



Ecological Impact Assessment

Steeven's Lane 110kV Substation

Steeven's Lane, Dublin 8

The Electricity Supply Board (ESB)

August 2026

Table of Content

1.	Introduction	2
1.1	Scope of Assessment	2
1.2	Statement of Competency	3
2.	Development Setting	3
2.1	Site Location and Context	3
2.1.1	Interaction with Diageo IEL Site Boundary	4
3.	Characteristics of Proposed Development	5
3.1	Proposed Substation Development	6
3.2	Proposed Connection to Electricity Grid	7
4.	Methodology	7
4.1	Legislation, Published Guidance and Relevant Literature	7
4.2	Zone of Influence (ZOI)	8
4.3	Study Area	8
4.4	Desktop Study	9
4.4.1	Database Searches and Data Requests	10
4.5	Field Surveys	10
4.5.1	Habitats and Flora	10
4.5.2	Non-native/Invasive Flora	10
4.5.3	Fauna	11
4.5.3.1	Non-volant Mammals	11
4.5.3.2	Bats	11
4.5.3.3	Birds	12
4.5.3.4	Amphibians and Reptiles	13
4.5.3.5	Other Fauna.....	13
4.6	Assessment Criteria	13
4.6.1	Evaluation	13
4.6.2	Important Ecological Features (IEFs).....	14
4.6.3	Impact Assessment	14
5.	Description of Existing Environment	16
5.1	General Site Description.....	16
5.2	Hydrology and Hydrogeology.....	16
6.	Identification of European Sites.....	18

6.1	Designated Sites.....	18
6.1.1	Sites of International Importance	18
6.1.2	Sites of National Importance	21
6.1.3	Additional Sites.....	22
6.1.4	Evaluation of Designated Sites as Ecological Receptors	23
6.2	Habitats and Flora.....	24
6.2.1	Habitats.....	24
6.2.2	Annex I Habitats	26
6.2.2.1	Desktop Study	26
6.2.2.2	Field Survey Results	26
6.2.3	Rare and Protected Flora	27
6.2.3.1	Desktop Study	27
6.2.3.2	Field Survey Results	27
6.2.4	Non-native/Invasive Flora.....	27
6.2.4.1	Desktop Study	27
6.2.4.2	Field Survey Results	27
6.2.5	Non-volant Mammals	28
6.2.5.1	Desktop Study	28
6.2.5.2	Field Survey Results	28
6.2.6	Bats	29
6.2.6.1	Desktop Study	29
6.2.7	Field Survey Results.....	30
6.2.7.1	Roost and Habitat Suitability Survey (Daytime)	30
6.2.8	Birds	32
6.2.8.1	Desktop Study	32
6.2.8.2	Field Survey Results	33
6.2.9	Amphibians, Reptiles and Invertebrates	34
6.2.9.1	Desktop Study	34
6.2.9.2	Field Survey Results	34
7.	Identification and Evaluation of Important Ecological Features	34
7.1	Habitats	34
7.2	Rare and Protected Flora	35
7.3	Fauna	35

8. Do Nothing Scenario	37
9. Potential Impacts of the Proposed Development	38
9.1 Construction Phase	38
9.2 Operational Phase	38
9.3 Decommissioning Phase	39
10. Assessment of Potentially Significant Effects	39
10.1 Construction Phase	39
10.1.1 Potential Habitat Loss, Alteration and Fragmentation Impacts	39
10.1.2 Potential Disturbance and Displacement of Fauna	39
10.1.3 Potential Species Mortality or Injury	40
10.1.4 Potential Surface Water Runoff and Pollution Risk	40
10.1.5 Potential Dust Effects	41
10.1.6 Potential Spread of Invasive Alien Plant Species	42
10.2 Operational Phase	43
10.2.1 Potential Habitat Loss, Alteration and Fragmentation Impacts	43
10.2.2 Potential Disturbance and Displacement of Fauna	43
10.2.3 Potential Species Mortality or Injury	43
10.2.4 Potential Surface Water Runoff and Pollution Risk	43
10.2.5 Potential Spread of Invasive Alien Plant Species	43
10.3 Decommissioning Phase	44
10.3.1 Potential Habitat Loss, Alteration and Fragmentation Impacts	44
10.3.2 Potential Disturbance and Displacement of Fauna	44
10.3.3 Potential Species Mortality or Injury	44
10.3.4 Potential Surface Water Runoff and Pollution Risk	44
10.3.5 Potential Spread of Invasive Alien Plant Species	45
11. Cumulative Impacts	45
11.1 Plans	45
11.2 Permitted and Proposed Developments in the Locality	46
11.3 Existing Land-use and On-going Activities	47
11.4 EPA Licensed Facilities	47
12. Mitigation	49
12.1 Mitigation by Design	49
12.2 Mitigation by Management (Construction Phase)	50

12.2.1	General Protection of Fauna	50
12.2.2	Surface Water and Pollution Prevention	50
12.2.3	Invasive Alien Plant Species	52
12.3	Decommissioning Phase Mitigation Measures	52
13.	Residual Effects	53
14.	Conclusion	55
15.	References	56

Tables

Table 4-1: Criteria for Assessing Impact Quality based on EPA Guidance (2022).	14
Table 4-2: Criteria for Assessing Effect Significance based on EPA Guidance (2022).	15
Table 6-1: Natura 2000 Sites within the wider study area.	18
Table 6-2: NBDC Bat Habitat Suitability Value Ratings for Hectad O13.	29
Table 7-1: Evaluation of Habitats within the Proposed Development Site.....	35
Table 7-2: Evaluation of Faunal Species in Relation to the Proposed Works	36
Table 10-1: Summary of Potential Construction Phase Effects on Important Ecological Features (IEFs)	42
Table 10-2: Summary of Potential Operational Phase Effects on Important Ecological Features (IEFs)	44
Table 10-3: Summary of Potential Decommissioning Phase Effects on Important Ecological Features (IEFs)	45
Table 11-1: IEL/IPC Licensed Facilities Proximal to the Proposed Development Site	47
Table 13-1: Summary of Predicted Residual Effects on Ecological Receptors.....	53

Figures

Figure 2-1: Site location and context	4
Figure 2-2: Proposed Development Site and Diageo IEL Boundary Interface	5
Figure 3-1: Proposed Development Footprint.....	6
Figure 5-1: Location in the Context of the Local Surface Water Network.	17
Figure 6-1: Natura 2000 Sites (SPA) within the wider study area.	20
Figure 6-2: Natura 2000 Sites (SPA) within the wider study area	21
Figure 6-3: Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) within the wider study area	22
Figure 6-4 Large gull (Larus. spp) observed perched within the Proposed Development site	23

Figure 6-5: Habitats identified within the study area 24

Figure 6-6: Preliminary Roost Assessment of Buildings within the Proposed Development Site..... 31

Figure 11-1: Proposed Development Site and Diageo IEL Boundary Interface 49

Project No.	Doc. No.	Rev.	Date	Prepared By	Checked By	Approved By	Acceptance Code / Status
27057	27057-ZZ-ZZZ-RP-MWP-EC-6018	Rev. A	14/08/2026	Rob Beer	Salona Reddy	Antía Prados	FINAL

MWP, Engineering and Environmental Consultants
Address: Park House, Bessboro Road, Blackrock, Cork, T12 X251, Ireland
www.mwp.ie



Disclaimer: This Report, and the information contained in this Report, is Private and Confidential and is intended solely for the use of the individual or entity to which it is addressed (the “Recipient”). The Report is provided strictly on the basis of the terms and conditions contained within the Appointment between MWP and the Recipient. If you are not the Recipient you must not disclose, distribute, copy, print or rely on this Report (unless in accordance with a submission to the planning authority). MWP have prepared this Report for the Recipient using all the reasonable skill and care to be expected of an Engineering and Environmental Consultancy and MWP do not accept any responsibility or liability whatsoever for the use of this Report by any party for any purpose other than that for which the Report has been prepared and provided to the Recipient.

