, Ringed Plover, Red Knot, Sanderling, Dunlin and Bar-tailed Godwit. It is an important site for wintering gulls, especially Black-headed Gull and Common Gull *Larus canus*. Is a regular autumn roosting ground for significant numbers of terns, including Roseate Terns, Common Tern and Artic Tern (NPWS, 2020d).	- Light-bellied Brent Goose *Branta bernicla hrota* [A046] - Eurasian Oystercatcher *Haematopus ostralegus* [A130] - Ringed Plover *Charadrius hiaticula* [A137] - Grey Plover *Pluvialis squatarola* [A141] - Red Knot *Calidris canutus* [A143] - Sanderling *Calidris alba* [A144] - Dunlin *Calidris alpina* [A149] - Bar-tailed Godwit *Limosa lapponica* [A157] - Common Redshank *Tringa totanus* [A162] - Black-headed Gull *Chroicocephalus ridibundus* [A179] - Roseate Tern *Sterna dougallii* [A192] - Common Tern *Sterna hirundo* [A193] - Arctic Tern *Sterna paradisaea* [A194] - Wetland and Waterbirds [A999] (NPWS, 2015b)	Urbanised areas, human habitation: High impact (outside) Industrial or commercial areas: High impact (outside) Discharges: High impact (inside) (NPWS, 2020d)
Baldoyle Bay SPA	Baldoyle Bay, located to the north and east of Baldoyle and to the south of Portmarnock, Co. Dublin, is a relatively small, narrow estuary separated from the open sea by a large sand dune system. Two small rivers, the Mayne River and the Sluice River, flow into the inner part of the estuary. Baldoyle Bay SPA is of high conservation importance, for supporting internationally important numbers of Light-	- Light-bellied Brent Goose *Branta bernicla hrota* [A046] - Shelduck *Tadorna tadorna* [A048] - Ringed Plover *Charadrius hiaticula* [A137] - Golden Plover *Pluvialis apricaria* [A140] - Grey Plover *Pluvialis squatarola* [A141] - Bar-tailed Godwit *Limosa lapponica* [A157] - Wetland and Waterbirds [A999]	Urbanised areas, human habitation: High impact (outside) (NPWS, 2020e)

Site Name	Brief	QIs / SCIs	Proposed Scheme relevant Threats / Pressures: Impact (Source)
	bellied Brent Goose as well as nationally important populations of a further five species, including Golden Plover and Bar-tailed Godwit, both species that are listed on Annex I of the E.U. Birds Directive. (NPWS, 2014b)	(NPWS, 2013e)	
North-West Irish Sea SPA	The North-west Irish Sea SPA constitutes an important resource for marine birds. The estuaries and bays that open into it along with connecting coastal stretches of intertidal and shallow subtidal habitats, provide safe feeding and roosting habitats for waterbirds throughout the winter and migration periods. These areas, along with more pelagic marine waters further offshore, provide additional supporting habitats (for foraging and other maintenance behaviours) for those seabirds that breed at colonies on the north-west Irish Sea's islands and coastal headlands. These marine areas are also important for seabirds outside the breeding period. This SPA extends offshore along the coasts of counties Louth, Meath and Dublin, and is approximately 2,333km^2 in area. This SPA is ecologically connected to several existing SPAs in this area. (NPWS, 2023)	- Red-throated Diver *Gavia stellata* [A001] - Great Northern Diver *Gavia immer* [A003] - Fulmar *Fulmarus glacialis* [A009] - Manx Shearwater *Puffinus puffinus* [A013] - Cormorant *Phalacrocorax carbo* [A017] - Shag *Phalacrocorax aristotelis* [A018] - Common Scoter *Melanitta nigra* [A065] - Black-headed Gull *Chroicocephalus ridibundus* [A179] - Common Gull *Larus canus* [A182] - Lesser Black-backed Gull *Larus fuscus* [A183] - Herring Gull *Larus argentatus* [A184] - Great Black-backed Gull *Larus marinus* [A187] - Kittiwake *Rissa tridactyla* [A188] - Roseate Tern *Sterna dougallii* [A192] - Common Tern *Sterna hirundo* [A193] - Arctic Tern *Sterna paradisaea* [A194] - Little Tern *Sterna albifrons* [A195] - Guillemot *Uria aalge* [A199] - Razorbill *Alca torda* [A200] - Puffin *Fratercula arctica* [A204] - Little Gull *Hydrocoloeus minutus* [A862] (NPWS, 2023)	Not currently listed given the sites candidate SPA status.

SECTION 5: OTHER RELEVANT PLANS AND PROJECTS

5.1 In-combination Effects

As part of the Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region that may induce cumulative impacts must also be considered at this stage. The list of plans and projects is reflective of those identified in Volume 3 - Chapter 9 (Biodiversity) of the EIAR that accompanies the Railway Order Application for the proposed Scheme.

The following projects or plans were identified as potential sources of cumulative impacts:

- Dublin City Development Plan 2022 – 2028;
- Fingal County Development Plan 2023-2029;
- Greater Dublin Drainage Strategy 2005;
- Transport Strategy for Greater Dublin Area 2022-2042;
- Third Cycle River Basin Management Plan for Ireland 2022-2027; and
- Planning Applications (retrieved from Data.gov.ie - Planning Application Sites).

5.2 Plans

5.2.1 Dublin City Development Plan 2022 - 2028 - Natura Impact Report Conclusion (Scott Cawley, 2022)

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 associated with the Plan, and that the implementation of mitigatory measures identified in Section 8 of the NIR (and included as objectives and policies of the Plan), that the Plan will not adversely affect (either directly or indirectly) the integrity of any European site, either alone or in combination with other plans or projects. Furthermore, the elected members of Dublin City Council, as the competent authority, formally recorded their determination at the end of the special council meetings held on November 1st and 2nd 2022 that the Plan would not adversely affect (either directly or in directly) the integrity of any European site, either alone or in combination with other plans of projects.

5.2.2 Fingal Development Plan 2023 - 2029 - Natura Impact Report (FCC, 2023)

The Natura Impact Report for the Fingal Development Plan 2023- 2029 presents the examination and analysis, in light of the best scientific knowledge, with respect to those Natura 2000 sites within the ZoI of the Plan the potential impact sources and pathways, how these could impact on the sites' QI / SCI species and whether the predicted impacts would adversely affect the integrity of those Natura 2000 sites.

It has been objectively concluded, following an examination, analysis and evaluation of the relevant information, including in particular the nature of the predicted impacts associated with the Plan and that the implementation of protective policies and objectives listed in Section 8 of the Natura Impact Report that the Plan will not adversely affect (either directly or indirectly) the integrity of any Natura 2000 site, either alone or in combination with other plans or projects.

Following on from this, the competent authority, which is composed of the Elected Members of Fingal County Council formally recorded their determination that the Plan would not adversely affect (either directly or in directly) the integrity of any European site, either alone or in combination with other plans of projects.

5.2.3 Greater Dublin Drainage Strategy 2005

The Greater Dublin Drainage Strategy sets out the strategic planning for the development of waste water treatment in the Greater Dublin area in relation to the Ringsend WWTP Upgrade, Greater Dublin Drainage Project and associated wastewater network drainage projects (Irish Water, 2018). The Ringsend WWTP Upgrade includes plans to expand the WWTP to its ultimate capacity, together with associated network

upgrades required. The Greater Dublin Drainage Project is planned to relieve both the Ringsend WWTP and network loading by construction of a new WWTP at Clonshaugh, an orbital sewer and provision of an outfall pipe discharging 1km northeast of Ireland's Eye.

The Ringsend WWTP upgrade is in progress and carried out in stages, with an increased capacity of 400,000 PE by Q1 2021 and the ultimate capacity of 2.4 million PE to be in operation by 2024 (Irish Water, 2018).

The Greater Dublin Drainage Project is strategically important to the Dublin Region in that it will provide capacity for residential and commercial growth (Irish Water, 2018).

5.2.4 Transport Strategy for Greater Dublin Area 2022-2042 - Natura Impact Statement (CAAS, 2021)

A Stage 2 Appropriate Assessment of the Transport Strategy for the Greater Dublin Area has identified that the implementation of the Strategy has the potential to result in effects to the integrity of 66 Natura 2000 sites, if unmitigated.

The risks to the safeguarding and integrity of the qualifying interests, special conservation interests and conservation objectives of the Natura 2000 sites have been addressed by the inclusion of mitigation measures that will prioritise the avoidance of effects in the first place and mitigate effects where these cannot be avoided. In addition, all lower-level plans and projects arising through the implementation of the Strategy will be subject to the Appropriate Assessment process when further details of design and location are known.

In-combination effects from interactions with other plans and projects were considered in the assessment and the mitigation measures incorporated into the Strategy are seen to be suitably robust to ensure there will be no significant adverse effects as a result of the implementation of the Strategy either alone or in-combination with other plans/projects.

5.2.5 Third Cycle River Basin Management Plan for Ireland 2022-2027 (DoHPLG, 2022)

The first cycle of River Basin Management Plans included the Eastern River Basin District - River Basin Management Plan (ERBDMP) 2009 – 2015 (WFD (2010). The plans summarised the waterbodies that may not meet the environmental objectives of the WFD by 2015 and identified which pressures are contributing to the environmental objectives not being achieved. The plans described the classification results and identified measures that can be introduced in order to safeguard waters and meet the environmental objectives of the WFD.

- Prevent deterioration of water body status;
- Restore good status to water bodies;
- Achieve protected areas objectives; and
- Reduce chemical pollution of water bodies.

The second cycle River Basin Management Plan (RBMP) for Ireland 2018-2021 sets out the actions that Ireland will take to improve water quality and achieve 'good' ecological status in water bodies (rivers, lakes, estuaries and coastal waters) by 2021 (DoHPLG, 2018a). Changes from previous River Basin Management Plans is that all River Basin Districts are merged as one national River Basin District. The Plan provides a more coordinated framework for improving the quality of our waters — to protect public health, the environment, water amenities and to sustain water-intensive industries, including agri-food and tourism, particularly in rural Ireland.

The third and current cycle aims to build on the initiatives of the second cycle, particularly the governance and implementation structures, and to improve the establishment of Uisce Éireann, An Forum Uisce, the Local Authority Waters Programme and the Agricultural Sustainability Support and Advisory Programme.

The third cycle draft Catchment Report for Liffey and Dublin Bay Catchment (EPA, 2021) identified that between Cycles 2 and 3 there has been an overall small improvement in the catchment's status. The overall change in quality between Cycles 2 and 3 include 2 waterbodies that have achieved High Status, which is an increase of one, 56 which achieve Good Status has been increased by four, 23 achieving a Moderate Status which is a decrease in four waterbodies, and 24 achieving a Poor Status an increase of 1 between cycles. There are no Bad Status waterbodies as of Cycle 3, which is a decrease of one from Cycle 2. The main significant pressures are aquaculture, anthropogenic, atmospheric, historically polluted sites and waste pressures followed by agriculture, urban run-off and forestry.

5.3 Other Projects

Other projects are included overleaf (Table 5-1), within the locality of the proposed Scheme and which could have in-combination effects with the proposed Scheme.

Table 5-1: Other projects which may have in-combination effects with the proposed Scheme

Planning Reference	Address	Application Status	Decision date	Summary of development
DCC - 3329/20	Former Georgia Pacific facility, at McKee Avenue, Finglas, Dublin 11	Grant Permission	21/01/2021	Permission for development at a c. 2.83-hectare site at former Georgia Pacific Facility at McKee Avenue, Finglas, Dublin 11. The proposed development will consist of the demolition of a c. 1,732m^2 part single storey part two storey office building facing McKee Avenue which was formally part of the Georgia Pacific facility. The proposed development will also provide for a reconfiguration of car parking spaces at the entire former Georgia Pacific facility resulting in a revised provision of 44 car parking spaces overall. Permission is also sought for all ancillary site services and landscape works necessary to facilitate the proposed development.
FCC - 310350	Charlestown Place, St. Margaret's Road, Charlestown, Co. Dublin	Grant Permission	16/09/2021	590 apartments, a creche and all associated site works.
ABP-302010-18	Metrolink– Estuary to Charlemont via Dublin Airport	Under Review	21/12/2023	The Railway Order, if granted, will authorise the National Roads Authority (operating as TII) to carry out railway works, and all works necessary to enable the construction, operation, maintenance and improvement of a railway designated as a metro including inter alia the construction of a fully segregated and automated railway and metro mostly underground approximately 18.8 kilometres in length with 16 stations running from north of Swords at Estuary through Swords, Dublin Airport, Ballymun, Glasnevin and the City Centre to Charlemont in the south of Dublin City Centre. It will also authorise TII, with the subsequent consent of the Minister for Transport, to make arrangements with other parties to construct, maintain, improve or operate the said railway works and railway. The construction period provided for in the draft Railway Order is ten years from the date it comes into effect. The works will generally comprise of a Railway approximately 18.8 kilometres in length which is mostly underground. It includes a 9.4km section of single bore tunnel running beneath Dublin City Centre running from Charlemont to Northwood Station and a 2.3km section of single bore tunnel running beneath Dublin Airport. Tunnel sections include intervention access facilities for emergency services at Dublin Airport, Albert College Park and just south of Charlemont Station. Tunnel Portal structures will be provided at Northwood, Dardistown and Dublin Airport. North of Dublin Airport the railway will emerge from tunnel and will run at surface level and in cut and cover structures to Estuary Station. Surface running sections and cut and cover sections will include earthworks, the use of retained cut and cover structures, elevated sections plus miscellaneous drainage and accommodation works. A new 99m bridge will be constructed over the M50 and a 261m long multi-span Viaduct over the Broadmeadow and Ward River. There will be a total of 16 stations, including 11 underground stations at Dublin Airport, Northwood, Ballymun, Collins Avenue, Griffith Park, Glasnevin, Mater, O'Connell Street, Tara, St.

Planning Reference	Address	Application Status	Decision date	Summary of development
				Stephen's Green and Charlemont; 4 retained cut stations at Seatown, Swords Central, Fosterstown and Dardistown and 1 at grade station at Estuary. A multi-storey 3000 space park and ride close to the M1 Motorway will be provided at Estuary Station, a maintenance depot is located near Dardistown Station which will house all the facilities required for the maintenance and operation of the MetroLink and its rolling stock and the Operational Control Centre. The works will also include railway signalling, command and control and communications systems; provision of electrical substations; establishment of temporary construction compounds; establishment of temporary traffic management and road diversions; new and realigned access routes and road junction improvements; diversion of existing utilities; provision of new drainage infrastructure; provision of environmental mitigation measures; and other infrastructural modifications to facilitate the overall project. The Railway Order, if granted, also includes powers for the National Roads Authority (operating as TII) to acquire compulsorily land or rights in, under or over land or any substratum of land specified in the order; to temporarily acquire and occupy land specified in the order; to acquire easements and other rights over land specified in the order; to extinguish public and/or private rights including rights of way specified in the order; and provides for other rights over land.
ABP-306587	Railway Line - Maynooth to Dublin City Centre	Under Review	29/07/2022 (submitted)	The principal infrastructure components of the proposed development are as follows: ▪ Electrification and re-signalling of the Maynooth and M3 Parkway lines (approximately 40km in length). ▪ Capacity enhancements at Connolly Station (to include modifications to junctions and the station) to facilitate increased train and passenger numbers. ▪ Construction of a new Spencer Dock Station, which will better serve the north Docklands area and improve interchange with the Luas and support sustainability mobility. ▪ Closure of six level crossings (Ashtown, Coolmine, Porterstown, Clonsilla, Barberstown and Blakestown) and provision of replacement access infrastructure (road bridges and/or pedestrian and cycle bridges, as required). There is no replacement access infrastructure proposed at Blakestown level crossing. ▪ Construction of a new DART depot facility west of Maynooth to facilitate the maintenance and parking (stabling) of trains. ▪ Interventions at existing bridges along the rail line where there are insufficient clearances for the overhead electrification equipment. (Interventions may include track lowering, bridge modifications and/ or a combination of both) and ▪ Construction of substations, electrical buildings, and all other civil and ancillary works as necessary to accommodate the project.
ABP-308826-20	Cork Mainline from Hazelhatch & Celbridge	Under Review	22/03/2023 (submitted)	The proposed DART+ Southwest Project will consist of the electrification of the existing Cork Mainline from Hazelhatch & Celbridge Station to Heuston Station, and to Glasnevin Junction via the Phoenix Park Tunnel Branch Line (Great Southern and Western Rail Line - GSWR). The works

Planning Reference	Address	Application Status	Decision date	Summary of development
	Station to Heuston Station, and to Glasnevin Junction via the Phoenix Park Tunnel Branch Line			extend across three administrative areas/local authority areas, including Kildare, South Dublin and Dublin City. The total length of the proposed development is approximately 20 kilometres.
DCC - MP04	DART+ Tunnel Element (Kildare Line to Northern Line)	TBC	TBC	The DART+ Coastal North project, as part of the DART+ Programme, will deliver an improved and extended electrified rail network and will enable increased passenger capacity and an enhanced train service between Dublin City Centre and Drogheda, including the Howth Branch railway line. This increased rail capacity will be achieved by implementing an extended electrified railway network with high-capacity DART trains and an increased frequency of rail services. In addition, the DART+ Coastal North project requires that some track modifications be implemented, including the provision of turnback facilities at Malahide, Clongriffin and Howth Junction & Donaghmede Stations. These modifications are essential to facilitate the increase in train services by improving operational flexibility, allowing trains to be turned back clear of continuing services and to allow for a higher frequency and a more reliable service. The majority of proposed works and interventions are expected to be carried out within the existing railway corridor boundary. Some works and interventions, however, will be required outside of Iarnród Éireann (IÉ) / Córas Iompair Éireann (CIÉ) land such as: bridge modifications/improvements to facilitate extended electrification; construction of substations (to facilitate the provision of power to the line); and use of land for temporary construction/storage compounds.
ABP - 317121	Swords to Dublin City Centre	Under Review	Case is due to be decided by 22/03/2024	The proposed development submitted under this application will comprise the construction of the Swords to City Centre Bus Corridor which has an overall length of approximately 12km and is routed along the R132 Swords Road. The proposed development travels in a southerly direction along the R132 Swords Road past Airside Retail Park, Dublin Airport and Santry Park. The route continues on the R132 past Santry Demesne, where the Swords Road joins the R104 at Coolock Lane. The route continues on the R132 in a southerly direction through Santry Village. It continues along the Swords Road past Whitehall to Griffith Avenue. The route follows Drumcondra Road Upper past the DCU St Patrick's Campus to the River Tolka. It continues through Drumcondra, on Drumcondra Road Lower, to Binns Bridge on the Royal Canal. From there it continues on Dorset Street Lower as far as Eccles Street, from where it continues on Dorset Street Upper to North Frederick Street and Granby Row.
ABP - 314610	Ballymun - Finglas	Under Review	09/09/2022 Lodged	The proposed development will be approximately 11km in length and will be comprised of two main alignments in terms of the route it will follow, from Ballymun to the City Centre (the Ballymun Section) and from Finglas to Phibsborough (the Finglas Section). The Ballymun Section of the