1. Introduction

This report has been prepared by Malachy Walsh and Partners Engineering and Environmental Consultants (MWP) to accompany a Strategic Infrastructure Development (SID) planning application being made by the Electricity Supply Board (ESB) ('the Applicant') to An Coimisiún Pleanála (ACP) for the construction and operation of a 110 kV / MV Gas Insulated Switchgear (GIS) electrical substation and approximately two kilometres of underground electrical cabling (hereafter referred to as the 'proposed development') at a brownfield site currently owned by Diageo in Dublin 8 (hereafter referred to as the 'proposed development site').

This report considers habitats, flora, fauna and other potential ecological receptors within the zone of influence (ZOI) of the Proposed Development in the context of the relevant statutory requirements. Potential cumulative impacts are considered with consented, planned and reasonably foreseeable projects. Should the likelihood of significant environmental effects on the receiving environment exist, alternative solutions, avoidance and mitigation measures will be recommended such that significant environmental effects on the receiving environment as a result of the Proposed Development will be avoided with implementation of all recommended measures.

A Natura Impact Statement (NIS), Appropriate Assessment Screening Report (AASR) and outline Construction Environmental Management Plan (oCEMP) have also been prepared by MWP in relation to the Proposed Development and will be submitted as part of the planning application.

1.1 Scope of Assessment

The purpose of this EcIA is to identify, evaluate and assess the potential ecological effects arising from the construction and operation of the Proposed Development, comprising a 110 kV / MV Gas Insulated Switchgear (GIS) electrical substation at a brownfield site currently owned by Diageo in Dublin 8, together with associated underground grid connection infrastructure.

The assessment has been undertaken in accordance with current national and international best-practice guidance.

The objectives of the EcIA are to:

- Establish an ecological baseline of the Proposed Development through desk study and site walkover survey;
- Identify and evaluate the natural environment and relevant ecological features within the Zone of Influence (ZOI) in compliance with current methodologies outlined under National and International best practise guidelines;
- Assess the potential for direct, indirect and cumulative impacts arising from the Proposed Development during the construction and operational phases on biodiversity; and
- Identify mitigation measures, where required, to avoid or reduce potential adverse effects.

The scope of the assessment includes all elements of the Proposed Development, including the substation and associated underground grid connection works within the application boundary, and considers potential linkages to the surrounding urban environment.

Further details of the assessment methodology are provided in Section 4.

1.2 Statement of Competency

This EclA report has been prepared by Rob Beer (MCIEEM, BSc. MRSB) Senior Ecologist at MWP. Rob is a Senior Ecologist with eight years' experience, since graduating in 2017. Before joining MWP in March 2024, Rob had previously been working in the UK. Rob is experienced in a range of standard and complex ecological surveys in accordance with British standards, including, but not limited to, UK habitat classification surveys and JNCC Phase 1 surveys, Biodiversity Net Gain (BNG) metric and reporting, bat surveys (stages 1 & 2), reptile surveys, badger surveys, & great crested newt (GCN) surveys. Rob has also authored ecological reports within an Irish setting including, but not limited to, Screenings for Appropriate Assessment Reports, Natura Impacts Statements and Ecological Impact Assessments. Rob is a holder of a Natural England bat license level 2, a holder of a Natural England GCN license level 1 and has a FISC level 2 certificate. Rob also has extensive experience with ecological clerk of works (ECOW) for a range of species across diverse project types, from small household projects to large infrastructure projects such as rail and road schemes. This includes conducting supervisions and overseeing licenced works in relation to bat, badger and GCN.

This report was reviewed by Salona Reddy. Salona is a Senior Ecologist (MSc, BSc) who has been working full-time with MWP since January 2024. Salona has a master's degree in environmental science and has over 10 years consultancy experience of undertaking and contributing to EIAR and Ecological reports for a variety of projects. She is familiar with various ecological survey methodologies including habitat/survey mapping and zoological surveys and has worked on research teams both in Ireland and abroad. She has undertaken assessments for a wide variety of projects and has authored many ecological reports including Screenings for Appropriate Assessment Reports (Stage 1), Natura Impact Statements (Stage 2), and Ecological Impact Assessments.

2. Development Setting

2.1 Site Location and Context

The Proposed Development site is located on unoccupied brownfield land owned by Diageo, immediately adjacent to the Diageo Guinness Brewery at James's Street. The site currently comprises a number of vacant and derelict buildings, together with an associated yard area.

It is bounded to the north and northeast by the industrial lands of the Guinness Brewery. Steeven's Lane forms the western boundary, serving primarily pedestrians, cyclists, and the Luas Red Line, with limited vehicular access restricted to the site and St Patrick's University Hospital located on the opposite side of Steeven's Lane.

To the south, the Proposed Development site is bordered by mixed-use and residential properties, including 132-134 James's Street and Steeven's Gate Apartments.

The site location within the greater Dublin area is shown in Figure 2-1 below.

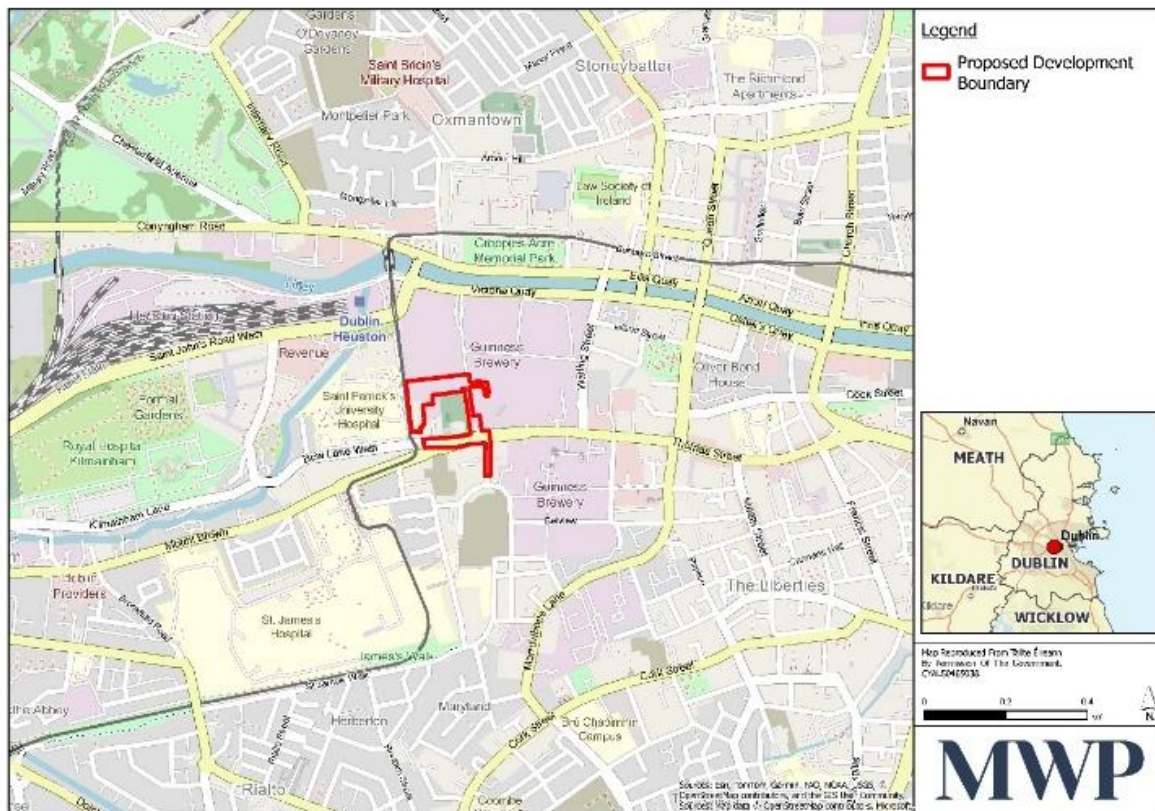


Figure 2-1: Site location and context

2.1.1 Interaction with Diageo IEL Site Boundary

Diageo is the owner of two large strategic industrial and commercial landbanks amounting to c. 20ha located to the north and south of James's Street (R810) in the southwest Dublin inner city (outlined in blue in Figure 2-2). The land to the north of James's Street accommodates the majority of Diageo's operational and brewing activities. The lands south of James's Street include a mix of brewing and support operations, including underutilised buildings relating to Guinness historic brewing options. Collectively, these lands are encompassed within Diageo's Industrial Emissions Licence (IEL) site boundary (Licence Ref. No. P0301-04).

The Proposed Development site forms part of the wider Diageo landholding and is located immediately southwest of the active brewery operations. While the proposed substation is located outside the IEL boundary, a section of the associated underground grid connection (UGC) infrastructure is proposed within the licensed area. The relationship between the Proposed Development site, the proposed works and the Diageo IEL site boundary is illustrated in Figure 2-2.

The substation has been carefully positioned within available brownfield lands to maintain an appropriate separation from existing operational areas, while facilitating the delivery of the required electrical connection infrastructure.

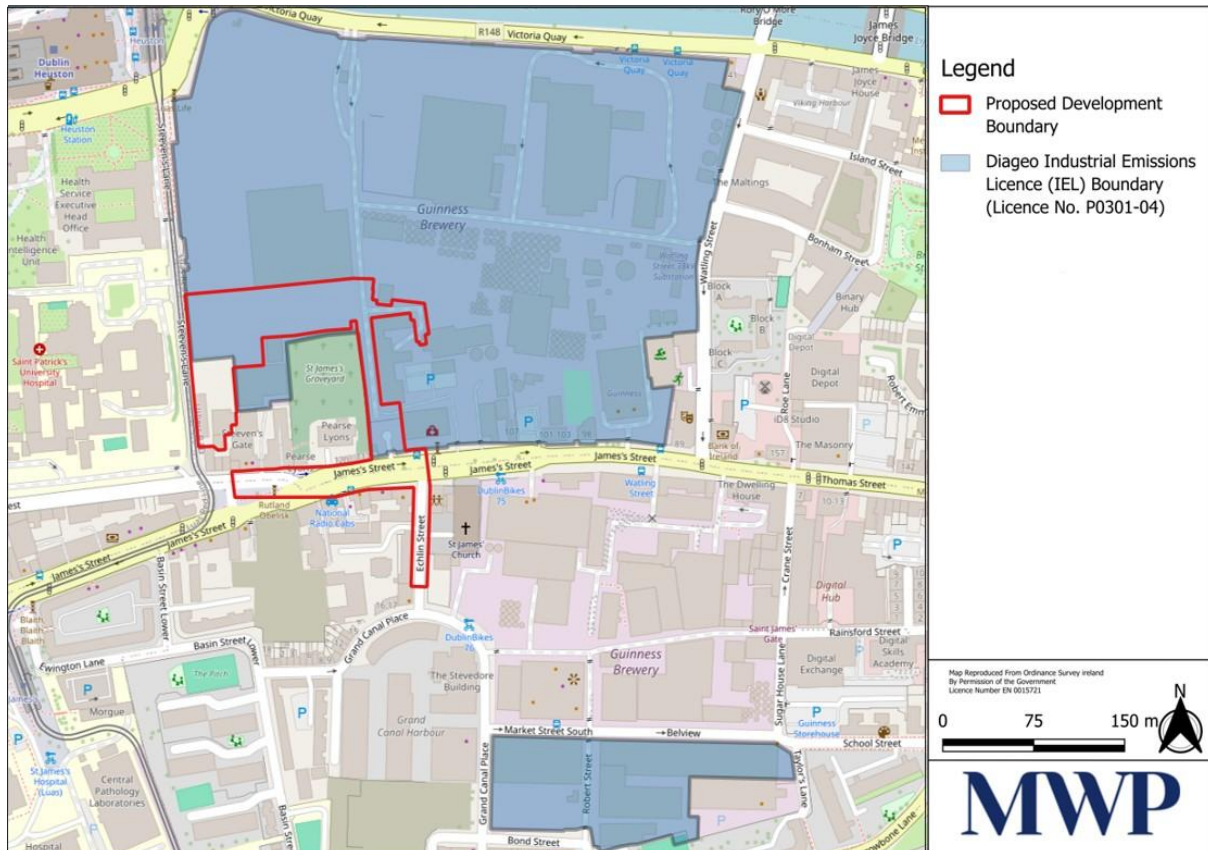


Figure 2-2: Proposed Development Site and Diageo IEL Boundary Interface

3. Characteristics of Proposed Development

The characteristics of the Proposed Development are fully described in the Planning and Environmental Considerations Report (PECR) accompanying this planning application, and this EcIA Report should be read in conjunction with it. In addition, full details of the proposed design, layout, elevations, sections, and associated site development works are provided within the planning drawings.

A summary of the Proposed Development is provided below to set the context and aid clarity.

Figure 3-1 shows the Proposed Development footprint and illustrates the positions of the Proposed Development components and infrastructure within the development boundary.