Planning Reference	Address	Application Status	Decision date	Summary of development
			Requires Further Consideration	proposed development will commence on R108 Ballymun Road at its junction with St. Margaret's Road, just south of M50 Motorway Junction 4, and will be routed along the R108 on Ballymun Road, St. Mobhi Road, Botanic Road, Prospect Road, Phibsborough Road, Constitution Hill and R132 Church Street as far as R148 Arran Quay at the River Liffey on the western edge of Dublin City Centre. Priority for buses will be provided along the entire route, consisting primarily of dedicated bus lanes in both directions, where feasible, with alternative measures proposed at particularly constrained locations such as at R108 St. Mobhi Road. A complementary cycle route along quiet streets is proposed along Royal Canal Bank in Phibsborough, which will extend southwards from the Royal Canal to Western Way, parallel a short distance to the east of R108 Phibsborough Road, and also through the Markets Area at the southern end of the proposed development. The Finglas Section of the proposed development will commence on the R135 Finglas Road at the junction with R104 St. Margaret's Road and will be routed along the R135 Finglas Road as far as Hart's Corner in Phibsborough, where it will join the Ballymun Section of the proposed development. Priority for buses will be provided along the entire route, consisting of dedicated bus lanes in both directions. Continuous segregated cycle lane will be provided from the Church Street Junction in Finglas to Hart's Corner. No cycle lane is proposed along the Finglas Bypass at the northern end of the proposed development, as more suitable routes are available along local streets.
ABP - 313892	Blanchardstown to Dublin City Centre	Under Review	24/06/2022 Lodged Case is due to be decided by 11/01/2023	The proposed development will provide bus priority measures and segregated cycle infrastructure as follows: The number of pedestrian signal crossings will increase by 62% from 77 to 125 as a result of the proposed development; the proportion of segregated cycle facilities will increase from 9% on the existing corridor to 78% on the proposed development; and the proportion of the route having bus priority measures will increase from 25% on the existing corridor to 97% on the proposed development.
ABP - 313182	Clongriffin to Dublin City Centre	Grant Permission	08/01/2024	The proposed development is essentially an upgrade to the existing bus priority, cycle facilities and pedestrian infrastructure associated with the Malahide Road Quality Bus Corridor (QBC), which has been in place since 1999. Specific works proposed within the development include the following: 5.7 km (two-way) of bus priority infrastructure and traffic management; 11.9km (total both directions) of cycling infrastructure and facilities; Provision of new / refurbished pedestrian facilities and footpaths along the scheme and associated ancillary works; Provision of 15 junction upgrades including conversion of two existing large roundabouts to signalised junctions and associated ancillary works; Provision of 31 new / refurbished raised table side entry facilities; Reconfiguration of existing bus stops resulting in 30 number new bus stop facilities; Public Realm works including landscaping, planting, street furniture, street lighting, retaining walls, boundary walls, and sustainable urban drainage measures; Roads associated earthworks including excavation of unacceptable material, importation of material, temporary storage of materials; Provision of road pavement, signing, lining and ancillary works; Provision of gates, fencing and boundary treatment works; Construction of

Planning Reference	Address	Application Status	Decision date	Summary of development
				accommodation works including boundary treatment and ancillary grading and landscaping works together with all ancillary and consequential works associated there with.
ABP - 314942	Lucan to Dublin City Centre	Under Review	10/2022 Lodged Case is due to be decided by 05/2023	The proposed development commences at Junction 3 on the N4 where the C-Spine route terminates before splitting to branch routes, and it is routed via the N4 as far as Junction 7 (M50), and via the R148 along the Palmerstown Bypass, Chapelizod Bypass, Con Colbert Road and St John's Road West as far as Frank Sherwin Bridge, where it will join the prevailing traffic management regime on the South Quays.
ABP - 314091	Liffey Valley to Dublin City Centre	Grant Permission	19/12/2023	The proposed development runs along the Fonthill Road, R833 Coldcut Road, R833 Ballyfermot Road through Ballyfermot Village and continues onto the Sarsfield Road, Grattan Crescent, Emmet Road, Old Kilmainham, Mount Brown and James's Street. From here the proposed development continues along Thomas Street, Cornmarket and along High Street. The proposed development will join the prevailing City Centre traffic management regime at the junction with Nicholas Street and Winetavern Street.
ABP - 317070	Tallaght / Clondalkin to Dublin City Centre	Under Review	05/05/2023 (lodged) Case is due to be decided by 08/02/2024	The proposed development has an overall length of approximately 15.5km with an additional offline cycling facility of approximately 3.9 km. It will be comprised of two main alignments in terms of the route it follows; namely the Tallaght to City Centre section and the Clondalkin to Drimnagh section. The first section, the Tallaght to City Centre section, begins at the junction of Old Blessington Road / Cookstown Way and is routed along Belgard Square West, Belgard Square North, Belgard Square East and Blessington Road to the junction of R819 Greenhills Road and Bancroft Park. From here, the proposed development is routed along the R819 Greenhills Road to Walkinstown Roundabout via new transport link roads; in the green area to the east of Birchview Avenue / Treepark Road; in the green area to the south of Ballymount Avenue, and in the green area to the east of Calmount Road. From Walkinstown Roundabout, the proposed development is routed along the R819 Walkinstown Road to the junction with R110 Long Mile Road and Drimnagh Road. The shared spine with the Clondalkin section commences at this junction and the proposed development is routed along the R110 to the junction of Dean Street and Patrick Street via Drimnagh Road, Crumlin Road, Dolphins Barn, Cork Street, St. Luke's Avenue and Dean Street. From here the proposed development is routed along the R137 via Patrick Street to the junction at Winetavern Street and Christchurch Place where the proposed development terminates within the City Centre. An offline cycle provision is proposed to facilitate cycling between Walkinstown Roundabout and Parnell Road (Grand Canal) where end to end cycle facilities are not feasible along the main corridor and provides a more direct route towards the City Centre. This offline section of the proposed development is routed via Bunting Road, Kildare Road and Clogher Road. The second section, the Clondalkin to Drimnagh section, begins at the junction of New Nangor Road and Woodford Walk and is routed along the R134 New Nangor Road, R810 Naas Road, R112 Walkinstown Avenue and the R110

Planning Reference	Address	Application Status	Decision date	Summary of development
				Long Mile Road to the junction of Walkinstown Road and Drimnagh Road where it is routed towards the City Centre along the shared spine section as described above.
ABP - 316272	Templeogue / Rathfarnham to Dublin City Centre	Under Review	14/04/2023 (Lodged) Case is due to be decided by 23/10/2023	The proposed development has an overall length of approximately 10km from end to end online with additional offline upgrades and quiet street treatment of approximately 2km and 1.5km respectively. The proposed development will be comprised of two main alignments, namely from Templeogue to Terenure (3.7km), and from Rathfarnham to the City Centre (6.3km). The Templeogue to Terenure section will commence on the R137 Tallaght Road, east of the M50 junction 11 interchange. From here, the proposed development is routed via the R137 along Tallaght Road and Templeogue Road, through Templeogue Village, to Terenure Cross, where it joins the Rathfarnham to City Centre section. The Rathfarnham to City Centre section will commence on the R821 Grange Road at the junction with Nutgrove Avenue, and is routed along the R821 Grange Road, the R115 Rathfarnham Road, the R114 Rathfarnham Road, Terenure Road East, Rathgar Road, Rathmines Road Lower, Richmond Street South, Camden Street Upper and Lower and Wexford Street as far as the junction with the R110 at Kevin Street Lower and Cuffe Street where priority bus lanes end. From Cuffe Street to Dame Street along Redmond's Hill, Aungier Street, and South Great George's Street the route will involve a traffic lane and a cycle lane in both directions where it will join the prevailing traffic management regime in the city centre. In addition to the above, an alternative cycle facility will be provided along Harold's Cross Road / Terenure Road North between Terenure Cross and Parkview Avenue, as well as along Bushy Park Road, Wasdale Park, Wasdale Grove, Zion Road and Orwell Road. The route of the proposed development is shown in Image 1.1 in Chapter 1 (Introduction). The proposed development includes an upgrade of the existing bus priority and cycle facilities. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the proposed development bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle lane provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions. Moreover, pedestrian facilities will be upgraded, and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrians experience, an example of this can be seen in Terenure, particularly at Terenure Cross.
ABP - 317660	Kimmage to Dublin City Centre	Under Review	Cased lodged 25/07/2023 (Lodged) Case is due to be decided by 11/04/2024	The proposed development will be approximately 3.7km in length and will commence on R817 Kimmage Road Lower at the junction with the R818 on Terenure Road West and Kimmage Road West, and R817 Fortfield Road. The proposed development will continue along R817 Kimmage Road Lower towards the City Centre, via the R137 on Harold's Cross Road, Clanbrassil Street Upper and Lower and New Street South. Priority for buses will be provided along the entire route, consisting primarily of dedicated bus lanes in both directions, where feasible, with alternative

Planning Reference	Address	Application Status	Decision date	Summary of development
				measures proposed at particularly constrained locations such as much of R817 Kimmage Road Lower, Harold's Cross Park West and short sections of R137 Clanbrassil Street Upper and Lower in alternate directions. A complementary cycle lane is also proposed to the west of the proposed development via quiet streets at the southern end of the proposed development. Moreover, pedestrian facilities will be upgraded, and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrian experience. Examples of this include the proposed works at R817 Kimmage Road Lower and Sundrive Road, and at St. Patrick's Court.
ABP - 317742	Bray to Dublin City Centre	Under Review	04/08/2023 (Lodged) Case is due to be decided by 21/02/2024	The proposed development will commence at the junction of Leeson Street Lower and St Stephen's Green. The proposed development will run along Leeson Street Lower and Upper including the existing one-way system on Sussex Road. It will continue on Morehampton Road and Donnybrook Road through Donnybrook Village, and on to the Stillorgan Road. It will intersect with the Belfield / Blackrock to City Centre CBC Scheme at Nutley Lane and include the University College Dublin (UCD) Bus Interchange at the entrance to UCD. It will continue south on Stillorgan / Bray Road as far as the Loughlinstown Roundabout. The route will then proceed along the Dublin Road through Shankill and on to Bray through the Wilford Roundabout (M11 Access Roundabout), Dublin Road, and Castle Street. The proposed development will terminate at the Dargle River Crossing (Fran O'Toole Bridge). The proposed development includes an upgrade of the existing bus priority and cycle facilities. The proposed development includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the proposed development bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle lane provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions. Moreover, pedestrian facilities will be upgraded, and additional signalised crossings be provided. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrians experience, an example of this can be seen in Donnybrook at Mulberry Lane.
ABP - 313509	Belfield / Blackrock to Dublin City Centre	Under Review	05/2022 (Lodged) Case is due to be decided by 04/2023.	The proposed development has an overall length of approximately 8.3km and will be comprised of two main alignments in terms of the route it follows, from Blackrock to the City Centre and along Nutley Lane. The Blackrock to City Centre section will commence on the R113 at Temple Hill, approximately 80m to the north of the R827 Stradbrook Road, travel along the N31 Frascati Road, the R118 Rock Road / Merrion Road / Pembroke Road, the R816 Pembroke Road / Baggot Street Upper / Baggot Street Lower, turn onto Fitzwilliam Street Lower and terminate at the junction of Mount Street Upper / Merrion Square South / Merrion Square East. The Nutley Lane section of the proposed development will commence at the tie-in with the signalised junction on the R138

Planning Reference	Address	Application Status	Decision date	Summary of development
				Stillorgan Road on the southern end of Nutley Lane, travel along Nutley Lane and terminate at the junction with the R118 Merrion Road. The route of the proposed development is shown in Image 1.1 in Chapter 1 (Introduction). The proposed development includes an upgrade of the existing bus priority and cycle facilities. The scheme includes a substantial increase in the level of bus priority provided along the corridor, including the provision of additional lengths of bus lane resulting in improved journey time reliability. Throughout the proposed development bus stops will be enhanced to improve the overall journey experience for bus passengers and cycle facilities will be substantially improved with segregated cycle lane provided along the links and protected junctions with enhanced signalling for cyclists provided at junctions. Moreover, pedestrian facilities will be upgraded, and additional signalised crossings will be provided. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrians experience, an example of this can be seen in Ballsbridge, particularly at the Herbert Park / Pembroke Road junction.
ABP - 317679	Ringsend to Dublin City Centre	Under Review	28/07/2023 (Lodged) Case is due to be decided by 14/02/2024	The proposed development has an overall length of approximately 4.3km (2 x 1.6km along the River Liffey Quays and 1.1km cycle lane through Ringsend and Irishtown to Sean Moore Road) and is routed along the north and south quays of the River Liffey, linking the city centre with the Docklands and an onward cycling connection to Ringsend and Irishtown, all within the County of Dublin and within the Dublin City Council (DCC) administrative area. The proposed development includes priority for buses along the entire length of the north quays from Talbot Memorial Bridge to the 3Arena at the Tom Clarke East Link Bridge, consisting of dedicated bus lanes in both directions, which will require the relocation of both pairs of Scherzer Bridges along the north quays. Bus priority will also be achieved on the south quays through the provision a new opening bridge across the River Dodder (via the Dodder Public Transport Opening Bridge (DPTOB)) as well as the provision of intermittent sections of bus lane to ensure bus priority on the approach to all major junctions. Full bus lane provision on the south quays is not considered necessary in the context of the layout of the traffic cells and existing one-way restrictions, which prevent congestion developing. Eastbound buses will use the north quays only between the Customs House and the Samuel Becket Bridge, with eastbound buses proceeding on both quays from this point to the Tom Clarke East Link Bridge. Westbound buses will use the full length of both quays. Segregated two-way cycle lane will be provided along the quaysides (campshires) on both sides of the River Liffey. A continuation of the two-way cycle lane on the south quays will extent through Ringsend and Irishtown towards Sandymount Strand and the Poolbeg peninsula. The route will run via quiet streets at Pembroke Cottages, across Cambridge Road, then through Ringsend Park as a shared path with pedestrian priority, and a cycle lane along the northern side of Strand Street and Pembroke Street in Irishtown to the junction of Sean Moore Road and Beach Road. A spur cycle lane will be provided towards the Poolbeg Strategic Development Zone (SDZ) lands via Irishtown Stadium and Bremen Road. Shared use symbols will also be installed along York Road and Pigeon House Road to provide a second

Planning Reference	Address	Application Status	Decision date	Summary of development
				alternative route towards the Poolbeg SDZ lands. This road has recently been closed to through traffic and is suitable for shared use. Pedestrian facilities will be upgraded, and additional controlled and uncontrolled crossings will be provided at side roads, road crossings, and at junctions. In addition, urban realm works will be undertaken at key locations with higher quality materials, planting and street furniture provided to enhance the pedestrian experience. Examples of such works can be seen at the pair of Scherzer Bridges at Custom House Quay and North Wall Quay as well as the junction of North Wall Quay and Excise Walk. Pedestrian Boardwalks are proposed at Excise Walk and also at the former DCC Dublin Docklands offices at Custom House Quay to enhance the pedestrian environment.
APB - 311027	N3 between the M50 and Clonee	Under Review	29/07/2021 (Lodged) Consultation has yet to be concluded	Proposed development of a multi-modal transport scheme along a section of the N3 between the M50 and Clonee.
FCC - 312131	Townlands of Clonshagh, Dubber and Newtown, County Fingal and Dublin City	Under Review	07/12/2021 (Lodged)	Greater Dublin Drainage (GDD) consisting of a new wastewater treatment plant, sludge hub centre, orbital sewer, outfall pipeline and regional biosolids storage facility.
DCC - 2870/17	Royal Canal, Phibsborough to Ashtown	Grant Permission	2018	The proposed works shall comprise the construction of c. 4.3 km of cycle and pedestrian lane from Phibsborough Road, Dublin 7 - Cross Guns Bridge to Ashtown, Dublin 15 along the northern towpath. The works traverse past Broome Bridge (Protected Structure) and H.S. Reilly's Bridge (Protected Structure). A Toucan (pedestrian and cycle) crossing is proposed at Broombridge Road/ Broome Bridge.
DCC	Lands at Jamestown Road, St Margaret's Road / McKee Avenue, Finglas, Dublin 11	Masterplan Approved	07/2023	Jamestown Master Plan. Development Plan for 43 hectares of Jamestown Industrial Estate lands at Jamestown Road, St Margaret's Road / McKee Avenue, Finglas, Dublin 11. The Masterplan sets out the following detail to inform the sustainable and sequential regeneration and development of the lands: Urban Structure; Green infrastructure and open space; Built form and design; Land use and activity; and Phasing and sequencing

Planning Reference	Address	Application Status	Decision date	Summary of development
DCC	Lands at Ballyboggan	Consultation yet to be concluded	n/a	Dublin City Council's Ballyboggan Local Action Plan. It is proposed that the draft LAP boundary encompass the various business parks and industrial estates at this location, as well as the Royal Canal corridor and lands to the south on Bannow Road, including Broombridge Station / Luas Depot, TU Dublin's Broombridge Sports Complex and the City Council's maintenance depots. This will provide an important context for the LAP and will help ensure that new development is well integrated into the existing area so that established communities can also benefit from the delivery of new infrastructure.
FCC - 3364/23	Manhattan Peanuts Ltd, McKee Avenue, Finglas, Dublin 11, D11 F654	Grant Permission	10/11/2023	The proposed development will consist of an extension to the existing food production and warehouse building at Manhattan Peanuts Ltd comprising an additional floor area of 1,913m^2 and associated external amendments. Works to facilitate the proposed extension include the removal of the existing bin store on site and the removal of the existing sunken ramp and loading bay located to the south-east of the existing warehouse building. The proposed extension will provide for: (i) 1,252m^2 of additional floor area at ground floor level, comprising warehouse space, a packing room, reception area, storage space, a charging room, plan room and new lift and stair cores; (ii) 26m^2 of additional floor space at mezzanine level, comprising a clean room; (iii) 321m^2 of additional floor space at first floor level, comprising a canteen room, toilet facilities, storage space, office space and a meeting room; (iv) 314m^2 of additional floor space at second floor level, comprising storage space, office space with access to a balcony area and a boardroom. Other works proposed onsite include: (v) provision of a new sunken loading bay, loading area and access ramp at ground floor level, to the south-east of the proposed extension; (vi) the provision of an additional 23 car parking spaces (including two accessible parking spaces and three EV charging spaces) and five new truck parking spaces at surface level; (vii) provision of a new secure bicycle shelter located adjacent to the southern site boundary; (ix) provision of new permeable asphalt and grasscrete surfaces surrounding the proposed new extension; (x) provision of a staff courtyard area to the south of the proposed extension; (xi) partial recladding of existing warehouses and the provision of new solar panels to the roof level of the proposed extension; (xii) boundary treatments, hard and soft landscaping, foul and surface water drainage and all associated site development works necessary to facilitate the development.
ABP-310350-21	Charlestown Place, St.	Under Review	02/10/2023	The development will consist of a total of 55,523 m^2 (gross floor area – GFA) in 4 blocks (Blocks 1 – 4) including: 590 residential units comprising 234 one-bed units, 316 two-bed units and 40 three-bed

Planning Reference	Address	Application Status	Decision date	Summary of development
RP06F.317218	Margaret's Road, Charlestown, Dublin 11			units (totalling 53,881m^2), non-residential floorspace including two retail/ commercial units (350m^2), four offices suites (224m^2), a health/ medical centre (526m^2) and a creche (542m^2) all totalling 1,642 m^2 and all associated roads, streets, public spaces and services infrastructure. Blocks 1 and 2 are located above a shared single level basement with Block 4 also above a single level basement. The development is described as follows on a block-by-block basis: - Block 1 (19,821m^2 GFA): 211 apartment units (comprising 91 one-bed units, 106 two-bed units and 14 three-bed units) with ancillary accommodation, terraces, balconies and a roof garden in a 2 to 10 storey block. Block 1 ground floor level includes a retail/ commercial unit (170 m^2), three offices suites (160 m^2) and a creche (542 m^2) with external play area at ground and first floor levels all fronting onto a proposed pedestrian boulevard. Block 2 (18,209m^2 GFA): 184 apartment units (comprising 57 one-bed units, 123 two-bed units and four three-bed units) with ancillary accommodation, terraces, balconies and a roof garden in a 2 to 7 storey block. Block 2 ground floor level includes a retail/ commercial unit (180 m^2), an office suite (64m^2) and a health/ medical centre (526m^2) all at ground floor level fronting onto the proposed pedestrian boulevard. Block 3 (8,021m^2 GFA): 95 apartment units (comprising 54 one-bed units, 34 two-bed units and 7 three-bed units) with ancillary accommodation, terraces and balconies in an 8-storey block. Block 4 (9,472m^2 GFA): 100 apartment units (comprising 32 one-bed units, 53 two-bed units and 15 three-bed units) with ancillary accommodation, terraces, balconies and a roof garden in a 2 to 6 storey block. Vehicular access to serve the proposed development will be provided from Charlestown Place via the southern arm of the existing signalised junction which is proposed to be upgraded. The existing pedestrian access from the Charlestown Shopping Centre across Charlestown Place is proposed to be relocated to the west to align with the proposed internal pedestrian boulevard within the current application site and the existing internal street within the Charlestown Centre. Permission is also sought for associated reconfiguration of the central median on Charlestown Place and the existing footpaths, cycle lane, bus stops, taxi rank and hard and soft landscaping on the northern and southern edges of Charlestown Place and south of the Charlestown Shopping Centre. Pedestrian and cycle access is also proposed via a new entrance on St. Margaret's Road. Provision is also made for vehicular access from Charlestown Place through the site to McKelvey Celtic AFC playing pitch at the southeastern corner of the site including relocation of the existing gated entrance to McKelvey Celtic AFC playing pitch and a future access to the undeveloped greenfield site to the west. Permission is also sought for 515 car parking spaces and 1,068 cycle parking spaces at basement and surface levels, bin storage areas, ESB substations, plant and public lighting, boundary treatments, surface water drainage infrastructure including connection to the attenuation tank permitted by Reg. Ref. F19A/0146 and located beneath a proposed central landscaped public open space of c.4,737m^2, a linear public open space of c.1,848m^2 and all associated site development and infrastructure works including demolition of the existing temporary surface car park.