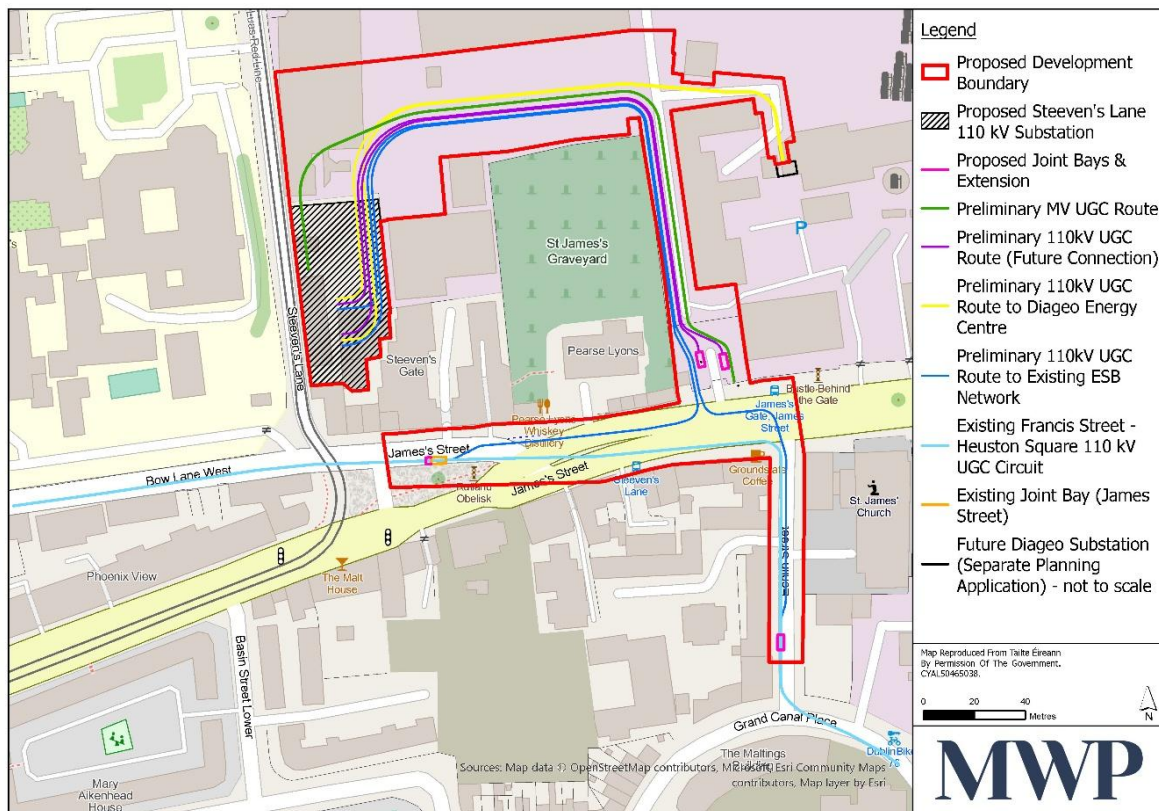


Figure 3-1: Proposed Development Footprint

3.1 Proposed Substation Development

The Proposed Development will consist of a 110 kV / MV electrical substation and will include the following elements:

- Demolition of all existing buildings on site including a former office building, warehouse and storage shed;
- The construction of 110 kV / MV substation compound with the following electrical plant within the substation:
 - A two storey 110 kV / MV Gas Insulated Switchgear (GIS) building (c. 559 m²; 14.1 m in height);
 - Two banded 110 kV / MV transformers in transformer bays (c. 5.75 m in height) and surrounding fire walls (c.6.1 m high) and associated electrical equipment;
 - All associated and ancillary site development and infrastructural works, including site clearance, demolition of existing western boundary wall and gates, provision of new boundary treatments and gates along the western site boundary, replacement of the existing retaining wall along the northern and northeastern site boundary, provision of new boundary treatments along the southern and south eastern site boundary, site services including electrical circuits, lighting, telecommunications and drainage.

3.2 Proposed Connection to Electricity Grid

The Proposed Development will also involve the installation of six 110 kV underground cable (UGC) circuits connecting the proposed Steeven's Lane 110 kV substation to key locations, including:

- loop-in connection joint bays on the existing Francis Street – Heuston Square 110 kV circuit at Bow Lane West and Echlin Street/James's Street,
- Diageo's proposed 110 kV substation, (subject to separate and future consenting process), and
- Ducting for future use to be terminated in joint bays at St James's Gate Medical car park, north of James's Street.

The combined total length of the circuits is approximately 1.5 km, and they will be installed as either double or single circuits.

and

- The installation of 14 circuit MV UGC between the proposed substation and new joint bays at St James's Gate Medical car park, north of James's Street.

4. Methodology

4.1 Legislation, Published Guidance and Relevant Literature

This Ecological Impact Assessment has been prepared in accordance with relevant Irish and European legislation and best practice guidance, including:

- Guidelines for Ecological Impact Assessment in the UK and Ireland – Terrestrial, Freshwater, Coastal and Marine Environments (Chartered Institute of Ecology and Environmental Management, 2018, updated 2024);
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (Environmental Protection Agency, 2022); and
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (Department of Environment, Heritage and Local Government, 2010); and
- Guidelines for Assessment of Ecological Impacts of National Road Schemes (National Roads Authority¹, 2009).

The legislative framework underpinning biodiversity and nature conservation in Ireland has also been considered, including:

- the Wildlife Acts 1976–2021 (as amended);
- the EU Habitats Directive (92/43/EEC);
- the EU Birds Directive (2009/147/EC);
- the European Communities (Birds and Natural Habitats) Regulations 2011–2021; and
- the Planning and Development Act 2000 (as amended).

¹ National Roads Authority, currently known as Transport Infrastructure Ireland (TII). Guidelines available at <https://www.tii.ie/technical-services/environment/planning/Guidelines-for-Assessment-of-Ecological-Impacts-of-National-Road-Schemes.pdf>

Relevant planning policy has also been considered, including the Dublin City Development Plan 2022–2028 (Dublin City Council, 2022).

The assessment has also been informed by standard habitat classification and survey guidance, including:

- A Guide to Habitats in Ireland (Fossitt, 2000); and
- Best Practice Guidance for Habitat Survey and Mapping (Smith et al., 2011).

Relevant publicly available datasets and project-specific information sources used to inform the baseline are outlined in Section 4.4.

4.2 Zone of Influence (ZOI)

The Zone of Influence (ZOI) of the Proposed Development is defined as the area over which ecological features may be affected by the Proposed Development and its associated activities.

The extent of the ZOI varies depending on the nature, scale and location of the Proposed Development, and the sensitivity of ecological receptors.

The Proposed Development is located within a highly urbanised environment and comprises works within previously developed lands, including buildings, hardstanding and associated infrastructure. As such, the ZOI is limited and is largely confined to the application boundary and immediately adjacent areas.

Potential ecological effects are limited to those arising during the construction phase, including site clearance, demolition and associated works. No significant ecological effects are anticipated during the operational phase.

In defining the ZOI, consideration has been given to:

- the nature, location and scale of the Proposed Development;
- the urban context of the receiving environment;
- the presence and sensitivity of ecological features within and adjacent to the site; and
- potential pathways for effects, including disturbance associated with construction activities.

Given the absence of ecological connectivity to sensitive habitats or designated sites, and the highly modified nature of the receiving environment, the ZOI is considered to be localised in extent.

Potential effects on European sites and their qualifying interests are considered separately within the accompanying NIS.

4.3 Study Area

The study area for the Proposed Development comprises the full extent of the application boundary, including the substation site and associated underground grid connection works, together with immediately adjoining lands where relevant.

The study area includes habitats within the site and any adjacent areas considered to be ecologically connected to the Proposed Development.

Habitats within the study area are described and classified in accordance with Fossitt (2000).

4.4 Desktop Study

A comprehensive desktop study of relevant available published data, data sets and publications for the site and the geographical area extending away from it was collated. The available information included sites designated for nature conservation, other ecologically sensitive areas and important features, and habitats and species of interest.

The available ecological data reviewed included the following:

- Ordnance Survey Ireland (OSI) – aerial photography, 1:5,000 mapping and GeoHive online mapping resources.
- National Parks and Wildlife Service (NPWS) – Protected Sites and Species data.
- National Biodiversity Data Centre (NBDC) – Biodiversity Maps.
- Central Statistics Office (CSO) – Interactive Data Visualisations.
- BirdWatch Ireland – Irish Wetland Bird Survey (I-WeBS) online datasets.
- Geological Survey Ireland (GSI) – spatial resources and mapping.
- Environmental Protection Agency (EPA) – Water Framework Directive (WFD) datasets and dashboards.
- Dublin City Development Plan (2022–2028).
- Teagasc – online soil maps.
- Bat Conservation Ireland – online resources.
- Stage 1: Appropriate Assessment - Screening and Stage 2: Natura Impact Statement. St. James's Gate De-carbonisation and Water Recovery Project. November 2024. Written by Malone O'Regan Environmental (MOR) on behalf of Diageo Ireland. (Dublin City Council Planning Application Number: WEB2472/24; Permission granted: 26th February 2025).
- Bird Report. St. James's Gate De-carbonisation and Water Recovery Project. November 2024. Written by Malone O'Regan Environmental (MOR) on behalf of Diageo Ireland. (Dublin City Council Planning Application Number: WEB2472/24; Permission granted: 26th February 2025).
- Environmental Impact Assessment Report (EIAR) – Volume II. St. James's Gate De-carbonisation and Water Recovery Project. November 2024. Written by Malone O'Regan Environmental (MOR) on behalf of Diageo Ireland. (Dublin City Council Planning Application Number: WEB2472/24; Permission granted: 26th February 2025).
- Other published sources and research referenced throughout this report. <https://www.geohive.ie> <https://www.npws.ie> <https://maps.biodiversityireland.ie/Map> [https://visual.cso.ie/?body=entity/ima/cop/2016&boundary=C03786V04535&guid=2AE19629236413A3E05500000000000001](https://visual.cso.ie/?body=entity/ima/cop/2016&boundary=C03786V04535&guid=2AE19629236413A3E055000000000001) <https://birdwatchireland.ie/our-work/surveys-research/research-surveys/irish-wetland-bird-survey/> <https://storymaps.arcgis.com/stories/ae9feb997c7248578a0276e965bdcf96> <https://www.catchments.ie/wfd-data-dashboards/> <https://www.dublincity.ie/planning-and-land-use/learn-about-councils-plans-city/dublin-city-development-plans/dublin-city-development-plan-2022-2028/read-dublin-city>

4.4.1 Database Searches and Data Requests

A review of available ecological data was undertaken to inform the baseline for the Proposed Development. Database searches were carried out using publicly available datasets, including those provided by the NPWS and the NBDC.

The study area is located within Ordnance Survey National Grid hectad O13. A data request for protected and notable species records within hectad O13 was submitted to the NPWS in April 2026. In addition, relevant ecological records were obtained through publicly available NBDC datasets.

The NPWS response included records of protected and threatened species together with information relating to known Peregrine Falcon nesting activity recorded during the 2017 National Peregrine Survey. All records returned by the NPWS, including historical records, were reviewed and considered during the desktop study and ecological assessment.

For the purposes of presenting the desktop study results in **Appendix 1**, a short summary of the records in **Table 1** and records from the previous 10 years have been included in **Table 2**. Duplicate records were removed to improve clarity and interpretation of the data in **Table 2**. Historical records were retained within the desktop review and considered where relevant to the ecological assessment but are not reproduced within **Appendix 1**. Information obtained from the NPWS and NBDC was used to inform the field surveys, identify potential ecological constraints and guide the assessment of potential ecological impacts associated with the Proposed Development.

4.5 Field Surveys

The desktop study was supplemented by a multi-disciplinary ecological walkover survey of the Proposed Development site carried out by a suitably qualified ecologist (SQE) on the 11th of March 2026 and the 6th of July 2026 to inform and provide a comprehensive baseline ecology of the study area.

4.5.1 Habitats and Flora

Baseline habitat and flora surveys were carried out in accordance with the *Best Practice Guidance for Habitat Survey and Mapping* (Smith et al., 2011) to identify habitat features likely to support protected species and record notable plant species within each habitat type. Habitats were identified and classified to Level 3 in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000). A habitat map for the overall Proposed Development site was prepared and is available in (Figure 6-5). Habitats recorded within the Proposed Development site were evaluated with regard to their ecological value and potential links to EU Annex I habitats.

The relative abundance of vascular plant species recorded during the July 2026 survey was estimated using the DAFOR scale (Dominant, Abundant, Frequent, Occasional and Rare), providing a semi-quantitative measure of species abundance within each habitat type.

Habitats and features within the site were assessed for their potential to support faunal species. This included a search for evidence of faunal activity and an appraisal of the suitability of habitats and structures, including buildings, to support protected species such as bats and nesting birds. Any birds observed or heard during the survey were noted.

The ecological features of interest within and adjacent to the site were recorded and used to inform the identification of potential Important Ecological Features (IEFs) associated with the Proposed Development.

4.5.2 Non-native/Invasive Flora

The presence/absences of IAPS including species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011, as amended) was evaluated within the study area during the multi-

disciplinary ecological walkover surveys undertaken by MWP. Further information including survey results for IAPS can be found in Section 6.2.4, below.

4.5.3 Fauna

Fauna assessment considers both non-volant and volant mammals, which are addressed independently below. Other fauna including birds, amphibians/reptiles and other taxonomic groups are also addressed below. The conservation status of mammals within Ireland and Europe were considered, with status assessment indicated in the following: Irish Wildlife Acts 1976-2012, EU Habitats Directive and the Red List for Terrestrial Mammals (Marnell et al 2019). The habitat types recorded within the study area were used to inform the assessment of fauna likely to utilise the site and surrounding area. Habitats recorded during survey were assessed for their suitability to support protected and notable fauna, including bats, breeding birds and terrestrial mammals. Particular consideration was given to buildings and structures with potential to support roosting bats, as well as habitats capable of supporting nesting birds and common urban mammal species.