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APB - 318677	Townlands of Fieldstown, Clonmethan Electoral District, Co. Dublin	Under Review	12/12/2023 Lodged	110kV Air Insulated Switchgear (AIS) tail-fed substation compound, combined with a 110kV underground cable connection to Finglas.
APB - 318454	52 & 54 Quarry Road, Cabra, Dublin 7	Under Review	Case is due to be decided by 27/03/2024	Demolition of existing structures and construction of a mixed commercial / residential development of 64 units in 3 blocks.
APB - 318316	43 to 60A O'Connell Street Upper, rear of 59 - 60 O'Connell Street Upper, 13 & 14 and 14 - 15 Moore Lane, the public realm associated with O'Rahilly Parade, Moore Lane, Henry Place and a portion of O'Connell Street Upper, Dublin 1.	Under Review	Case is due to be decided by 05/03/2024	Protected Structures: A mixed-use development and associated site works at a site, 'Dublin Central - Site 2' (c. 1.33 Ha). An Environmental Impact Assessment Report (EIAR) accompanies this application. See planning authority website for full description and full site address.
ABP - 318268	61, O'Connell Street Upper, Dublin 1	Under Review	Case is due to be decided by 29/02/2024	Protected Structure: Refurbishment and reuse of commercial building to include restaurant, apartments, gym, pedestrian link and associated site works.
ABP - 318180	Cruiserath Road, Dublin 15	Under Review	Case is due to be decided by 15/02/2024	Construction of data centre and associated site works. An Environmental Impact Assessment Report (EIAR) has been submitted to the planning authority with the planning application.
ABP - 317818	Parkview, Ballymun, Dublin 11	Grant Permission	21/05/2024	Construction of 32 houses, 2 sheltered housing units, single storey creche and all associated site works.

Planning Reference	Address	Application Status	Decision date	Summary of development
ABP - 317687	Lands north of Meakstown Cottages access road, Dubber, Co. Dublin	Under Review	Case is due to be decided by 04/12/2023	Construction of an eco-self-storage facility comprising 300 storage containers and all associated site works.
ABP - 317480	Kilshane Road, Kilshane, Finglas, Dublin 11	Grant Permission	16/05/2024	Demolition of buildings, road improvement works and construction of gas turbine power generation station with all associated site works. An Environmental Impact Assessment Report has been prepared. EPA licence is required.
ABP - 316138	Townlands of Collinstown, Coultry, and Huntstown Co. Dublin and in the townlands of Pickardstown and Portmellick, Co. Dublin	Grant Permission	17/04/2024	Development on 4 sites located entirely within lands in the ownership of Dublin Airport, including 2 sites at the airfield in the townlands of Collinstown, Coultry, and Huntstown, Co. Dublin. The proposed development will consist of the construction of a subterranean underpass of runway 16/34 and all associated and ancillary works. The planning application is accompanied by an EIAR and an NIS.
ABP	Finglas, Co. Dublin	Currently in Step 4. Step 4 determines the best performing option and the precise route where the project will be built. Next Step will be to Apply for planning permission	n/a	Powering Up Dublin programme: installing over 50km of electrical cables across the city to strengthen key electricity infrastructure in Finglas Co. Dublin.
3674/19	St. Finian's National School, Glenties Park, Rivermount,	Grant Permission	26/09/2019	Planning permission is sought for the construction of a single storey 154m^2 classroom extension to the east of existing school to accommodate one classroom with en-suite w.c.'s, an accessible w.c./shower and two resource rooms, internal alterations and associated site works.

Planning Reference	Address	Application Status	Decision date	Summary of development
	Finglas, Dublin 11			
2056/19	Educate Together, Rathborne Vale, Ashtown, Dublin 15	Grant Permission	24/05/2019	The development will consist of the construction of a three storey, split level school building, Pelletstown ETNS (RN 20392I). It will facilitate a 16-classroom primary school with a two classroom Special Needs unit. The design also includes a general-purpose hall, support teaching spaces and ancillary accommodation. The proposed school will be three storeys with a single storey element and a roof top play space. The school also incorporates a rooftop play space, ground floor external play areas and special needs unit play-spaces and an external ball court. There will also be associated car parking, bicycle shed, access road, landscaping, connection to public services and all associated siteworks.
2595/20	Rathborne Vale, Ashtown, Dublin 15	Grant Permission	17/07/2020	The development will consist of the construction of a part 2-storey, part single-storey prefabricated temporary school comprising of 12 classrooms and an administration block. The works will include a temporary carpark, bike parking, landscaping and associated boundary treatments. The Temporary School is for a maximum period of 2 years while the permanent Educate Together National School (RN203921) (granted under P0354) is constructed.
2874/20	Site adjacent 37, 38 Barnamore Park, and 41, 42 Barnamore Grove, Finglas, Dublin 11	Grant Permission	10/08/2020	Planning permission for development which will consist of the removal of the existing road and footpaths, the construction of two detached two-storey three-bedroom house (two houses) and ancillary site development works including new site boundaries and on-site parking for dwellings with new vehicular access to each house from Barnamore Grove and Barnamore Park respectively, rerouting/modifying existing services including sewers crossing the site.
2477/20	Erin's Isle GAA Club, Farnham Drive, Finglas, Dublin 11	Grant Permission (Construction started December 2022)	01/07/2020	Planning permission for new GAA pitch with six 18m high floodlights and new 2.5m high boundary wall to western boundary at Farnham Drive circa 180m with 5m high safety netting and ancillary works including new kit store, generator and car parking 22 spaces and associated site works.
4764/19	St. Michael's Holy Faith Secondary School, Wellmount Road, Finglas, Dublin 11	Grant Permission	21/02/2020	The development will consist of construction of two-storey standalone extension of approximately total 395m^2, to the rear (North) of the existing school to provide two technical rooms at ground floor and two classrooms at first floor together with ancillary spaces and all associated works.

Planning Reference	Address	Application Status	Decision date	Summary of development
4503/19	103, North Road, Finglas, Dublin 11	Grant Permission	19/01/2020	Planning permission is sought at the rear of 103 North Road, Finglas, Dublin 11 for the construction of two two-storey dwellings to consist of at ground level; kitchen/dining & living area at first floor level two bedrooms & office, vehicular access to North Road & associated site works.
2683/21	Glenavon House, 46 Ballymun Road, Glasnevin, Dublin 9	Grant Permission	09/03/2022	Permission for development at a site (c.039Ha) at Glenavon House, 46 Ballymun Road, Glasnevin, Dublin 9. The subject site is generally bounded to the west by Ballymun Road and Clonmore Court apartments, to the north by Glenavon Court and Hillcrest Court apartments, to the east by the rear gardens of houses on St. Mobhi Road, and to the south by Mobhi Court apartments and houses at The Haven. The development will consist of the construction of a 5 to 6 storey apartment building (total GFA c.5,330m^2 excluding car park), partially over basement, accommodating 52 residential units (13 1-bed apartments, 9 2-bed apartments, 17 2-bed duplex apartments, 8 3-bed apartments and five 3-bed duplex apartments), all with private balconies on the east or west elevation. And, all associated and ancillary site development, landscaping and boundary treatment works, including Demolition of existing habitable house and ancillary outbuildings. Modification of existing vehicular and pedestrian site entrance to Ballymun Road. One car share space at surface level. 37 car parking spaces at basement. 80 bicycle parking spaces. ESB substation and switch room. Solar panels and green roof.
2944/21	Scoil Chiarain Special School, St Canice's Road, Glasnevin, Dublin 11, D11 VK64	Grant Permission	03/08/2021	The development consists of the construction of a new two-storey school for pupils with special educational needs with a gross floor area of approximately 4,226m^2 and the phased demolition of the existing single storey school building (approximately 1,764m^2). Proposed accommodation consists of 24 classrooms, a general-purpose room, a library/resource room, communal teaching spaces, specialist teaching spaces and ancillary accommodation. The existing site entrance off St. Canice's Road is to be altered with a new one-way access system serving 50 on site car parking spaces, six bus parking spaces and 11 bus set down spaces, pedestrian pathways and a new gated vehicular exit and pedestrian entrance also to St. Canice's Road. Provision of a ball court, play areas, a bin store & heat pump enclosure, roof-mounted solar photovoltaic panels, a bicycle shelter with 24 bicycle spaces, foul drainage connection, surface water attenuation, signage, landscaping, boundary treatments, and all associated site works on overall site area of approximately 1.6 hectares.
F18A/0718	Charlestown Centre, Charlestown Place & St Margaret's Road, Charleston, Dublin 11	Grant Permission	15/02/2019	Development on this site (3.89ha.) (lands comprising existing podium area north of Charlestown Place, west of the Charlestown Centre and east of McDonalds). Modifications to the Phase 2B application (Reg. Ref. F18A/0025) to provide an additional 72 apartment units bringing the overall number of apartment units on the Phase 2B site 319 units. The modified Phase 2B will comprise a total of 34.363 m^2 gross floor area incorporating 319 apartments (29,492m^2), retail floorspace (4,544m^2) and ancillary areas (327m^2) in six blocks ranging in height from two to six storeys with seven storey elements. A 5-year permission is sought.

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				The accommodation provided in the modified Phase 2B development is described on a block-by-block basis as follows: Building 100: 6 storey building (9,871m^2) incorporating 123 apartments (11 studios, 71 one-bed units, 41 two-bed units) with associated private balconies, roof terrace with stair lift/stair core access, ground floor bicycle storage (156 spaces) and all associated ancillary areas. Building 200: 6 storey building (4,981 m^2) incorporating 46 apartments (six one-bed units, 17 two-bed units and 23 three-bed units) with associated private balconies, roof terrace with lift/stair core access and all associated ancillary areas. Building 300: Six storey building (4,792m^2) incorporating 44 apartments (six one-bed units, 17 two-bed units and 21three-bed units) with associated private balconies, roof terrace with lift/stair core access and all associated ancillary areas. Building 400: 3 to 6 storey building (4,450m^2) incorporating 48 apartments (18 one-bed units and 30 two-bed units) with associated private balconies, roof terrace with lift/stair core access and all associated ancillary and plant areas. Building 500: 2 to 6 storey building (5,367 m^2) incorporating 58 apartments (25 one-bed units, 33 two- bed units) with associated private balconies, roof terrace with lift/stair core access, a ground floor retail/commercial unit (194 m^2) and all associated ancillary areas. Building 550: 2 storey building (4,471 m^2) incorporating three retail commercial units (4,544 m^2), residents' communal room (121m^2), ground floor bicycle storage (194 spaces) and all associated ancillary areas. As per Reg. Ref. F18A/0025, buildings 500 and 550 form the southern and western edges of a new public plaza (Charlestown Square) which will be bound to the east by the existing Charlestown shopping Centre and to the north by the existing cinema and leisure centre block. Hard and soft landscaping at podium and roof levels have been revised and upgraded. Revisions to the permitted basement car park and services area at Basement Levels -1 and -2 comprise alterations to the lift/stair cores, car parking and circulation routes to facilitate the modifications to buildings above and addition of apartment storage areas. The new car and cycle parking arrangement for Phase 1 and Phase 2 provides a total of 1,358 basement and 112 surface car parking spaces. A total of 630 bicycle parking spaces are provide comprising 350 spaces in buildings 100 and 550, 198 external podium level spaces and 82 spaces at basement level -2 connections to public services, signage and all ancillary site and development works including access from the existing connections to Charlestown Place and St. Margaret's Road will be as permitted under Reg. Ref. F18A/0025.
F19A/0033	Site D8, Horizon Logistics Park, Harristown, St.	Permission Granted	03/05/2019	The erection of a warehouse/logistics unit (D8 14,933m²) on its own self-contained site with dedicated service yard, loading docks, perimeter fencing, 2 storey ancillary offices, 150 car parking

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	Margarets, Swords, Co. Dublin.			spaces and associated site development works to include an ESB substation with switch room (38m²). All of the above on a site of 3.395ha.
FW20A/0021	Dublin Inland Port, South of Dublin Airport Logistics Park, Off Maple Avenue, Coldwinters, St Margarets, Co Dublin	Permission Granted	07/04/2020	The development will consist of storage and logistic facilities comprising yards, warehouses, workshops and ancillary offices at Plots 1, 3, 4, 5, 6, 7, and 9 and amendment to permitted development (Reg. Ref. FW19A/0101 and F18A/0139) at Plot 8 and internal road network at Dublin Inland Port. Planning permission is sought for the following development: Plot 1 (c.1.54ha) comprising a warehouse building including an ancillary office of c.2433m^2 and c.10m in height with a sign on building and c.280 m^2 photovoltaic panels on roof and storage yard with approximately 50 lorry spaces. Plot 3 (c.0.87ha) comprising an office building of c.144m^2 and c. 4.6m in height with a sign on building and c.60 m^2 photovoltaic panels on roof and storage yard with approximately 24 lorry spaces and approximately 205 car storage spaces. Plot 4 (c.2.99ha) comprising a warehouse building including workshop, store, substation and ancillary office of c.8,061m^2 and c.15m in height and c.680m^2 photovoltaic panels on roof and storage yard with approximately 70 lorry spaces and approximately 96 car storage spaces. Plot 5 (c.1.16ha) comprising a warehouse building including workshop and ancillary office of c.735 m^2 and 10.2m and an office building of c.300m^2 and c.5.8m in height with a sign on building, and storage yard with approximately 28 lorry spaces and including vehicle washing area and fuel storage area. Plot 6 (c.0.31ha) comprising a warehouse and store building including ancillary office of c.569 m^2 and 10.2m in height with a sign on building and c.92m^2 photovoltaic panels on roof and storage yard with approximately seven lorry spaces. Plot 7 (c1.2ha) comprising a warehouse building including ancillary office of c.1,293m^2 and c.10m in height with a sign on building and c.220m^2 photovoltaic panels on roof and storage yard with approximately 42 lorry spaces. Plot 9 (c.0.47ha) comprising a warehouse building including ancillary office of c.569 m^2 and 10.2m in height with a sign on building and c.92 m^2 photovoltaic panels on roof and storage yard with c.8 lorry spaces. The proposed development across the seven plots will also include: 134 car staff parking space and 112 bicycle parking spaces; high strength surface treatment including underground drainage, attenuation, water services and electricity infrastructure including two substations of c. 14 m^2 and c.26 m^2 respectively; 3m high wall and internal 4.5m electrified fence along the boundary of Plot 4

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				and 2.4m high fences along other internal plot boundaries; gated vehicle and pedestrian accesses to each plot; 3m high fencing along the external site boundaries; CCTV poles (approximately 7.5m) and new lighting (including eight lighting towers (approximately 30m)); and all associated landscaping, plant, site and construction works. The application seeks to amend Plot 8 as permitted under Reg. Ref. FW19A/0101. The yard within Plot 8 will be extended to the north and east and the plot will increase in area from 3.1 to 3.5ha. The application also seeks to amend the internal road network as permitted under Reg. Ref. FW19A/0101 and Reg. Ref. FW18A/0139. The permitted (Reg. Ref. FW18A/0139) Plot 1 entrance has been moved further south and the permitted (Reg. Ref. FW18A/0139) entrance to Plot 4 to the west is now removed. The permitted (Reg. Ref. FW19A/0101) Plot 4 entrance to the east has been widened. All development to take place on a site of c. 10.4 ha. The application is for a 10-year planning permission. An Environmental Impact Assessment Report has been prepared in respect of the proposed development.
FW20A/0211	Lands between the N2 and R135 (north of the N2-R135 link road), at Coldwinters, St. Margarets, Co. Dublin	Permission Granted	13/04/2021	The development will consist of three buildings for industrial/warehouse/logistics use (Units 3,4 and 5) with gross floor area of 24,356m^2. Each building will measure 18.1m high (at parapet level) and have 2 storey ancillary offices. Elevational signage will be provided. The units will form Phase 2 of the Vantage Business Park, with Phase 1 to the south (units 1 and 2) under construction. The proposed development includes 39 HGV parking spaces, 224 car parking spaces, 134 cycle parking spaces, 29 dock levellers and 7 grade loading bays. All associated site works including diversion of existing foul rising main, boundary treatments, landscaping, service yards, internal road and footpaths, swales, lighting, three free standing signs, signage at entrance, refuse storage, substation, foul pumping station, extension of foul infrastructure from Phase 1, modified vehicular entrance off the R135 (including new entrance gate and pillars) and dedicated new footpath and Cycle lane along the east side of the R135.
FW20A/0187	Horizon Logistics Park (Site N), Off the R108, Harristown, St. Margarets, Swords, Co. Dublin.	Permission Granted	23/06/2021	The proposed development consists of the following: The construction of eight light industrial/warehouse (including wholesale use) / logistics units including ancillary office use and entrance/reception areas over two levels, with maximum height of c. 15.5 m and combined total gross floor area (GFA) of 39,732m^2 (units N1-N8); The demolition of two existing agricultural sheds and the construction of a link road (Estate Road 4), extending south from the proposed development to connect with existing road infrastructure (Sillogue Green);

Planning Reference	Address	Application Status	Decision date	Summary of development
				The implementation of a new internal road network with all access points, internal access roads and footpaths, service yards and access roads, cycle lane and landscaping; The construction of two new roundabouts on Estate Road 4, the construction of Estate Road 3 branching west and the extension of Estate Road 2 which currently serves Horizon Logistics Park; The development includes two ESB substation buildings and switch rooms (with a combined GFA of 68m^2), service yards including loading bays, bin storage areas and a total of 395 car parking spaces, eight motorcycle parking spaces and 202 cycle parking spaces; The proposal includes landscaping and planting, boundary treatment, lighting, security fencing and all associated site services and development works including underground foul and storm water drainage network and sustainable urban drainage systems, all on a site of 14.64 hectares.
FW20A/0097	Plot 2 Dublin Inland Port South of Dublin Airport Logistics Park, Off Maple Avenue, Coldwinters, St Margaret's, Co. Dublin	Permission Granted	18/08/2020	Fingal County Council. Dublin Port Company intends to apply for planning permission for development and amendments to development permitted under Reg. Ref. F18A/0139 /, ABP Ref. 302361 – 18 as amended, at Plot 2, Dublin Inland Port, south of Dublin Airport Logistics Park, off Maple Avenue, Coldwinters, St. Margaret's, County Dublin. The development and amendments will consist of: omission of permitted warehouse and maintenance building (c.1,050 m^2, c.16m in height), relocation and reconfiguration of permitted office building (c.177m^2, 4.9m in height) including photovoltaic panels (c.19.2m^2) and signage (2m^2), relocation and reconfiguration of permitted bunded fuel storage, relocation and reconfiguration of staff car park to provide 21 spaces, relocation and reconfiguration of staff bicycle parking to provide six spaces, relocation of permitted vehicle washdown facility, provision of worker's building (c.127.6m^2, c 4.9m in height) including photovoltaic panels (c.14.4m^2) and signage (1 m^2), provision of toilet block (c.20 m^2, 4.5m in height) including photovoltaic panels (c.2 m^2), relocation and reconfiguration of refrigerated gantry (c.304 m^2 and c.13m in height), provision of truck off-loading area including pedestrian walkway, minor amendments to the hard surfacing, lighting (to provide in total three 30m high masts and eight 10m lighting columns), CCTV (to provide in total four 7.5m CCTV poles), foul drainage, surface drainage and potable water infrastructure and all associated works. All development to take place on a site of c. 1.79ha. The Planning Application may be inspected or purchased at a fee not exceeding the reasonable cost of making a copy at the offices of the Planning Authority during its public opening hours and a submission or observation may be made to the Planning Authority in writing on payment of the prescribed fee within the period of 5 weeks beginning on the date of receipt by the authority of the application.
FW21A/0180	Lands at Horizon Logistics Park (known as Site P1), Off the	Permission Granted	22/02/2022	The proposed development consists of the following: The construction of a light industrial/warehouse (including wholesale use) / logistics building (Unit P1) with a gross floor area (GFA) of 6,593m^2 (including 1,064m^2 o ancillary office space and reception areas over two levels). The proposed building will have a maximum height of 11 metres.