4.5.3.1 Non-volant Mammals

The habitats within the study area were searched for any evidence of terrestrial mammal activity such as prints, droppings, burrows, feeding signs and activity trails/disturbed vegetation. The surveys had regard to '*Animal Tracks and Signs*' (Bang and Dahlstrom, 2006).

Given the highly urbanised nature of the site and absence of watercourses within the application boundary, the assessment of non-volant mammals was based on the identification of suitable habitat and any evidence of mammal activity recorded during the ecological walkover survey.

Particular attention was paid to indicators of protected and notable mammal species that could potentially occur within the wider area, including badger (*Meles meles*), West European hedgehog (*Erinaceus europaeus*), Irish stoat (*Mustela erminea hibernica*) and otter (*Lutra lutra*). Areas of suitable habitat were inspected for signs of activity, including setts, latrines, tracks, hair, scratch marks, feeding remains, holts, pathways and areas of digging where relevant.

The survey had regard to '*Guidelines for the Treatment of Badgers prior to the Construction of National Roads Schemes*' (NRA, 2005) and '*Surveying for Badgers: Good Practice Guidelines*' (Scottish Badgers, 2018). The assessment of otter was based on habitat suitability and evidence of activity associated with hydrologically connected watercourses in the wider study area.

4.5.3.2 Bats

A Preliminary Roost Assessment (PRA) of the buildings within the Proposed Development site was undertaken by a suitably qualified ecologist on the 11th of March 2026, in accordance with *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2023).

The assessment comprised detailed external and internal visual inspections (where accessible) of all three buildings within the Proposed Development site (B1–B3). Buildings were inspected from ground level and suitable vantage points, where available, with reference to features known to support roosting bats in accordance with Collins (2023).

The survey involved a systematic search for potential roosting features (PRFs), including but not limited to:

- gaps and crevices within brickwork or cladding;
- soffits, fascias and roof interfaces;

- lifted or missing roof tiles;
- cracks within walls or structural joints; and
- features associated with weathering, damage or building fabric deterioration.

The survey also included a search for evidence of bat activity, including:

- bat droppings;
- staining around potential access points;
- feeding remains; and
- audible or visual signs of bat presence.

Where accessible, internal roof spaces, suspended ceilings and exposed roof structures were inspected to determine whether external features provided access to enclosed Potential Roost Features (PRFs). No endoscope inspections were undertaken, as no PRFs requiring further investigation were identified during the visual assessment and roof coverings could not be safely accessed.

Based on the findings of the survey, each building was assigned a level of bat roosting potential (negligible, low, moderate or high), in accordance with established guidance.

4.5.3.3 Birds

The Proposed Development site was assessed for its suitability to support breeding birds during ecological walkover surveys undertaken on 11 March 2026 and 6 July 2026. Buildings, structures and vegetation within the site were inspected for evidence of nesting birds, including active nests, nesting material, droppings, feathers and territorial behaviour, together with an assessment of the suitability of habitats to support breeding bird species.

In addition to the site-specific surveys, ornithological survey information contained within the Bird Report: St. James's Gate De-carbonisation and Water Recovery Project (Malone O'Regan Environmental (MOR), 2024), prepared on behalf of Diageo Ireland, was reviewed to provide supporting ecological context. These surveys were undertaken between December 2023 and June 2024 for the wider St. James's Gate De-carbonisation and Water Recovery Project and covered buildings and infrastructure within the wider Diageo landholding. The surveys did not include the Proposed Development site and have therefore been used only to provide contextual information on bird usage of similar urban habitats within the wider St. James's Gate area.

The surveys documented in the Bird Report comprised:

- a winter bird suitability assessment undertaken on 18 December 2023 to assess the suitability of habitats within the wider Diageo landholding to support overwintering bird species;
- four breeding urban gull rooftop inspection surveys undertaken on 22 March, 23 April, 27 May and 21 June 2024; and
- three breeding Peregrine Falcon vantage point surveys undertaken between April and June 2024.

The winter bird suitability assessment concluded that the wider Diageo site provided suboptimal habitat for overwintering birds, with no suitable habitat identified for wintering geese, swans or waders. Gulls were observed using rooftops for perching; however, they were not considered to be exclusively associated with the site and were recorded moving throughout the surrounding urban area.

The breeding gull surveys confirmed nesting by herring gull (*Larus argentatus*) and lesser black-backed gull (*Larus fuscus*) on flat rooftops, fermentation tanks and existing structures within the wider St. James's Gate landholding, including the Flaking Plant, Old Keg Plant and New Keg Plant. These findings demonstrate that suitable rooftop nesting

habitat for urban gulls is present within the wider Diageo estate. The breeding Peregrine Falcon surveys recorded no evidence of breeding Peregrine Falcon within the survey area during the 2024 breeding season, and the existing nest boxes were not utilised by the species.

The findings of the MOR (2024) bird surveys have been used to provide contextual information on bird usage within the wider St. James's Gate area. The ornithological assessment of the Proposed Development is based on the site-specific ecological walkover surveys undertaken in March and July 2026.

4.5.3.4 Amphibians and Reptiles

The site was assessed for its potential to support amphibians and reptiles. Owing to the highly urbanised nature of the site and the absence of suitable habitat features, no targeted surveys were considered necessary.

4.5.3.5 Other Fauna

The site was reviewed for its potential to support other protected or notable faunal groups. Given the highly urbanised nature of the site and absence of suitable habitat, no specific surveys for other faunal groups were considered necessary.

4.6 Assessment Criteria

This section outlines the criteria used to evaluate the importance of ecological features and to assess the potential ecological effects of the Proposed Development, with reference to relevant guidance and legislation.

4.6.1 Evaluation

The evaluation of ecological features and the assessment of potential impacts follow methodologies set out in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2018; updated 2024) and the *Guidelines for Assessment of Ecological Impacts of National Road Schemes* (NRA, 2009a). The *EPA (2022) Guidelines on Information to be Contained in Environmental Impact Assessment Reports* were also considered.

The NRA (2009a) guidelines provide a framework for determining the conservation value of ecological features based on a geographic scale. This approach has been used to assess the importance of habitats and species identified within the Proposed Development site.

Ecological features are assigned to one of the following categories:

- International
- National
- County
- Local Importance (higher value)
- Local Importance (lower value)

At the lower end of the scale, features of Local Importance (lower value) comprise habitats and species that are widespread and of limited ecological significance. Features of higher value may include designated sites, protected habitats or species, or features of conservation importance.

4.6.2 Important Ecological Features (IEFs)

The ecological field survey, in conjunction with the desk study, provides an overview of the baseline ecological environment of the study area.

Relevant ecological features of interest, including habitats, flora, fauna, and any ecological resources identified during the desk study and field survey, are described in Section 4. These features are evaluated based on their conservation importance at a local, regional, national or international level, in accordance with the criteria set out in Section 4.6.