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	R108, Townlands of Merryfalls, St. Margarets, Swords, Co. Dublin.			Provision of 66 car parking spaces, two motorbike parking spaces, 33 bicycle parking spaces, 26 van parking spaces, and 30 HGV parking spaces. Provision of an ESB substation and switch room (36m^2), security hut (18m^2) three cycle shelter structures, two smoking shelters, bin store (10m^2), recycling store (17m^2), a standalone maintenance/services building (67m^2). Provision of service yard and HGV and van loading/unloading areas with associated loading bays to the north, south and west of the proposed warehouse/logistics building. Provision of access arrangements to the proposed development including an extension of permitted Estate Road Number 2, connecting to the road infrastructure permitted under Reg Ref FW20A/0187, along with pedestrian/cycle infrastructure to Estate Roads Number 2 and 3. Provision of signage zones and stand-alone totem sign associate with the proposed unit. The proposal includes landscaping and planting, boundary treatments, site lighting, three flag poles, security fencing and gates, and all associated site services and development works including underground foul and storm water drainage network and sustainable urban drainage systems. The proposed development is located to the sought of the development permitted under Reg. Ref. FW20A/0187 (known as Site N development). A Natura Impact Statement (NIS) will be submitted to the Planning Authority with this planning application.
FW21A/0144	Townlands of Johnstown, Huntstown, Coldwinters & Balseskin, at Blanchardstown and Finglas, Co. Dublin, (Southeast of Huntstown Power Station, Johnstown, Dublin to Finglas 220kV Substation, Balseskin).	Permission Granted	5/10/2021	The development will consist of the installation of electrical infrastructure between Finglas substation and Huntstown Power Station to facilitate the retirement of existing Electricity Supply Board overhead powerlines and facilitate site clearance for the future development of a data centre and substation (subject to separate planning applications). This will include (i) the installation of approximately three underground cable circuits of 1.2km length (110kV) and one circuit 1.2km length (38kV) and associated underground ducting, joint bays and infrastructure between the existing ESB Finglas substation and an agreed location within Huntstown Power Station (ii) installation of one c.28m double circuit 110kV cable end tower and one c.17 single circuit 110kV angle mast (iii) removal of 10 existing 110kV timber polesets, nine existing 38kV timber polesets, three 38kV lattice steel tower & associated overhead line electrical infrastructure; all associated and ancillary site development, landscaping and construction works, all within the townlands of Johnstown, Huntstown, Coldwinters & Balseskin at Blanchardstown & Finglas, County Dublin

Planning Reference	Address	Application Status	Decision date	Summary of development
FW21A/0151	Lands adjacent to Huntstown Power Station, North Road, Finglas, Dublin	Permission Granted (Currently undergoing an appeal)	Original decision granted on 20/4/2022 Project under appeal as of 16/5/2022	Demolition of two existing residential dwellings and ancillary structures to the east of the site (c.344qm total floor area); Construction of two data hall buildings (Buildings A and B) comprising data hall rooms, mechanical and electrical galleries, ancillary offices including meeting rooms, workshop spaces, staff areas including break rooms, toilets, shower/changing facilities, storage areas, lobbies, outdoor staff areas, loading bays and docks, associated plant throughout, photovoltaic panels and screened plant areas at roof levels, circulation areas and stair and lift cores throughout; External plant and 58 emergency generators located within a generator yard to the east and west of Buildings A and B at ground level. The area is enclosed by a c.6.5m high louvred screen wall; The proposed data halls (Buildings A and B) are arranged over 3 storeys with a gross floor area of C.37,647 m^2 each; The overall height of the data hall buildings is c28m to roof parapet level and c32m including roof plant, roof vents and flues. The total height of Buildings A and B does not exceed 112m OD (above sea level); The proposed development includes the provision of a temporary substation (c.32 m^2), water treatment building (c. 369 m^2 and c.7.7m high), seven water storage tanks (2,800m3 in total and c.6.4m high each), two sprinkler tanks (c.670m3 each and c.7.9m high each) with two pump houses each (c.40 m^2 and c. 6m high each); The total gross floor area of the data halls and ancillary structures is c.75,775 m^2; All associated site development works, services provision, drainage upgrade works, two attenuation basins, landscaping and berming (c.6m high), boundary treatment works and security fencing up to c.2.4m high, new vehicular entrance from the North Road, secondary access to the south west of the site from the existing private road, all internal access roads, security gates, pedestrian/cyclist routes, lighting, two bin stores, two bicycle stores serving 48 bicycle spaces, 208 parking spaces including 10 accessible spaces, 20 electric vehicle charging spaces and eight motorcycle spaces; Existing electricity overhead lines traversing the site will be undergrounded under concurrent application Ref. FW21A/0144; A proposed 220kv substation located to the southwest of this site will be subject of a separate Strategic Infrastructure Development application to An Bord Pleanála under section 182A of the Planning and Development Act 2000 (as amended);
FW22A/0061	Site Nos. 12 & 13, Stadium Business Park, Ballycoolin Road, Dublin 11	Permission Granted	26/05/2022	For a development comprising: (i) construction of five industrial / warehouse / logistics units contained within three blocks consisting of: (a) Block A, containing Unit 1 and Unit 2, warehousing / distribution / logistics units comprising 2,011.m each; (b) Block B, containing Unit 3 and 4, industrial / warehousing units comprising 1,381 m^2 each; and Block C, containing Unit 5, a warehousing / distribution / logistics unit comprising 1,635 m^2. Each unit will be provided with ancillary office space and staff facilities; (ii) Creation of vehicular access point to the west of the site to provide for public

Planning Reference	Address	Application Status	Decision date	Summary of development
				access, repositioning of two existing vehicular access points & the provision of a new vehicular access point, all three access points to the north for servicing and deliveries; (iii) 135 car parking spaces (including six EV spaces and five reduced mobility spaces) and 80 bicycle parking spaces will serve the development; and (iv) The development will also include all associated SuDS drainage, landscaping, boundary treatments, lighting, CCTV, signage and site development works necessary to facilitate the development.
ABP - 319083	284 Glasnevin Avenue, at the corner of Glasnevin Avenue and Grove Road, Finglas, Dublin 11, D11 CK25	Under Review	Case is due to be decided by 20/06/2024	4.8m high slim shrouded pole concealing telecommunications antennas fixed to the northern apex wall, replacement of existing cabinets and dishes and with other associated works.
ABP - 319103	Site to the north of Hangar 6 and North Apron, west of Castlemoate Road and south of Gatepost 1B, in the townlands of Cloghran and Corballis, Dublin Airport, Co. Dublin.	Under Review	Case is due to be decided by 28/05/2024	Construction of a single storey, part two-storey hangar for 4 aircrafts, associated facilities and office area. Demolition of internal airport roadway on site access arrangements and site development works. The proposed development does not propose any increase in passenger or operational capacity at Dublin Airport. A Natura Impact Statement has been prepared.
ABP - 319282	Lands at Huntstown Townland and Coldwinters Townland, County Dublin	Under Review	Case is due to be decided by 16/07/2024	Construction of a materials recovery facility along with a food container cleaning plant and all associated site works. The materials recovery facility will require an EPA Industrial Emissions Licence. An Environmental Impact Assessment Report (EIAR) has been submitted with this application.
ABP - 319440	31 Dunsoghly Avenue, Finglas, Dublin 11	Under Review	Case is due to be decided by 06/08/2024	Construction of a single storey flat roof link extension between main house and outbuilding in rear garden and retention of single storey pitched roof outbuilding as a living room, WC & bedroom extension to main house.

Planning Reference	Address	Application Status	Decision date	Summary of development
ABP - 319753	Adjacent to 18 Kilkieran Court, Cabra West, Dublin 7, D07 C9T3	Under Review	Case is due to be decided by 19/09/2024	Construction of a dwelling and all associated site works.
ABP - 319923	Lands at 'St. Joseph's House' and adjoining properties at Brewery Road and Leopardstown Road, Dublin 18	Under Review	Case is due to be decided by 03/10/2024	Demolition of properties and associated outbuildings, change of use of St. Joseph's House, construction of 463 apartments, childcare facility and associated site works.

5.4 Summary

The plans and projects listed above have the potential to have overlapping Construction Phases with the proposed Scheme and therefore, in the absence of mitigation measures, may result in potential in-combination effects on Natura 2000 sites.

The City and County Development Plans; Greater Dublin Drainage Strategy, Transport Strategy for Greater Dublin Area and River Basin Management Plan and other projects listed in Table 5-1 are considered in combination with the currently proposed Scheme in the Screening Assessment Section 6.2.7 below.

SECTION 6: SCREENING ASSESSMENT

6.1 Introduction

This screening exercise will focus on assessing the likely significant effects of the proposed Scheme on the Natura 2000 sites identified in Section 4, and listed below:

- North Dublin Bay SAC [000206];
- South Dublin Bay SAC [000210];
- Howth Head SAC [000202];
- Rockabill to Dalkey Island SAC [003000];
- South Dublin Bay and River Tolka Estuary SPA [004024];
- North Bull Island SPA [004006];
- Baldoyle Bay SPA [004016]; and
- North-West Irish Sea SPA [004236].

This section identifies the likely significant effects which may arise as result of the proposed Scheme. It then goes on to identify how these effects could potentially impact on the Natura 2000 sites listed above. The significance of likely effects is also assessed, with any potential in-combination effects also identified.

6.2 Assessment Criteria

6.2.1 Description of the individual elements of the proposed Scheme (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 sites

Potential adverse impacts that could cause a significant effect on the qualifying interests of the Natura 2000 sites, during the Construction and Operational Phases of the proposed Scheme, will impact on the sites via surface water pathways, groundwater pathways and land and air pathways. Surface water pathways can impact on surface water quality and surface water dependent habitats and species. Groundwater pathways can impact on groundwater quality and quality of groundwater dependent habitats and species. Land and air pathways can impact by direct physical disturbance and dust or other air-based emissions.

The proposed Scheme is predicted to have likely significant effects on the QIs / SCIs of six Natura 2000 sites, namely North Dublin Bay SAC, North Bull Island SPA, South Dublin SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA. Whereas the proposed Scheme is not predicted to have likely significant effects on the QIs / SCIs of the two remaining Natura 2000 sites, Howth Head SAC and Baldoyle Bay SAC. The rationale for including and excluding like significant effects via the main impact-receptor pathways is given in more detail in the following sub-sections.

6.2.2 Surface Water Impact Pathways

The site lies within the Water Framework Directive (WFD) catchment Liffey and Dublin Bay, and the sub-catchment Liffey_SC_070. The proposed Scheme shares the Tolka_SC_020 sub-catchment with South Dublin Bay and River Tolka Estuary SPA (Figure 6-1 overleaf). The proposed Scheme will use existing surface water drainage infrastructure within the urbanised environment wherever possible. However, within the green amenity / parkland areas the surface water run-off has the potential to enter the local watercourses, e.g., the River Tolka, where potential contaminants and sediment-loading may degrade the quality of the water, which will ultimately flow into the Dublin Bay and subsequently: North Dublin Bay SAC, North Bull Island SPA, South Dublin SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA Natura 2000 sites. Although Howth Head SAC is located in Dublin Bay, due to the elevation of the SAC's QIs above the coastal waters, there is no hydrological connection from the proposed Scheme to the SAC. The waters of the Baldoyle Bay SPA are located beyond the reasonable surface water impact pathway (distance) and as such no likely significant effects are predicted.

Therefore, in the absence of mitigation measures during the Construction Phase, likely significant effects are predicted for North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA via the surface water impact pathway. No likely significant effects are predicted for Baldoyle Bay SPA and Howth Head SAC.

Given the nature of the proposed Scheme and the existing and newly proposed surface water drainage infrastructure, and their integrated pollution and sediment filtering elements, likely significant effects are not predicted during the Operational Phase of the proposed Scheme.

Therefore, likely significant effects via surface water pollution events during the Operational Phase are not predicted for North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, North-west Irish Sea SPA, Baldoyle Bay SPA and Howth Head SAC, via the surface water impact pathway.

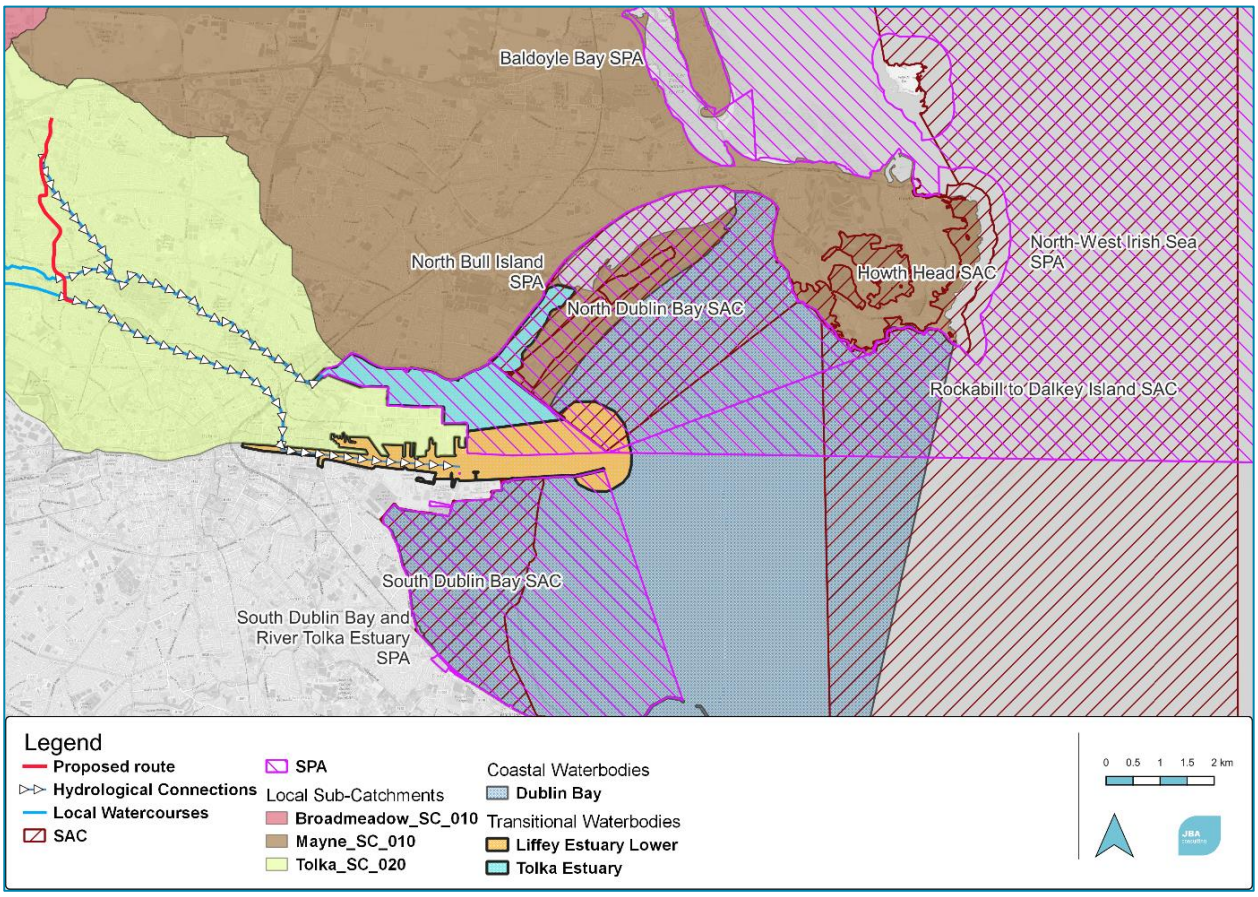


Figure 6-1: Proposed Scheme location and Natura 2000 sites, with local surface water sub-catchments and waterbodies (OSM, 2024)

6.2.3 Groundwater Impact Pathways

The groundwater body which underlies the proposed site is the Dublin groundwater body (IE_EA_G_008). The site shares this groundwater body with all of the Natura 2000 sites within the ZoI (Figure 6-2 overleaf). The underlying bedrock of the proposed site is comprised of dark grey to black, fine-grained, occasionally cherty, micritic limestones that weather paler, usually to pale grey. There are rare dark coarser grained calcarenitic limestones, sometimes graded, and interbedded dark-grey calcar. This bedrock is largely overlain with limestone till, with smaller linear pockets of limestone gravels and alluvial sediments (particularly within the Tolka Valley Park). There is generally a low sub-soil permeability throughout the boundary of the proposed Scheme (GSI, 2024). As result of the above characteristics the site's aquifer

vulnerability status ranges from ‘Moderate' to 'Rock at or near Surface or Karst', with the more vulnerable areas located within historic and existing river / stream valleys (Figure 6-3 overleaf).

The aquifer within the underlying bedrock is considered to be locally important, with moderate productivity, though only in local zones. Therefore, the aquifer has a limited and relatively poorly connected network of fractures, fissures and joints, giving a low fissure permeability which tends to decrease further with depth. Generally, the lack of connection between the limited fissures results in relatively poor aquifer storage and flow paths that may only extend a few hundred metres (GSI, 2024). This will result in water entering any groundwater bodies to be discharged into nearby water courses i.e. the Tolka River.

Therefore, likely significant effects via the groundwater pathway are not predicted during the Construction and Operational Phases of the proposed Scheme given the distance to North Dublin Bay SAC, North Bull Island SPA, Howth Head SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC, Baldoyle Bay SPA and North-west Irish Sea SPA.

Regarding the groundwater-to-surface water impact pathway, given the characteristics of the underlying aquifer, pollutants split on site and enter the groundwater will likely rapidly discharge to the nearby watercourses, i.e., the River Tolka and Bachelors Stream (GSI, 2024). Additionally, while earthworks within Tolka Valley Park may lead to the disruption of potentially hazardous materials within the historic landfill, which may go enter the ground--to-surface water pathway. Therefore, there is a potential groundwater-to-surface water pathway within the locality of the proposed Scheme.

Therefore, in the absence of mitigation measures, likely significant effects via the groundwater-to-surface water pathway are predicted during the Construction Phase for North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA. Whereas likely significant effects via the groundwater-to-surface water pathway are not predicted for Howth Head SAC and Baldoyle Bay SPA, given that Howth Head SAC QIs are elevated above the coastal waters, therefore is no hydrological connection; while the waters of the Baldoyle Bay SPA are located beyond the reasonable surface water impact pathway in terms of distance.

Given the proposed Scheme’s SuDS drainage design and existing drainage infrastructure at road-crossing, relevant operational emissions, i.e., surface water run-off penetrating into the groundwater, will be retained and treated in close proximity to the source, likely significant effects via the groundwater-to-surface water pathway are not predicted during the Operational Phase of the proposed Scheme for all Natura 2000 sites (North Dublin Bay SAC, North Bull Island SPA, Howth Head SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC, Baldoyle Bay SPA and North-west Irish Sea SPA).