On the basis of this evaluation, those features considered to be of sufficient ecological importance to require detailed assessment are identified as Important Ecological Features (IEFs). IEFs are taken to comprise those features evaluated as being of Local Importance (higher value) or greater.

The significance of the ecological effects of the Proposed Development is assessed with regard to the identified IEFs.

4.6.3 Impact Assessment

The ecological significance of the effects of the Proposed Development are assessed with regard to CIEEM (2018). This guidance states that, *"for the purposes of EclA, a 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for Important Ecological Features or for biodiversity in general."*

Conservation objectives may be specific or broad and can be considered at a range of scales from international to local (CIEEM, 2018). An impact on the conservation status of a habitat or species is considered to be significant where it results in a change in conservation status.

Significant effects encompass impacts on the structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution). CIEEM (2018) defines conservation status as follows:

- **Habitats:** conservation status is determined by the sum of the influences acting on a habitat that affect its extent, structure, function, distribution and typical species within a given geographical area.
- **Species:** conservation status is determined by the sum of influences acting on a species that affect its abundance and distribution within a given geographical area.

Significant effects should be qualified with reference to an appropriate geographic scale (CIEEM, 2018).

EPA (2022) guidance and criteria were also considered in determining significance and for assessing impact. The criteria for assessing impact quality and significance are set out in Table 4-1 and Table 4-2 below.

Table 4-1: Criteria for Assessing Impact Quality based on EPA Guidance (2022).

Quality of Effect	Criteria
Positive	Change that improves the quality of the environment (for example, by increasing species diversity; or improving reproductive capacity of an ecosystem, or by removing nuisances or improving amenities).
Neutral	No effects or effects that are imperceptible within normal bounds of variation or within the margin of forecasting error.
Negative/Adverse	A change which reduces the quality of the environment (e.g., lessening species diversity or diminishing the reproductive capacity of an ecosystem; or damaging health/property or by causing nuisance).

Table 4-2: Criteria for Assessing Effect Significance based on EPA Guidance (2022).

Significance of Effects	Definition
Imperceptible	An effect capable of measurement but without significant consequences
Not significant	An effect which causes noticeable changes in the character of the environment but without significant consequences
Slight	An effect which causes noticeable changes in the character of the environment without affecting its sensitivities
Moderate	An effect that alters the character of the environment in a manner that is consistent with existing and emerging baseline trends
Significant	An effect which, by its character, magnitude, duration or intensity significantly alters a sensitive aspect of the environment
Very significant	An effect which, by its character, magnitude, duration or intensity significantly alters most of a sensitive aspect of the environment
Profound	An effect which obliterates sensitive characteristics

The following terms are used when quantifying the duration and frequency of the potential effects:

- Momentary – effects lasting from seconds to minutes.
- Brief – effects lasting less than a day.
- Temporary – effects lasting less than a year.
- Short-term – effects lasting 1 to 7 years.
- Medium term – effects lasting 7 to 15 years.
- Long term – effects lasting 15 to 60 years.
- Permanent – effects lasting over 60 years.
- Reversible – effects that can be undone, for example through remediation or restoration.
- Frequency – How often the effect will occur (once, rarely, occasionally, frequently, constantly – or hourly, daily, weekly, monthly, annually).

Where ecological effects are assessed to be potentially significant, mitigation measures are proposed to remove or reduce the effects. The significance of the cumulative effects of the Proposed Development is also assessed by determining the ecological effects of the proposal in combination with other developments that either have planning permission, are under construction or are already in existence within the area. The cumulative impact with existing activities in the area is also considered in terms of potential in-combination effects. The significance of the residual effects after mitigation is then assessed.

5. Description of Existing Environment

5.1 General Site Description

The Proposed Development site extends beyond the substation site and comprises previously developed lands located within a highly urbanised environment at Steeven's Lane, Dublin 8, extending through the wider St James's Gate / Diageo complex and adjoining public roads.

The site is characterised predominantly by existing built infrastructure, industrial buildings, roads and extensive hardstanding typical of a dense urban environment. Within the proposed substation site, three existing structures are present, comprising a shed (B1), an office-type building (B2), and a warehouse-type building (B3).

Land cover within the development site is dominated by buildings, roads and concrete or asphalt hardstanding. Within the substation site, these artificial surfaces are classified as Buildings and Artificial Surfaces (BL3) in accordance with Fossitt (2000) and account for approximately 95% of the site area.

Vegetation is generally limited throughout the Proposed Development. Within the proposed substation site this comprises small areas of recolonising bare ground (ED3), representing approximately 5% of the site, characterised by sparse vegetation dominated by Butterfly-bush (*Buddleja davidii*), with occasional bramble (*Rubus fruticosus* agg.) and nettle (*Urtica dioica*). Outside the proposed substation site, vegetation is limited to incidental ornamental planting and scattered street trees associated with the surrounding road network and the wider Diageo complex. These features are small, fragmented and embedded within the surrounding urban environment and do not constitute discrete habitats for the purposes of the Fossitt (2000) classification. No watercourses, drainage ditches, open water features or culverts occur within the Proposed Development site boundary.

The surrounding area is characterised by mixed urban land uses, including the St James's Gate / Diageo complex, roads and associated infrastructure, commercial and residential buildings, and St James's Hospital, all typical of the central Dublin environment.

5.2 Hydrology and Hydrogeology

The Proposed Development site lies within the River Liffey catchment in the Eastern River Basin District. Surface waters within the local catchment discharge to the Liffey Estuary Upper waterbody (Waterbody Code: IE_EA_090_0400), located approximately 330 m north of the Proposed Development site. The Liffey Estuary Upper flows eastwards through Dublin City into the Liffey Estuary Lower waterbody before ultimately discharging to Dublin Bay (Waterbody Code: IE_EA_090_0000), approximately 5.4 km east of the Proposed Development site.

Two additional waterbodies occur within the wider surrounding area: the River Camac (Waterbody Code IE_EA_09C020500; EPA Name: Camac), located approximately 200 m north-west of the site, and the River Poddle (PODDLE_010; Waterbody Code IE_EA_09P030800), located approximately 950 m east of the site. Both watercourses flow northwards before discharging to the River Liffey within the city centre. Based on review of aerial imagery, sections of both the River Camac and River Poddle are culverted within the surrounding urban environment.

The Proposed Development is underlain by the Dublin Groundwater Body (IE_EA_G_008), which is currently assigned a 'Good' Water Framework Directive (WFD) status (2019–2024) by the EPA, with an overall risk status of 'Review'. According to Geological Survey Ireland (GSI) mapping, groundwater beneath the site has a Moderate Vulnerability classification, reflecting an estimated 3–5 m thickness of overlying subsoils beneath predominantly artificial surfaces. The underlying bedrock aquifer is classified as a Locally Important Aquifer Bedrock which is Moderately Productive only in Local Zones (LI). The groundwater body has maintained Good chemical and quantitative status throughout the current monitoring period.