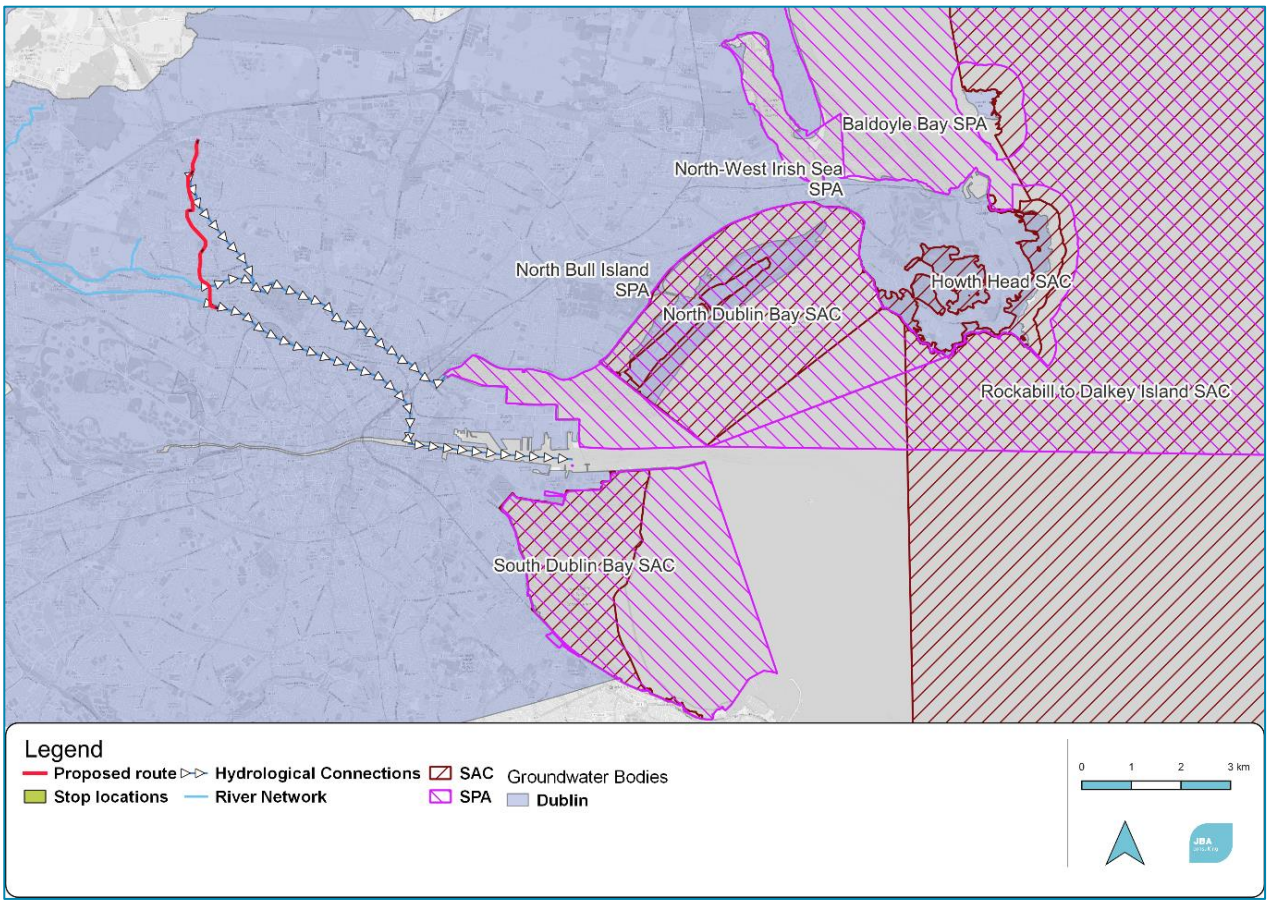


Figure 6-2: Proposed Scheme location and Natura 2000 sites, with groundwater bodies and hydrological connectivity (OSM, 2024)

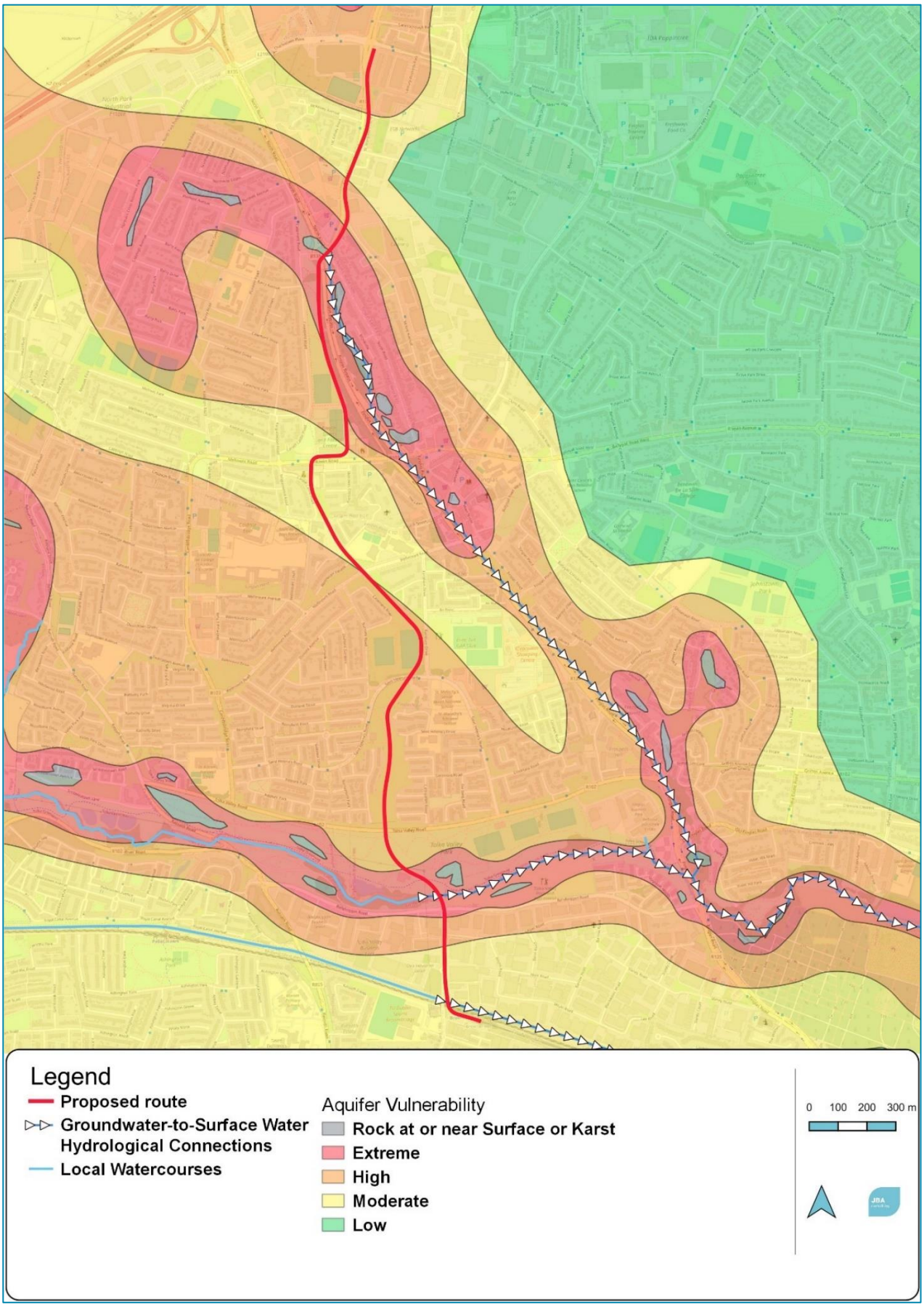


Figure 6-3: Aquifer vulnerability of the site (OSM, 2024)

6.2.4 Land Impact Pathways

The loss or degradation of ex-situ supporting habitats outside the identified Natura 2000 sites via direct land-based impacts (e.g., physical habitat disturbance and/or loss) during Construction and Operational Phases of the proposed Scheme may result in likely significant effects on a number of the SCI wintering birds that frequent green areas within and adjacent to the proposed Scheme. Bird species such as Light-bellied Brent Goose, Black-headed Gull, Herring Gull, Common Gull, Lesser Black-backed Gull and Curlew associated with North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and North-west Irish Sea SPA. However, there will be no temporary or permanent reduction supporting ex-situ habitats for any of these Natura 2000 sites, as the proposed Scheme's physical footprint (and its temporary compounds) will not be located in key SCI species foraging areas.

The Construction and Operations Phases associated with the proposed Scheme will not physically disturb, degrade or remove the QI / SCI habitats within the Natura 2000 sites of North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC; Howth Head SAC; South Dublin Bay and River Tolka Estuary SPA; Rockall to Dalkey Island SAC; Baldoyle Bay SPA; and North-west Irish Sea SPA due to the distance from the proposed Scheme to these Natura 2000 sites within the ZoI.

Therefore, during the Construction and Operational Phases of the proposed Scheme, likely significant effects are not predicted via the land impact pathway for North Dublin Bay SAC, North Bull Island SPA, Howth Head SAC, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC, Baldoyle Bay SPA and North-west Irish Sea SPA.

6.2.5 Air Impact Pathways

The disturbance or environmental degradation of supporting habitats outside the identified Natura 2000 sites via air pollution impacts could have potential significant effects on a number of the QIs / SCIs associated with North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA and North-west Irish Sea SPA.

6.2.5.1 Visual and Audible Disturbance (SCI Faunal Species)

Given the regular presence of flocks of local SCI bird species (Light-bellied Brent Goose, Black-headed Gull, Herring Gull, Common Gull, Lesser Black-backed Gull and Curlew), as well as non-SCI Annex II bird species (Lapwing and Barnacle Goose), within the proposed Scheme's 400m disturbance buffer (Cutts et al, 2013) (see Figure 6-5) during the 2021-2022, 2022-2023 and 2023-2024 winter periods, significant likely effects are predicted for these protected species during the proposed Scheme's Construction Phase as a result of the visual and audible disturbance from construction activities and machinery. Therefore, in the absence of mitigation during the Construction Phases of the proposed Scheme, likely impacts via the air (disturbance) impact pathway are predicted to have a likely significant effect on the SCI bird species of North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA Natura 2000 sites.

The SCI bird species of Baldoyle Bay SPA are not predicted to be disturbed visually or audibly by the Construction and Operation Phases of the proposed Scheme, given the data displayed in Figure 6-4 overleaf, highlights that the Light-bellied Brent Goose population of Baldoyle Bay SPA does not utilise inland areas within several kilometres of the proposed Scheme. These inland flight patterns / land utilisation will be similar for other SCI birds species within Baldoyle Bay SPA, given that the energy costs to reach the lands within adjacent to the proposed Scheme would be substantial. Therefore, likely significant effects are not predicted via the disturbance impact pathway for Baldoyle Bay SPA, and its SCI bird species.

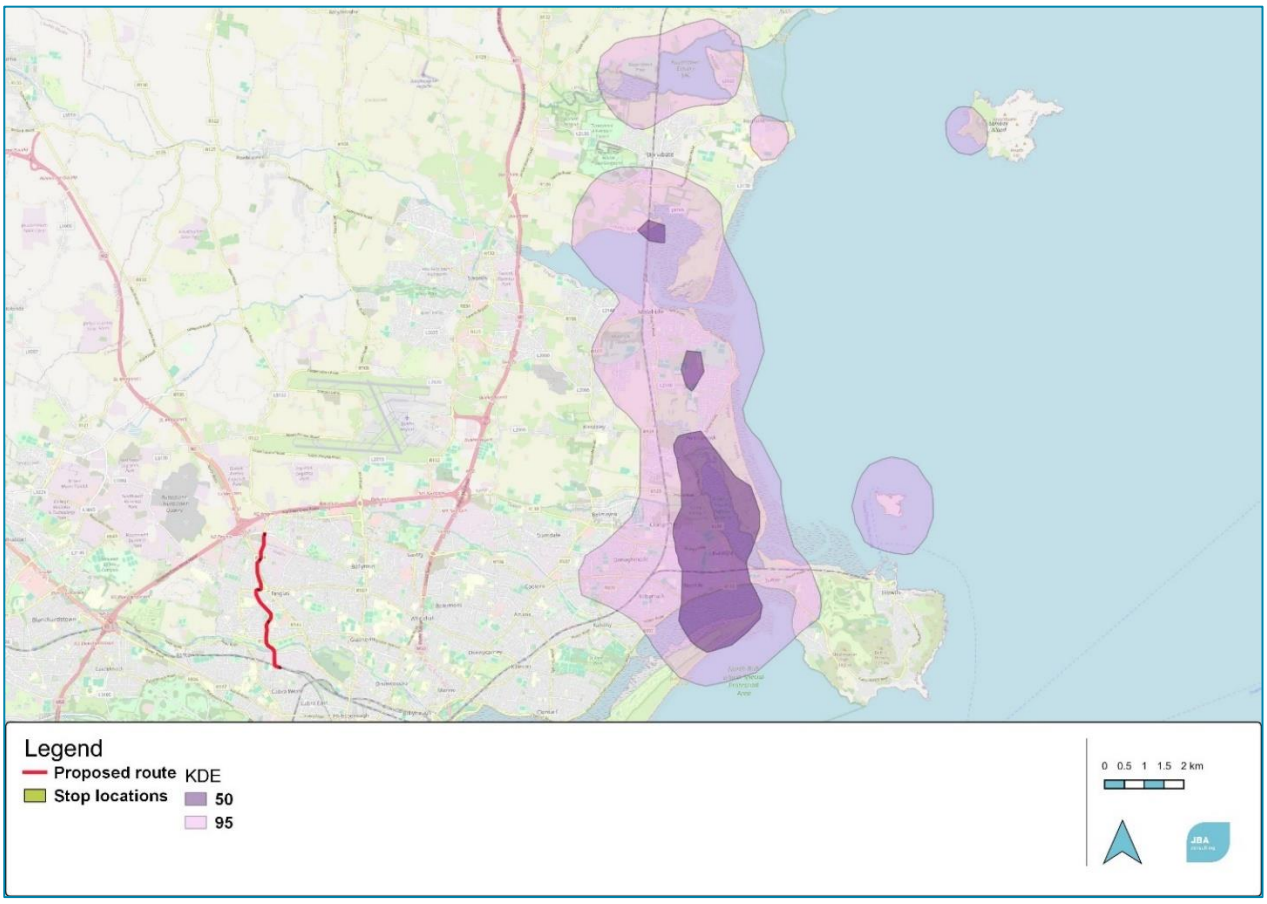


Figure 6-4: Kernel density estimates (KDE) for home range of Baldoyle Bay's Light-bellied Brent Goose population. Larger transparent layer is the 95% KDE and smaller, darker layer represents 50% KDE (roosting area) of brent geese (abstracted from Tess Handby PhD - University of Exeter, 2021) (OSM, 2024)

As the proposed Scheme's active light railway line is located within or immediately adjacent to existing roadways (Farnham area) and vehicular access routes (Tolka Valley Park), increases to operational disturbance from the light-rail activity will be negligible, given that the SCI bird species, which periodically utilise these areas are already habituated to a regularised baseline noise levels of 54dB, which is supported by the observations made throughout the wintering bird surveys (64 hours total). The north St Helena's and Farnham area will see an increase in cumulative noise levels to 60dB as a result of the operational rail noise and existing urban noise levels (EIAR – Volume 3 – Chapter 15 - Noise: ID Receptors R042 and R044 at St Helena's Childcare Centre). This 60dB level is within the low-level behavioural response category (Cutts et al, 2013) given that the SCI bird species recorded over the course of the surveys were most commonly recorded over 100m away from the St Helena's Childcare Centre. This low-level behavioural response refers to occasional vigilance behaviour, which will lessen as the SCI bird species become habituated to this new low-level disturbance element, as birds often habituate to regular noise levels between 55-72dB in urban environments (Cutts et al, 2013).

Therefore, in the absence of mitigation, likely significant effects are not predicted during the Operational Phase of the proposed Scheme, given the low-disturbance characteristics of the proposed Scheme within the sensitive SCI bird species areas, i.e., Tolka Valley Park and the greater Farnham area.

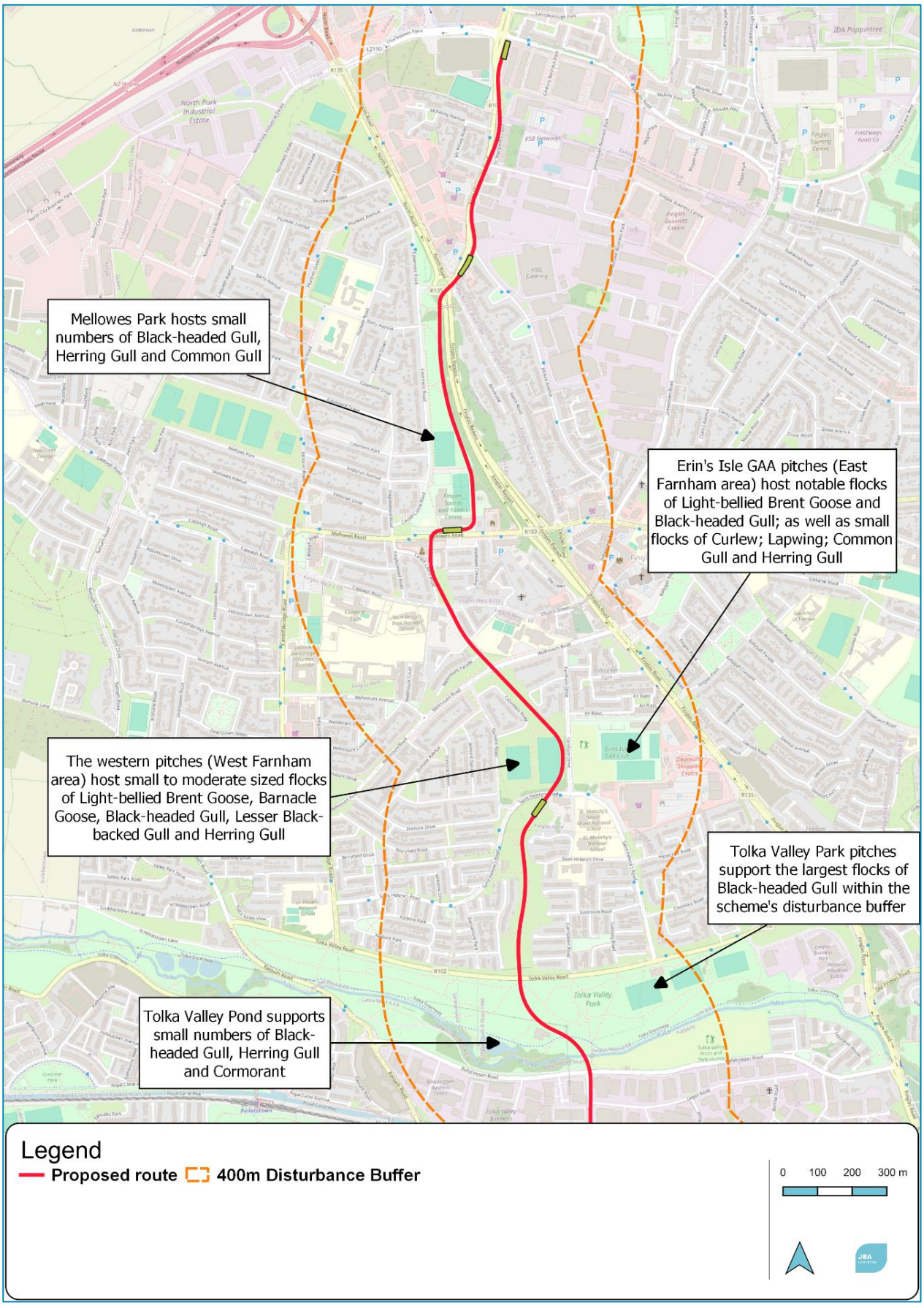


Figure 6-5: The proposed Scheme's boundary and its corresponding disturbance buffer (OSM, 2024)

6.2.5.2 Air Pollution (Emissions and Dust)

The ZoI for the air quality impact assessment will include all sensitive ecological receptors within a distance of 250m of the proposed Scheme during the Construction Phase, and 200m during the Operational Phase.

Air (Chemical emissions)

Vehicle emissions can potentially impact the QIs / SCIs of the Natura 2000 sites within the ZoI. There will be a moderate increase in local traffic attending the site of the proposed Scheme during construction, resulting in an increase in local NOx emissions, however, vehicular emissions are not predicted to result in likely significantly effects for the Natura 2000 sites (i.e., North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA; Howth Head SAC; Baldoyle Bay SPA and North-west Irish Sea SPA) due to the distance between proposed Scheme and Natura 2000 sites during sites Construction and Operational Phases. Furthermore, these increase emissions are not predicted to result in likely significant effects for the SCI bird species which utilise the green areas within this 250m buffer, given that these birds are only seasonal visitors to these areas. Moreover, the diurnal movement patterns of these bird species means that even when seasonally present, they only spend 2-3 hours at a time on average, with a maximum of 7 hours (as observed), within this 250m buffer.

Therefore, potential likely significant effects from vehicular emissions via the air pathway are not predicted during the Construction and Operational Phases for the Natura 2000 sites (i.e., North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA; Howth Head SAC; Baldoyle Bay SPA and North-west Irish Sea SPA) and their respective QIs and SCIs.

Air and air-to-surface water (Dust Settlement - Habitat Degradation)

Dust particles can be classified into those that are easily deposited and those that remain suspended in the air for extended periods. This division is useful as deposited dust is usually the coarse fraction of particulates that causes dust annoyance, whereas suspended particulate matter is implicated more in exposure impacts. Airborne particles have a broad range of diameters, from nanoparticles and ultrafine particles (diameters less than 0.1 microns (µm) to the very large particles with diameters up towards 100µm. There is no clear dividing line between the sizes of suspended particulates and deposited particulates, although particles with diameters >50µm tend to be deposited quickly and particles of diameter <10µm (PM10) have an extremely low deposition rate in comparison. Therefore, the size of suspended and deposited dust particles affects their distribution and as such requires different approaches to sampling these fractions. PM10 is the fraction of airborne (suspended) particulates which contains particles of diameter less than 10µm. PM2.5 is the fraction of airborne (suspended) particulates which contains particles of diameter less than 2.5µm.

PM10 is most commonly associated with road dust and construction activities. Wear and tear of brakes and tyres on vehicles and crushing activities at construction sites can all contribute to a rise in PM10. Larger particles (100µm diameter) are likely to settle within 5-10m of their source under a typical mean wind speed of 4-5 metres per second (m/s), and particles between 30-100 µm diameter are likely to settle within 100m of the source. Smaller particles, particularly those <10 µm in diameter, i.e., PM10, have a greater potential to have their settling rate impeded by atmospheric turbulence and to be transported further from their source. Dust emissions are exacerbated by dry weather and high wind speeds. The impact of dust, therefore, also depends on the wind direction and the relative location of the dust source and receptor. The prevailing wind in the proposed Scheme's locality is south-westerly, based on statistical measurements recorded between 2000-2024 at Dublin Airport (Windfinder.com, 2024).

Of particular concern is cement-based dust, given its alkalinity and capacity to contain heavy metals, such as chromium, nickel, cobalt, lead and mercury (Jóźwiak & Jóźwiak, 2009), which can have notable negative impacts on sediments, flora, fauna and water quality where introduced (Shah et al., 2020). During construction cement-based has to potential to settled in the foraging grounds (supporting ex-situ habitats) of the SCI / Annex bird species, leading to the degradation of the flora and fauna consumed by these protected species when they are periodically present. Furthermore, cement-based dust has the potential to settle within the local watercourses within the ZoI, transporting these contaminants downstream to the North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA; and North-west Irish Sea SPA.

Therefore, in the absence of mitigation, likely significant effects from cement-based dust via the air and air-to-surface water pathways are predicted during the Construction Phase of the proposed Scheme for North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC and South Dublin Bay and River Tolka Estuary SPA and their respective QIs / SCIs. No likely significant effects from cement-based dust via the air and air-to-surface water pathways are predicted during the Construction Phase of the proposed Scheme for Baldoyle Bay SPA, Howth Head SAC, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA.

Given the operational nature of the proposed Scheme, likely significant effects via the air and air-to-surface water pathways are not predicted during the Operational Phase.

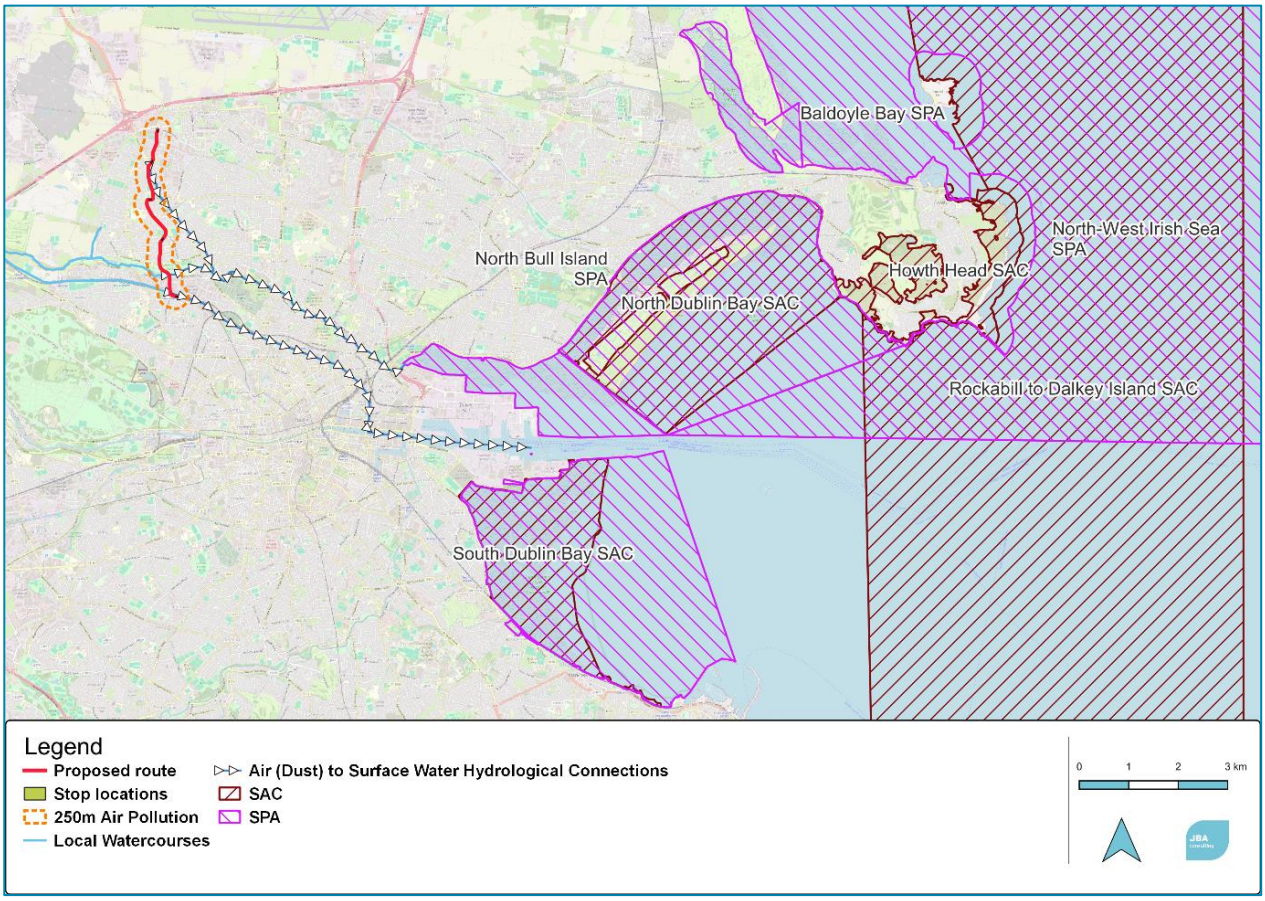


Figure 6-6: Proposed Scheme location and air pollution buffer, including air-to-surface water pathways with Natura 2000 sites (OSM, 2024)

6.2.6 Summary

Due to the location of the proposed Scheme; the supporting ex-situ habitat it contains (green areas within and adjacent to the Scheme) for SCI bird species; and existing pathways between the proposed Scheme and the Natura 2000 sites (North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC, and North-west Irish Sea SPA), the proposed Scheme is predicted to have likely significant effects via surface water, groundwater-to-surface water; air (visual and audible disturbance) pathways, air (dust settlement) and air-to-surface water (dust settlement) pathways to North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA and North-west Irish Sea SPA, and their respective QIs / SCIs.

No likely significant effects are predicted for Howth Head SAC or Baldoyle Bay SPA via surface water, groundwater-to-surface water; air (visual and audible disturbance) pathways, air (dust settlement) and air-to-surface water (dust settlement), given their respective locations (lack of impact pathways with the proposed Scheme); and in the case of Baldoyle Bay SPA, the associated SCI bird species do not frequent ex-situ supporting habitats within the ZoI of the proposed Scheme.

6.2.7 In-Combination Effects

In the absence of mitigation, the proposed Scheme is predicted to potentially have a likely significant effect on QIs / SCIs of the North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA Natura 2000 sites; and based on the screening statements of the plans and planning applications in Section 5. Other Relevant Plans and Projects, there is potential for other plans or projects to act in-combination with the proposed Scheme to result in likely significant effects on these Natura 2000 sites.

This assessment was reach through the examination of all overlapping ZoIs for the plans and projects (pending and approved) listed in section 5.3, with a particular focus on cumulative hubs, with the Broombridge / Royal Canal cumulative hub proving the most notable.

The proposed Phase 4B of the Royal Canal Greenway is located within disturbance zones of known Light-bellied Brent Goose foraging areas (Glasnevin, Cabra East and Ashtown amenity grassland areas). The proposed Scheme's Ecological Impact Assessment does not mitigate for the potential disturbance to Light-bellied Brent Goose foraging activities within the locality of the works. Therefore, this proposed Scheme does have the capacity to generate a cumulative disturbance impact on the Light-bellied Brent Goose southern sub-population of North Bull Island SPA. Additionally, the pending Ballyboggan LAP has a ZoI which will overlap with all of the proposed Scheme's ZoI buffers. If the construction of the Broombridge, Ballyboggan and Tolka Valley Park sections of the proposed Scheme overlap with any of developmental elements of the Ballyboggan LAP, there will be the potential for cumulative or in-combination impacts.

6.2.8 Description of likely direct, indirect or secondary impacts of the proposed Scheme (either alone or in combination with other plans or projects) on the Natura 2000 sites within the ZoI

Table 6-1: Description of likely direct, indirect or secondary impacts of Luas Finglas on the Natura 2000 sites within the ZoI

Proposed Scheme Elements	Comment
Size and scale	The proposed route is 3.9km in length and will extend the Luas Green Line northwards from its current Terminus at Broombridge to a new proposed Terminus at Charlestown, including 4 new stops and a stabling area. It is largely an at-grade scheme, primarily located within the administrative area of Dublin City Council, with the exception of the proposed Charlestown Terminus, which is in the administrative area of Fingal County Council.
Land-take	There will be no direct land take from any of Natura 2000 sites.
Distance from Natura 2000 site or key features of the site	Natura 2000 sites within the ZoI of the proposed Scheme: North Dublin Bay SAC = 7.8km / 9.0km (hydrological) South Dublin Bay SAC = 7.0km / 12.4km (hydrological) Howth Head SAC = 13.3km Rockabill to Dalkey Island SAC = 13.8km / 15.2km (hydrological) South Dublin Bay and River Tolka Estuary SPA = 4.8km / 5.7km (hydrological) North Bull Island SPA = 7.8km / 9.0km (hydrological) North-west Irish Sea SPA = 10.2km / 11.2km (hydrological)
Resource requirements (water abstraction etc.)	There will be no surface water nor groundwater abstraction on-site during Operations.
Emissions (disposal to land, water or air)	Construction Phase: **Water** The proposed Scheme will use existing surface water drainage infrastructure within the urbanised environment wherever possible. However, within the green amenity / parkland

Proposed Scheme Elements	Comment
	areas the surface water run-off has the potential to enter the local watercourses, e.g., the River Tolka, where potential contaminants and sediment-loading may degrade the quality of the water, which will ultimately flow into the South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA. Additionally, the local groundwater-to-surface water system will also have the potential to introduce deleterious substances into the local watercourses given the presence of the historic landfill site within the Tolka Valley Park. **Air (Visual)** Likely significant effects are predicted for protected SCI bird species during the proposed Scheme's Construction Phase as a result of the visual disturbance from construction activities, whilst attempting to forage within supporting ex-situ habitats located within and adjacent to the proposed Scheme. The Operations of the proposed Scheme, i.e., the operation of LRV along their route, have been deemed negligible, while the increased visual disturbance from increased pedestrian foot-traffic along the new pedestrian routes within the Farnham area have the potential to slightly increase the vigilance behaviour in SCI birds, limiting their foraging times. **Air (Audible)** Likely significant effects are predicted for protected SCI bird species during the proposed Scheme's Construction Phase as a result of the audible disturbance from construction activities, whilst attempting to forage within supporting ex-situ habitats located within and adjacent to the proposed Scheme. Operational impacts from the proposed Scheme (LRV-noise) have been assessed as negligible. **Air (Chemical Emissions)** There will be a moderate increase in local traffic attending the site of the proposed Scheme during construction, resulting in an increase in local NOx emissions, however, vehicular emissions are not predicted to significantly impact the any of Natura 2000 sites within the ZoI due to the distance between proposed Scheme and Natura 2000 sites during sites Construction and Operational Phases. Furthermore, these increase emissions are not predicted result in likely significant effects for the SCI bird species which utilise the green areas within this 250m buffer, given that these birds are only seasonal visitors to these areas. Moreover, the diurnal movement patterns of these bird species means that even when seasonally present, they only spend several hours per day on average within this 250m buffer. **Air (Dust)** During construction cement-based pollutants have the potential to settle in the foraging grounds (supporting ex-situ habitats) of the SCI bird species, leading to the degradation of the flora and fauna consumed by these protected species. Furthermore, cement-based pollutants have the potential to settle within the local watercourses within the ZoI, transporting these contaminants downstream to the South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA. Therefore, there is the potential for likely significant effects on the above Natura 2000 sites via air (dust) pathway. Operation Phase: **Water** During Operation, the proposed Operations (and associated emissions such as surface water run-off) of the Scheme are not predicted to result in likely significant to any of the Natura 2000 sites within the ZoI (i.e., South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA), due to the distance between the Scheme and Natura 2000 sites; the SuDS design ensuring that contaminated water does not flow off the site and downstream into the above Natura 2000 sites. **Air (Visual and Audible)** There will be a minute increase in visual and audible disturbance to SCI bird species which frequent the West Farnham area in the winter months, as a result of the increased

Proposed Scheme Elements	Comment
	pedestrian infrastructure and associated users in lands adjacent to their foraging grounds (playing pitches). The East Farnham SCI bird foraging area, i.e., Erin's Isle GAA, will not be affected by this impact given the existing wall screening the pitches from road and pathway. Therefore, there is potential for likely significant effects for SCI birds foraging in West Farnham during the Operational Phase of the proposed Scheme.
Excavation requirements	Area 30 generally follows the existing site area, however there is a localised depression of up to 2m located towards the rear (northern end) of the former industrial building (now demolished) to be filled and levelled. The fill material will be sourced from the valley areas of the site in Area 32. Local roads will be used to transfer this material. In Area 31, the elevations follow the proposed structure levels and the existing Broombridge Road tie-in levels. Further north, within Tolka Valley Park, the proposed alignment navigates between two of the mounded landforms associated with the historic landfills once operated within the park with cut and fill operations required. The two plateaus situated either side are approximately 4-5m above the proposed alignment. Unsuitable materials will be disposed directly to a suitably licenced landfill. In Areas 32 the track alignment closely follows the existing ground levels with maximum cut and fill ranges up to 1m. The earthworks activities to comprise excavation of a box section for the track form and reinstatement with aggregate materials. In Area 33 the track alignment closely follows the existing ground levels with maximum cut and fill ranges up to 1m. The earthworks activities to comprise excavation of a box section for the track form and reinstatement with aggregate materials.
Transportation requirements	Temporary Impacts: Levels of traffic to the site during the Construction Phase will increase traffic to the area but will be temporary in nature. All access to the site will be on pre-existing roads and transportation requirements will not negatively impact the Natura 2000 sites identified within the ZoI (South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA). Therefore, likely significant effects are not predicted as a result of the Construction Phase associated traffic. Permanent Impacts: Given the scale, nature and location of the proposed Scheme, transportation requirements will not result in likely significant effects for the Natura 2000 sites identified within the ZoI.
Duration of Construction, Operation, decommissioning etc.	The construction duration of the proposed Scheme is predicted to be 4.5 years. Operation of the proposed Scheme is permanent.
Other	None.

6.2.9 Description of likely changes to the Natura 2000 sites

Table 6-2: Description of likely changes to the Natura 2000 sites

Potential Impact	Comments
Reduction of habitat area	There will be no temporary or permanent reduction in habitat area (including supporting ex-situ habitats) for any of the Natura 2000 sites, as the proposed Scheme 's physical footprint (and its temporary compounds) will not be located in key QI / SCI species foraging / roosting areas.
Disturbance to key species	Temporary Impacts: The construction works will temporarily result in an increase to visual and audible disturbance for SCI bird species utilising supporting ex-situ foraging grounds within the proposed Scheme's disturbance buffer, with likely significant effect predicted for SCI birds associated with the North Bull Island

Potential Impact	Comments
	SPA, South Dublin and River Tolka Estuary SPA and North-west Irish Sea SPA Natura 2000 sites. Permanent Impacts: Disturbance to key QI / SCI species is not predicted during operation of the proposed Scheme, as the SCI bird species of North Bull Island SPA, South Dublin and River Tolka Estuary SPA and North-west Irish Sea SPA are habituated to minor traffic disturbance within the proposed Scheme's boundaries.
Habitat or species fragmentation	There will be no temporary or permanent habitat or species fragmentation within any Natura 2000 sites.
Reduction in species density	There will be no temporary or permanent reduction in species density within any Natura 2000 sites, or any QIs / SCIs of these sites
Changes in key indicators of conservation value (water quality etc.)	There is the potential for temporary changes in key indicators of conservation value, specifically surface water quality, which have the potential to result in likely significant effects for South Dublin Bay and Tolka Estuary SPA; North Dublin Bay SAC; North Bull Island SPA; South Dublin Bay SAC; Rockabill to Dalkey Island SAC; and North-West Irish Sea SPA.
Climate change	The proposed Scheme is part of the development of the public transport system in Dublin and will provide a positive contribution to climate change

6.2.10 Description of likely impacts on the Natura 2000 sites as a whole

Table 6-3: Description of likely impacts on the Natura 2000 sites as a whole

Potential Impact	Comments
Interference with the key relationships that define the structure of the site	Interference with the key relationships that define the structure of the sites are not predicted.
Interference with key relationships that define the function of the site	Interference with key relationships that define the function of the sites are not predicted.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Potential Impact	Comments
Loss (Estimated percentage of lost area of habitat)	No Natura 2000 sites will experience a direct loss in habitat area; therefore, no likely significant effects will be generated as a result of habitat loss.
Fragmentation	Fragmentation of habitat and/or species of the Natura 2000 sites is not predicted as the proposed Scheme poses no restrictions to habitats or species of the Natura 2000 sites, including ex-situ SCI wintering bird species; therefore, no likely significant effects are predicted in relation to fragmentation.
Disruption & disturbance	Significant disruption and/ or disturbance is predicted for SCI bird species in supporting ex-situ foraging habitats, resulting in likely significant effects.
Change to key elements of the site (e.g., water quality)	Potential temporary changes to key elements, specifically surface water quality is predicted, resulting in likely significant effects for the North Dublin Bay SAC, North Bull Island SPA, South Dublin Bay SAC, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-west Irish Sea SPA Natura 2000 sites.

6.2.11 Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is unknown

Following the screening assessment, and based upon best scientific judgement, it is concluded that in the absence of mitigation, likely significant effects are expected from the proposed Scheme on the following Natura 2000 sites either alone or in combination with any other plans or projects:

- North Dublin Bay SAC [000206];
- South Dublin Bay SAC [000210];
- Rockabill to Dalkey Island SAC [003000];
- South Dublin Bay and River Tolka Estuary SPA [004024];
- North Bull Island SPA [004006]; and
- North-West Irish Sea SPA [004236].

Following the screening assessment, and based upon best scientific judgement, it is concluded that, in the absence of mitigation, likely significant effects are not expected from the proposed Scheme on the following Natura 2000 sites either alone or in combination with any other plans or projects.

- Howth Head SAC [000202]; and
- Baldoyle Bay SPA [004016].

6.3 Concluding Statement

In carrying out this AA Screening, mitigation measures have not been taken into account. Standard best practice construction measures which could have the effect of mitigating any effects on any European Sites have similarly not been taken into account.

On the basis of the screening exercise carried out above, it can be concluded that in the absence of mitigation, that there is possibility of likely significant effects on North Dublin Bay SAC, South Dublin SAC, North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-West Irish Sea SPA, and their respective QIs / SCIs, by the proposed Scheme during the Construction and Operational Phases of the proposed Scheme through the surface water, groundwater-to-surface water, air, and air-to-surface water pathways.

On the basis of objective information and in light of best scientific knowledge and applying the precautionary principle, it can be concluded that the proposed Scheme, either individually or in combination with other plans and projects, and in the absence of mitigation, is not likely to have a significant effect on Howth Head SAC and Baldoyle Bay SPA, in view of the sites conservation objectives, and that there is no reasonable scientific doubt in relation to this conclusion. As Howth Head SAC QIs are located above the coastal waters, there is no hydrological connection from the proposed Scheme to the SAC. The waters of the Baldoyle Bay SPA are located beyond the reasonable surface water impact pathway (distance) and as such, no likely significant effects are predicted. Furthermore, the SCI bird species of Baldoyle Bay SPA do not frequent lands within the disturbance buffer of the proposed Scheme and therefore, will not result in any likely significant effects for these SCI bird species.

Therefore, it is the professional opinion of the authors of this report that the application for approval for the proposed Scheme does require a Stage Two Appropriate Assessment in respect of North Dublin Bay SAC, South Dublin SAC, North Bull Island SPA and South Dublin Bay and River Tolka Estuary SPA, Rockabill to Dalkey Island SAC and North-West Irish Sea SPA, and, consequently, the preparation of a Natura Impact Statement.

SECTION 7: REFERENCES

Catchment Science & Management Unit, 2021. 3rd Cycle Draft Liffey and Dublin Bay Catchment Report (HA 09), available: https://catchments.ie/wp-content/files/catchmentassessments/09%20Liffey%20and%20Dublin%20Bay%20Catchment%20Summary%20WFD%20Cycle%203.pdf.

CIEEM, 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal, Second Ed. (Chartered Institute of Ecology and Environmental), (updated 2022.

Cutts, K. N., Hemingway, & J. Spencer, 2013. Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects, Version 3.2,. Copyright University of Hull

DEHLG, 2009 rev 2010. Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DEHLG, 2009).

Denyer, J., 2022. ROYAL CANAL AQUATIC PLANT SURVEY. Denyer Ecology.

DoHPLG, 2022. 'Draft River Basin Management Plan for Ireland 2022-2027', available: https://www.gov.ie/en/consultation/2bda0-public-consultation-on-the-draft-river-basin-management-plan-for-ireland-2022-2027/.

EC, 2022. Guidance document on assessment of plans and projects in relation to Natura 2000 sites - A summary (European Commission. Directorate General for Environment)

EC, 2021. Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC (European Commission 2018).

EC, 2018. Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission (European Commission, 2000).

EEA, 2020a. Natura 2000 - Standard Data Form: North Dublin Bay SAC IE0000206, available: https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0000206

EEA, 2020b. Natura 2000 - Standard Data Form: South Dublin Bay SAC IE0000210, available: https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0000210

EEA, 2020c. Natura 2000 - Standard Data Form: North Bull Island SPA IE0004006, available: https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0004006

EEA, 2020d. Natura 2000 - Standard Data Form: South Dublin Bay and River Tolka Estuary SPA IE0004024, available: https://natura2000.eea.europa.eu/Natura2000/SDF.aspx?site=IE0004024

EPA, 2024. EPA Maps [online], Next Generation EPA Maps, available: https://gis.epa.ie/EPAMaps/

EPA, 2021. 3rd Cycle Draft Liffey and Dublin Bay Catchment Report (HA 09), available https://catchments.ie/wp-content/files/catchmentassessments/09%20Liffey%20and%20Dublin%20Bay%20Catchment%20Summary%20WFD%20Cycle%203.pdf

Fossitt, J.A., 2000. A Guide to Habitats in Ireland, Heritage Council of Ireland series, Heritage Council/Chomhairle Oidhreachta: Kilkenny.

GSI, 2024. Geological Survey Ireland Spatial Resources [online], available: https://dcenr.maps.arcgis.com/apps/MapSeries/index.html?appid=a30af518e87a4c0ab2fbde2aaac3c228.

IAQM, 2024. Guidance on the Assessment of Dust from Demolition and Construction. Institute of Air Quality Management.

Irish Water, 2018. Greater Dublin Drainage Strategy: Overview & Future Strategic Needs Asset Planning. Irish Water.

Jóźwiak, M. & Jóźwiak, M., 2009. Influence of cement industry on accumulation of heavy metals in

bioindicators. Ecol chem Eng 16, 323–334.

NBDC, 2024. National Biodiversity Data Centre. Available online at: https://maps.biodiversityireland.ie

NRA, 2009. Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. National Roads Authority. Available at: https://www.tii.ie/technical-services/environment/planning/Ecological-Surveying-Techniques-for-Protected-Flora-and-Fauna-during-the-Planning-of-National-Road-Schemes.pdf

NPWS, 2023a. Site Synopsis. North-west Irish Sea SPA 004236. Available: SITE SYNOPSIS (npws.ie)

NPWS, 2023b. Conservation Objectives: North-west Irish Sea SPA 004236. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage. Available: CO004236.pdf (npws.ie)

NPWS, 2019a. The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

NPWS, 2019b. The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitats Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

NPWS, 2019c. The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.

NPWS, 2015a. Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS, 2015b. Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS, 2013a. Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS, 2013b. Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

OPR, 2021. 'OPR Practice Note PN01 - Appropriate Assessment Screening for Development Management'.

RBMP, (2018). River Basin Management Plan for Ireland 2018 -2021. Department of Housing, Planning and Local Government

Scott Cawley, 2022. Dublin City Development Plan 2022 - 2028 - Natura Impact Report Conclusion.

Shah, K., An, N., Ma, W. et al. Chronic cement dust load induce novel damages in foliage and buds of Malus domestica. Sci Rep 10, 12186 (2020). https://doi.org/10.1038/s41598-020-68902-6

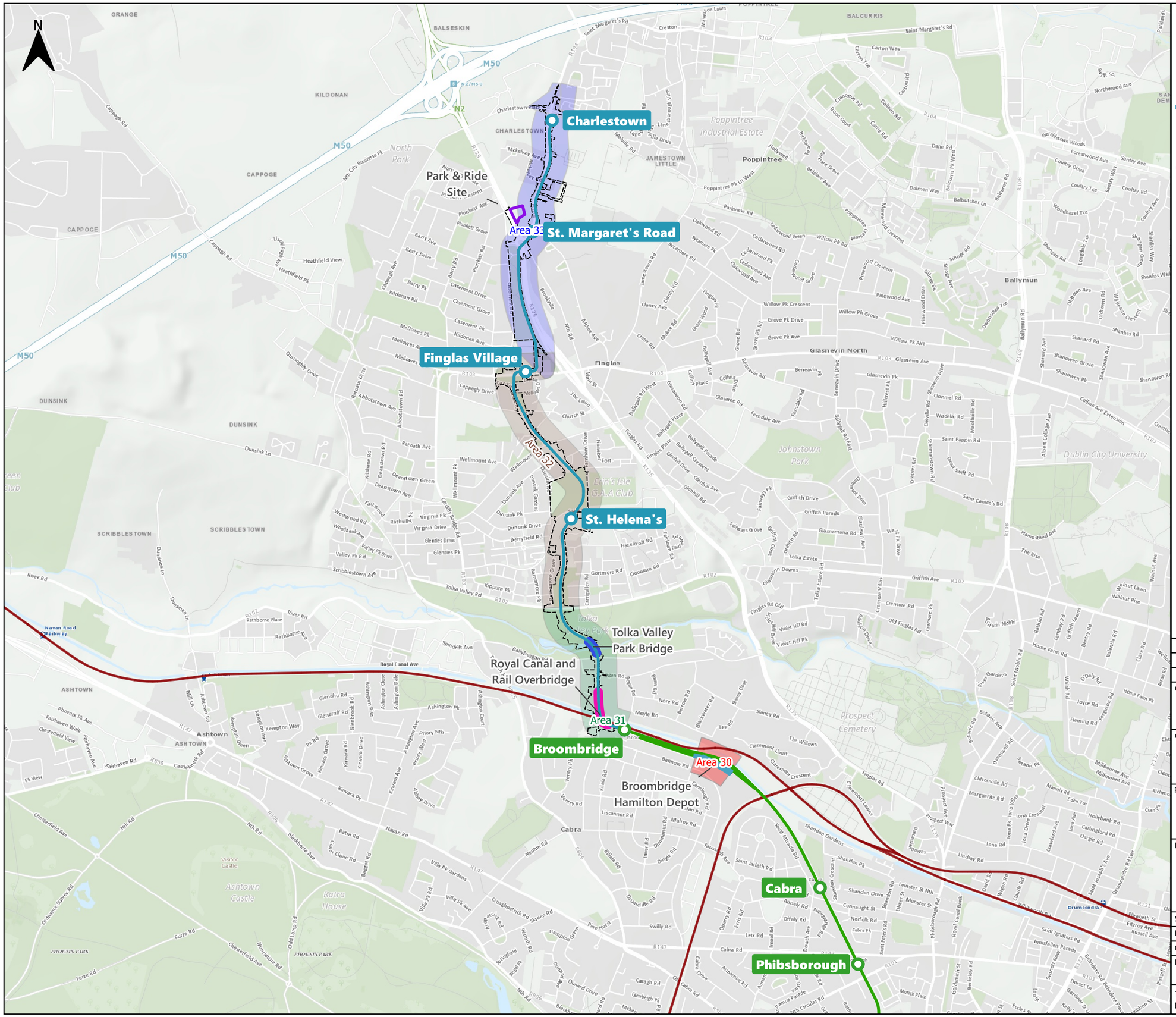
Smith, G.F., O'Donoghue, P., O'Hora, K., Delaney, E. (2011) 'Best practice guidance for habitat survey and mapping', The Heritage Council: Ireland.

Stace, C., 2019. The New Flora of the British Isles 4th Edition. C&M Floristics.

Triturus, 2024. Royal Canal (1st to 16th lock) macrophyte survey 2023. Triturus Environmental Ltd.

Windfinder.com, 2024. Windfinder.Com - Wind and Weather Statistic Dublin Airport [online], Windfinder.com, available: https://www.windfinder.com/windstatistics/casementaerodrome.

Appendix A: Site Layout Design



Legend

Luas Finglas

- Proposed Scheme Alignment
- Proposed New Luas Stops
- Broombridge Hamilton Depot (existing)
- Extent of Proposed Works Boundary
- Proposed Park & Ride Site

Alignment Areas

- Area 30
- Area 31
- Area 32
- Area 33

Proposed Bridges

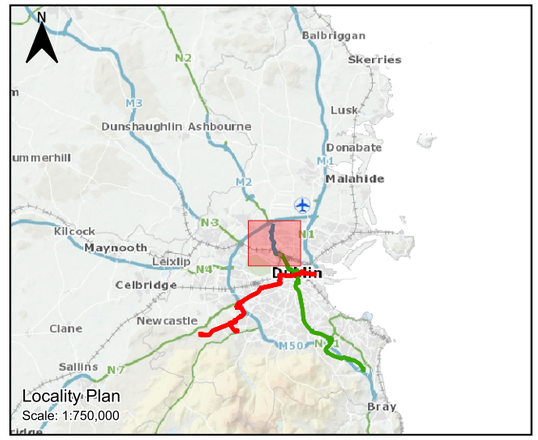
- Royal Canal and Rail Overbridge
- Tolka Valley Park Bridge

Existing Luas

- Red Line
- Green Line
- Existing Luas Stops

Existing Rail Network

- Irish Rail



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P02	08/008/24	S3 - Review & Comment	SM	AC	AC	ED
P01	21/03/24	S3 - Review & Comment	MC	MC	AC	ED

Consultant: BARRY TRANSPORTATION, egis

Client: TII Bonneagar Iompair Éireann Transport Infrastructure Ireland; NTA Údarás Náisiúnta Iompair National Transport Authority

Project: LUAS FINGLAS

Drawing Title: Map Figure 1-1. Map of Luas Finglas Sheet 1 of 1

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Client Project No.	LDD101
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Appendix B: Habitat Maps

Broombridge

Green Line

Legend

Luas Finglas

- Proposed Scheme Alignment
- Proposed New Luas Stops
- Extent of Proposed Works Boundary

Existing Luas

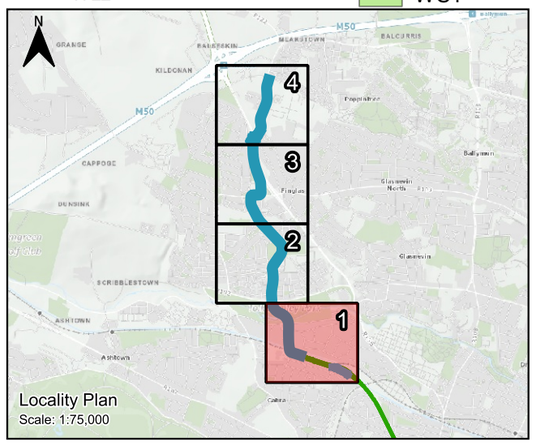
- Green Line
- Existing Luas Stops

Linear Habitat

- BL1
- FS1
- FW2
- FW3
- GS2
- WL1
- WL2

Area Habitat

- BL3
- FL8
- FS1
- FS2
- FW2
- FW3
- GA2
- GM1
- GS2
- GS2, WS1
- WD1
- WD5
- WN6
- WS1



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P01	08/07/24	S3 - Review & Comment	WM	PB	PB	BOC

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Client: TII Bonneagar Iompair Éireann Transport Infrastructure Ireland; NTA Údarás Náisiúnta Iompair National Transport Authority

Project: LUAS FINGLAS

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Map Figure 9-3. Habitat Maps
Sheet 1 of 4

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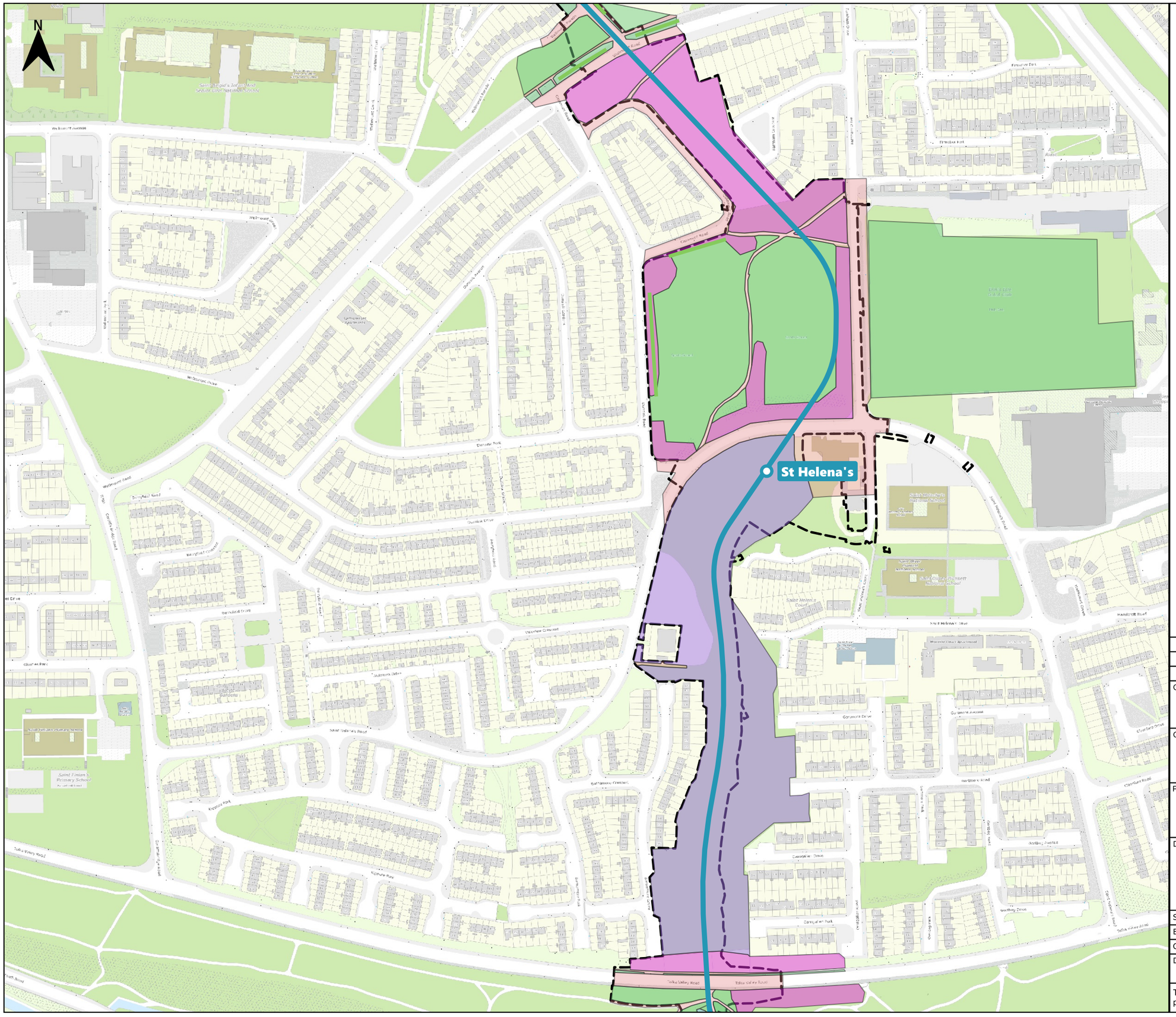


Legend

Luas Finglas

- Proposed Scheme Alignment
- Proposed New Luas Stops
- Extent of Proposed Works Boundary

Existing Luas

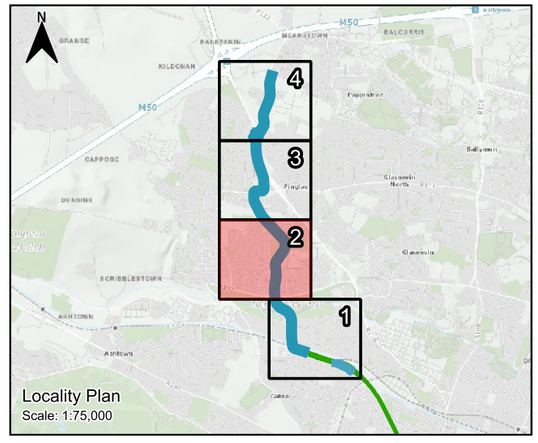
- Green Line
- Existing Luas Stops

Area Habitat

- BL3
- GA2
- GS1
- GS2
- WD5

Linear Habitat

- WL2



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Project: LUAS FINGLAS

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Map Figure 9-3. Habitat Maps
Sheet 2 of 4

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Finglas Village

Legend

Luas Finglas

- Proposed Scheme Alignment
- Proposed New Luas Stops
- Extent of Proposed Works Boundary

Existing Luas

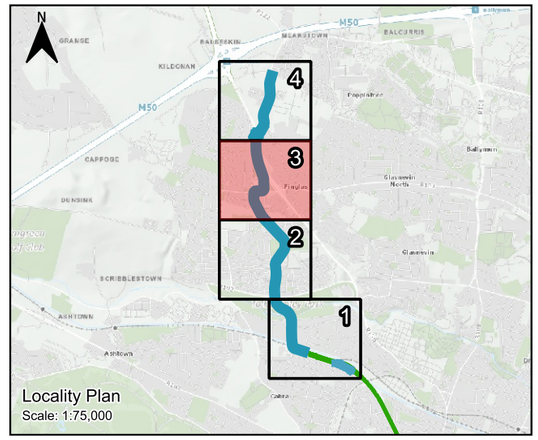
- Green Line
- Existing Luas Stops

Area Habitat

- BL3
- GA2
- WD2
- WD5

Linear Habitat

- WL1
- WL2



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Map Figure 9-3. Habitat Maps
Sheet 3 of 4

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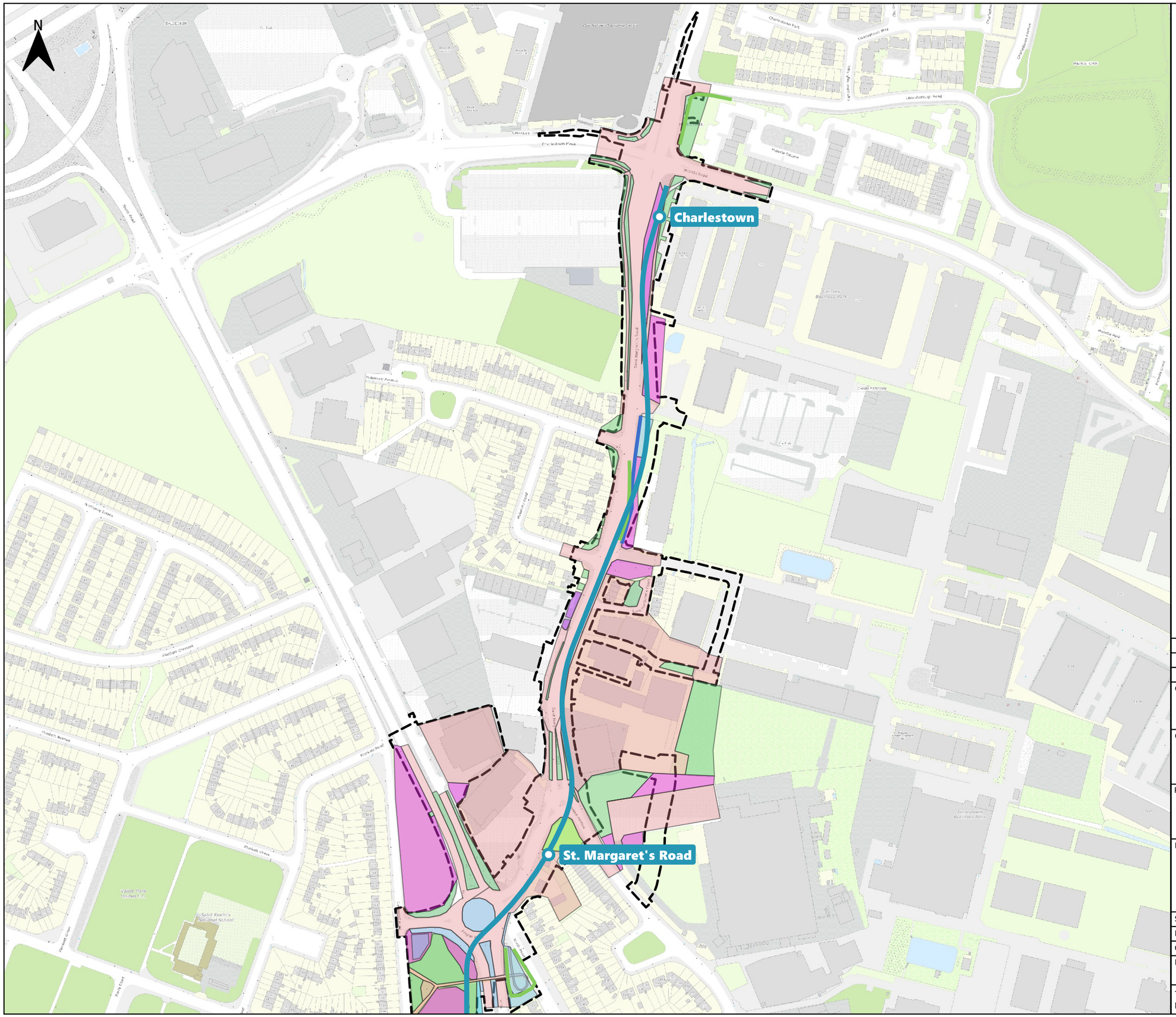


Legend

Luas Finglas

- Proposed Scheme Alignment
- Proposed New Luas Stops
- Extent of Proposed Works Boundary

Existing Luas

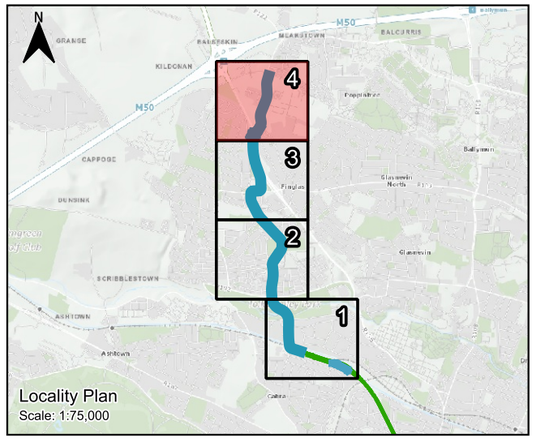
- Green Line
- Existing Luas Stops

Area Habitat

- BL3
- GA2
- GS2
- WD2
- WD5
- WS1
- WS3

Linear Habitat

- GA2
- GS2
- WL2



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Project: LUAS FINGLAS

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Map Figure 9-3. Habitat Maps
Sheet 4 of 4

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Appendix C: Wintering Bird Survey Data

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SECTION 1: WINTERING BIRD SURVEY DATA

The wintering bird survey data used to form the baseline for the EIAR was collected through on-site observations of wintering bird species of conservation concern by the Luas Ecology Team over the 2021 – 2022, 2022 - 2023 and 2023 - 2024 winter periods; the result of which are displayed below.

Table A9 4.1: Wintering Bird Field Survey Data (December 2021 – February 2022)

Date	Location	Species (Max. Number recorded)
01/12/2021	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (86)
01/12/2021	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (56)
01/12/2021	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (14)
01/12/2021	Western pitches / grassland (West Farnham area)	Black-headed Gull (11)
01/12/2021	Western Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (6)
01/12/2021	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (2)
01/12/2021	Western pitches / grassland (West Farnham area)	Herring Gull (4)
01/12/2021	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (6)
01/12/2021	Tolka Valley Park Pond	Mute Swan (2)
01/12/2021	Tolka Valley Park Pond	Mallard (16)
01/12/2021	Southern section of Mellowes Park	Herring Gull (3)
15/12/2021	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (86)
15/12/2021	Eastern pitches- Tolka Valley Park (within disturbance buffer)	Black-headed Gull (15)
15/12/2021	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (10)
15/12/2021	Western Tolka Valley Park grasslands (beyond disturbance buffer)	Herring Gull (2)
15/12/2021	Western Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (3)
15/12/2021	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (2)
15/12/2021	Casement Road	Herring Gull (3)
15/12/2021	Southern section of Mellowes Park	Herring Gull (2)
15/12/2021	Western pitches / grassland (West Farnham area)	Herring Gull (7)
15/12/2021	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (4)
15/12/2021	Tolka Valley Park Pond	Mute Swan (2)
15/12/2021	Tolka Valley Park Pond	Mallard (18)
05/01/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~1000)
05/01/2022	Tolka Valley Park eastern pitches	Black-headed Gull (20)

Date	Location	Species (Max. Number recorded)
05/01/2022	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (43)
05/01/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (10)
05/01/2022	Patrickswell Place / Wellmount Parade green area	Black-headed Gull (10)
05/01/2022	Northern section of Mellowes Park	Black-headed Gull (4)
05/01/2022	Tolka Valley Park Pond	Mute Swan (2)
05/01/2022	Tolka Valley Park Pond	Mallard (32)
18/01/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~300)
18/01/2022	Tolka Valley Park Pond	Black-headed Gull (29)
18/01/2022	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (2)
18/01/2022	Tolka Valley Park Pond	Mute Swan (2)
18/01/2022	Tolka Valley Park Pond	Mallard (27)
18/01/2022	Southern section of Mellowes Park	Herring Gull (4)
27/01/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~325)
27/01/2022	Eastern Tolka Valley Park grasslands (beyond disturbance buffer)	Black-headed Gull (9)
27/01/2022	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (41)
27/01/2022	Tolka Valley Park Pond	Black-headed Gull (24)
27/01/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (7)
27/01/2022	Casement Road	Black-headed Gull (4)
27/01/2022	Southern section of Mellowes Park	Black-headed Gull (6)
27/01/2022	Eastern pitches - Tolka Valley Park	Black-headed Gull (16)
27/01/2022	Tolka Valley Pitch and Putt	Black-headed Gull (11)
27/01/2022	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (4)
27/01/2022	Tolka Valley Park Pond	Mute Swan (2)
27/01/2022	Tolka Valley Park Pond	Mallard (18)
02/02/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~780)
02/02/2022	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (37)
02/02/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (11)
02/02/2022	Eastern pitches - Tolka Valley Park	Black-headed Gull (131)
02/02/2022	Western Tolka Valley Park grasslands (beyond disturbance buffer)	Black-headed Gull (32)
02/02/2022	Tolka Valley Park Pond	Black-headed Gull (31)
02/02/2022	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (4)
02/02/2022	Eastern pitch / grassland (West Farnham area)	Herring Gull (2)
02/02/2022	Casement Road	Herring Gull (3)

Date	Location	Species (Max. Number recorded)
02/02/2022	Southern section of Mellowes Park	Herring Gull (1)
02/02/2022	Tolka Valley Park Pond	Mute Swan (2)
02/02/2022	Tolka Valley Park Pond	Mallard (12)
10/02/2022	Western pitch / grassland (West Farnham area)	Light-bellied Brent Goose (41)
10/02/2022	Southern section of Mellowes Park	Black-headed Gull (7)
10/02/2022	Eastern pitches - Tolka Valley Park	Black-headed Gull (33)
10/02/2022	Tolka Valley Park Pond	Mute Swan (2)
10/02/2022	Tolka Valley Park Pond	Mallard (15)
25/02/2022	Western pitch / grassland (West Farnham area)	Light-bellied Brent Goose (171)
25/02/2022	Western pitch / grassland (West Farnham area)	Barnacle Goose (2)
25/02/2022	Eastern pitches - Tolka Valley Park	Black-headed Gull (14)
25/02/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (21)
25/02/2022	Northern section of Mellowes Park	Black-headed Gull (8)
25/02/2022	Tolka Valley Park Pond	Mute Swan (2)
25/02/2022	Tolka Valley Park Pond	Mallard (12)

Table A9 4.2: Wintering Bird Field Survey Data (December 2022 – February 2023)

Date	Location	Species (Max. Number recorded)
07/12/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (163)
07/12/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (9)
07/12/2022	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (32)
07/12/2022	Southern section of Mellowes Park	Black-headed Gull (7)
07/12/2022	Tolka Valley Park Pond	Black-headed Gull (13)
07/12/2022	Tolka Valley Park Pond	Mute Swan (2)
07/12/2022	Tolka Valley Park Pond	Mallard (14)
16/12/2022	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~340)
16/12/2022	Western pitch / grassland (West Farnham area)	Light-bellied Brent Goose (186)
16/12/2022	Erin Isle GAA Pitches (East Farnham area)	Curlew (3)
16/12/2022	Tolka Valley Park Pond	Black-headed Gull (18)
16/12/2022	Western pitches / grassland (West Farnham area)	Black-headed Gull (7)
16/12/2022	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (14)
16/12/2022	Southern section of Mellowes Park	Black-headed Gull (4)
16/12/2022	Tolka Valley Park Pond	Mute Swan (2)
16/12/2022	Tolka Valley Park Pond	Mallard (10)
05/01/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (118)
05/01/2023	Western pitch / grassland (West Farnham area)	Light-bellied Brent Goose (92)

Date	Location	Species (Max. Number recorded)
05/01/2023	Tolka Valley Park Pond	Black-headed Gull (5)
05/01/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (23)
05/01/2023	Casement Road	Black-headed Gull (5)
05/01/2023	Eastern Tolka Valley Park grasslands (beyond disturbance buffer)	Black-headed Gull (41)
05/01/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (8)
05/01/2023	Northern section of Mellowes Park	Herring Gull (2)
05/01/2023	Tolka Valley Park Pond	Mute Swan (2)
05/01/2023	Tolka Valley Park Pond	Mallard (13)
13/01/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (124)
13/01/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (64)
13/01/2023	Tolka Valley Park Pond	Black-headed Gull (5)
13/01/2023	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (26)
13/01/2023	Southern section of Mellowes Park	Black-headed Gull (12)
13/01/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (61)
13/01/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (32)
13/01/2023	Tolka Valley Park Pond	Mute Swan (2)
13/01/2023	Tolka Valley Park Pond	Mallard (19)
25/01/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (75)
25/01/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (49)
25/01/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (30)
25/01/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (91)
25/01/2023	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (7)
25/01/2023	Tolka Valley Park Pond	Black-headed Gull (25)
25/01/2023	Southern section of Mellowes Park	Black-headed Gull (5)
25/01/2023	Tolka Valley Park Pond	Mute Swan (2)
25/01/2023	Tolka Valley Park Pond	Mallard (18)
02/02/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (~355)
02/02/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (82)
02/02/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (43)
02/02/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (90)
02/02/2023	Tolka Valley Park Pond	Black-headed Gull (10)
02/02/2023	Southern section of Mellowes Park	Black-headed Gull (5)
02/02/2023	Tolka Valley Park Pond	Tufted Duck (2)

Date	Location	Species (Max. Number recorded)
02/02/2023	Tolka Valley Park Pond	Mute Swan (2)
02/02/2023	Tolka Valley Park Pond	Mallard (15)
17/02/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (155)
17/02/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (74)
17/02/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (35)
17/02/2023	Eastern Tolka Valley Park grasslands (beyond disturbance buffer)	Black-headed Gull (51)
17/02/2023	Southern section of Mellowes Park	Black-headed Gull (6)
17/02/2023	Tolka Valley Park Pond	Black-headed Gull (5)
17/02/2023	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (12)
17/02/2023	Tolka Valley Park Pond	Tufted Duck (2)
17/02/2023	Tolka Valley Park Pond	Mute Swan (2)
17/02/2023	Tolka Valley Park Pond	Mallard (11)
28/02/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Goose (86)
28/02/2023	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (62)
28/02/2023	Western pitches / grassland (West Farnham area)	Black-headed Gull (14)
28/02/2023	Western Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (17)
28/02/2023	Southern section of Mellowes Park	Black-headed Gull (4)
28/02/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (22)
28/02/2023	Tolka Valley Park Pond	Black-headed Gull (3)
28/02/2023	Tolka Valley Park Pond	Tufted Duck (2)
28/02/2023	Tolka Valley Park Pond	Mute Swan (2)
28/02/2023	Tolka Valley Park Pond	Mallard (14)

Table A9 4.3: Wintering Bird Field Survey Data (December 2023 – February 2024)

Date	Location	Species (Max. Number recorded)
15/12/2023	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (~345)
15/12/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (27)
15/12/2023	Tolka Valley Park Pond	Black-headed Gull (3)
15/12/2023	Southern section of Mellowes Park	Black-headed Gull (5)
15/12/2023	Western Tolka Valley Park grasslands (within disturbance buffer)	Lesser Black-backed Gull (2)
15/12/2023	Tolka Valley Park Pond	Mallard (13)
15/12/2023	River Tolka (upstream of bridge)	Cormorant (1)

Date	Location	Species (Max. Number recorded)
15/12/2023	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (2)
15/12/2023	Eastern pitch / grassland (West Farnham area)	Herring Gull (3)
15/12/2023	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (4)
15/12/2023	Erin Isle GAA Pitches (East Farnham area)	Lesser Black-backed Gull (7)
15/12/2023	Erin Isle GAA Pitches (East Farnham area)	Common Gull (3)
15/12/2023	Royal Canal (downstream of bridge)	Cormorant (1)
04/01/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (49)
04/01/2024	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (57)
04/01/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (15)
04/01/2024	Eastern pitch / grassland (West Farnham area)	Black-headed Gull (6)
04/01/2024	Tolka Valley Park Pond	Black-headed Gull (6)
04/01/2024	Southern section of Mellowes Park	Black-headed Gull (3)
04/01/2024	Tolka Valley Park Pond	Herring Gull (1)
04/01/2024	Tolka Valley Park Pond	Mallard (15)
04/01/2024	Tolka Valley Park Pond	Mute Swan (2)
04/01/2024	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Herring Gull (2)
04/01/2024	Eastern pitch / grassland (West Farnham area)	Herring Gull (7)
04/01/2024	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (7)
12/01/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (147)
12/01/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (12)
12/01/2024	Western pitches / grassland (West Farnham area)	Black-headed Gull (9)
12/01/2024	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (22)
12/01/2024	Eastern pitch / grassland (West Farnham area)	Herring Gull (3)
12/01/2024	Southern section of Mellowes Park	Lesser Black-backed Gull (3)
19/01/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (~255)
19/01/2024	Western pitch / grassland (West Farnham area) *[*Flock at Erin Isle GAA Pitches moved to this location after disturbance]*	Light-bellied Brent Geese (~255)
19/01/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (42)
19/01/2024	Western pitches / grassland (West Farnham area)	Black-headed Gull (3)
19/01/2024	Tolka Valley Park Pond	Black-headed Gull (10)
19/01/2024	Northern section of Mellowes Park	Black-headed Gull (7)
19/01/2024	Tolka Valley Park Pond	Herring Gull (1)
19/01/2024	Tolka Valley Park Pond	Mallard (15)
19/01/2024	Tolka Valley Park Pond	Mute Swan (2)
19/01/2024	Western pitches / grassland (West Farnham area)	Herring Gull (4)

Date	Location	Species (Max. Number recorded)
02/02/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (42)
02/02/2024	Western pitch / grassland (West Farnham area)	Light-bellied Brent Geese (48)
02/02/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (17)
02/02/2024	Eastern pitch / grassland (West Farnham area)	Black-headed Gull (22)
02/02/2024	Tolka Valley Park Pond	Black-headed Gull (6)
02/02/2024	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (17)
02/02/2024	Southern section of Mellowes Park	Black-headed Gull (9)
02/02/2024	Tolka Valley Park Pond	Mallard (12)
02/02/2024	Tolka Valley Park Pond	Mute Swan (2)
02/02/2024	Tolka Valley Park Pond	Tufted Duck (2)
02/02/2024	Tolka Valley Pitch & Putt	Herring Gull (6)
02/02/2024	Eastern pitch / grassland (West Farnham area)	Herring Gull (2)
02/02/2024	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (12)
09/02/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (107)
09/02/2024	Eastern pitch / grassland (West Farnham area)	Light-bellied Brent Geese (12)
09/02/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (29)
09/02/2024	Eastern pitch / grassland (West Farnham area)	Black-headed Gull (31)
09/02/2024	Western pitches / grassland (West Farnham area)	Black-headed Gull (23)
09/02/2024	Eastern pitch / grassland (West Farnham area)	Herring Gull (5)
09/02/2024	Eastern pitch / grassland (West Farnham area)	Common Gull (8)
09/02/2024	Erin Isle GAA Pitches (East Farnham area)	Herring Gull (7)
09/02/2024	Tolka Valley Park Pond	Mallard (12)
09/02/2024	Tolka Valley Park Pond	Mute Swan (2)
09/02/2024	Southern section of Mellowes Park	Herring Gull (4)
23/02/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (~392)
23/02/2024	Eastern pitch / grassland (West Farnham area)	Light-bellied Brent Geese (~446)
23/02/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (8)
23/02/2024	Tolka Valley Park Pond	Black-headed Gull (14)
23/02/2024	Western pitches / grassland (West Farnham area)	Black-headed Gull (33)
23/02/2024	Tolka Valley Park Pond	Mallard (15)
23/02/2024	Tolka Valley Park Pond	Mute Swan (2)
23/02/2024	Southern section of Mellowes Park	Herring Gull (2)
27/02/2024	Western pitches / grassland (West Farnham area)	Light-bellied Brent Geese (~238)
27/02/2024	Erin Isle GAA Pitches (East Farnham area)	Light-bellied Brent Geese (~275)
27/02/2024	Western pitches / grassland (West Farnham area)	Black-headed Gull (49)
27/02/2024	Erin Isle GAA Pitches (East Farnham area)	Black-headed Gull (4)
27/02/2024	Tolka Valley Park Pond	Black-headed Gull (4)

Date	Location	Species (Max. Number recorded)
27/02/2024	Eastern Tolka Valley Park grasslands (within disturbance buffer)	Black-headed Gull (15)
27/02/2024	Eastern pitch / grassland (West Farnham area)	Black-headed Gull (3)
27/02/2024	Tolka Valley Park Pond	Mallard (16)
27/02/2024	Tolka Valley Park Pond	Mute Swan (2)
27/02/2024	Southern section of Mellowes Park	Herring Gull (3)

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