Surface water from the proposed substation site currently drains to the existing combined sewer along Steeven's Lane, which forms part of the urban drainage infrastructure serving the area. Similarly, surface water from the underground cable works along James's Street drains to the public combined sewer network. The combined sewer network conveys to the Ringsend WwTP for treatment prior to discharge to Dublin Bay. In contrast, a controlled hydrological connection exists between the Diageo site, where a section of the underground cable works are proposed, and the River Liffey via the existing stormwater outfall (SW-1), under the industrial emissions licence (IEL).

During demolition of the retaining walls and underground cable installation works, a temporary surface water pathway will exist between the construction site and the transitional waterbody, providing a route for runoff to enter the receiving waterbody via the existing stormwater outfall (SW-1).

Potential hydrological pathways associated with the Proposed Development have been considered in the Ecological Impact Assessment and Appropriate Assessment Screening. These pathways are assessed further within the relevant receptor-specific sections of this report.

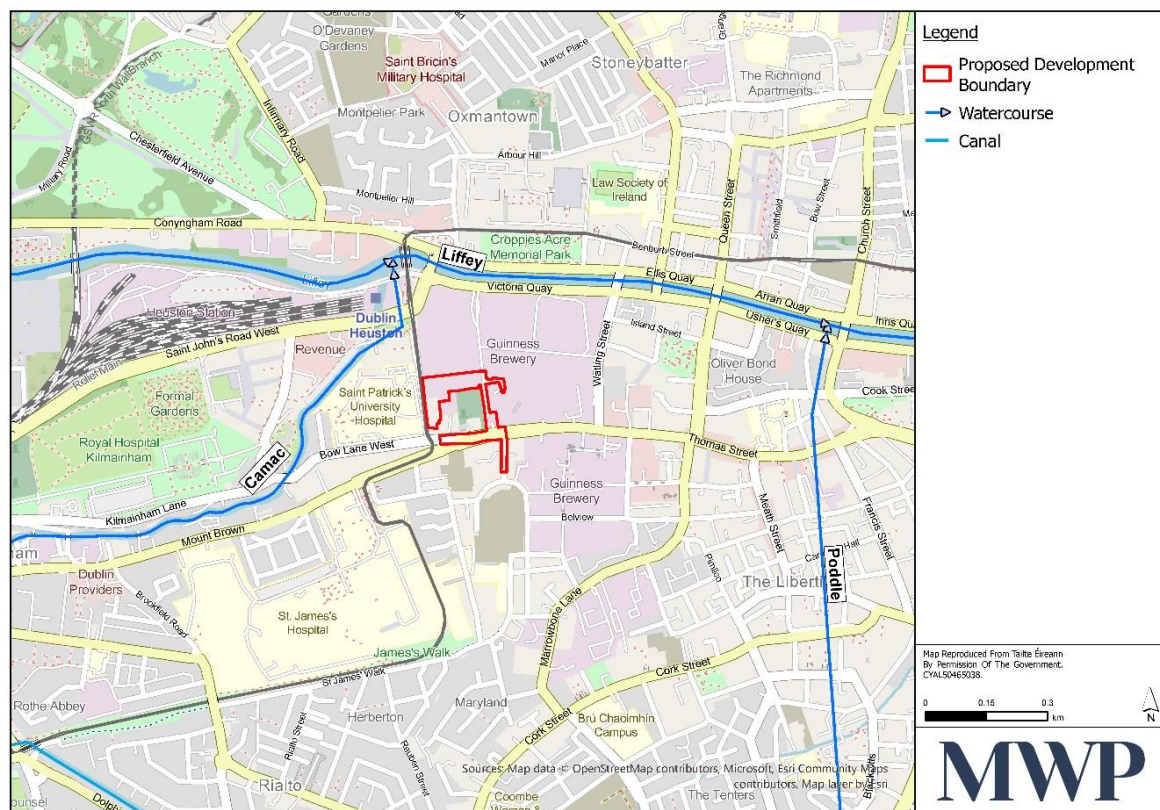


Figure 5-1: Location in the Context of the Local Surface Water Network.

6. Identification of European Sites

6.1 Designated Sites

This section describes the designated sites considered to be within the potential ZOI of the proposal, including their qualifying features, distance from the Proposed Development, and whether a source-receptor ecological pathway exists between the Proposed Development and each designated site.

6.1.1 Sites of International Importance

The Habitats Directive (92/43/EEC) seeks to conserve natural habitats of wild fauna and flora through the designation of Special Areas of Conservation (SACs), whilst the Birds Directive (2009/147/EC) seeks to protect bird species of conservation importance through the designation of Special Protection Areas (SPAs). SACs and SPAs collectively form part of the Natura 2000 network of protected sites throughout the European Union.

In identifying European sites of relevance to the Proposed Development, regard has been had to the location, nature and scale of the Proposed Development, and the potential for ecological connectivity between the site and designated areas.

The Proposed Development site is located within a highly urbanised environment at Steeven's Lane, Dublin 8, and is not situated within or immediately adjacent to any European site.

The nearest European sites are located within the Dublin Bay complex and comprise a number of SACs and SPAs designated for intertidal, coastal and estuarine habitats, and associated bird species. These sites are located downstream of the Proposed Development within the River Liffey catchment and are hydrologically linked to Dublin Bay via the existing urban drainage network.

On this basis, European sites within the Dublin Bay area are considered to represent the principal designated sites of relevance to the Proposed Development. Although no direct surface water connection to these sites exists, a potential indirect pathway is present via the existing urban drainage network and downstream wastewater infrastructure and has been considered within the accompanying NIS. These sites are identified in Table 6-1 below.

Table 6-1: Natura 2000 Sites within the wider study area.

Designated Site	Site Code	Distance from Development Site	Qualifying Features of Conservation Interest ²
South Dublin Bay & River Tolka Estuary SPA	004024	4.75km northeast	• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Ringed Plover (<i>Charadrius hiaticula</i>) [A137] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Knot (<i>Calidris canutus</i>) [A143] • Sanderling (<i>Calidris alba</i>) [A144] • Dunlin (<i>Calidris alpina</i>) [A149] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Redshank (<i>Tringa totanus</i>) [A162] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Roseate Tern (<i>Sterna dougallii</i>) [A192] • Common Tern (<i>Sterna hirundo</i>) [A193] • Arctic Tern (<i>Sterna paradisaea</i>) [A194] • Wetland and Waterbirds [A999]

² Asterisk denotes a priority habitat considered to be in danger of disappearing

Designated Site	Site Code	Distance from Development Site	Qualifying Features of Conservation Interest ²
North Bull Island SPA	004006	7.3km east	• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046] • Shelduck (<i>Tadorna tadorna</i>) [A048] • Teal (<i>Anas crecca</i>) [A052] • Pintail (<i>Anas acuta</i>) [A054] • Oystercatcher (<i>Haematopus ostralegus</i>) [A130] • Golden Plover (<i>Pluvialis apricaria</i>) [A140] • Grey Plover (<i>Pluvialis squatarola</i>) [A141] • Knot (<i>Calidris canutus</i>) [A143] • Sanderling (<i>Calidris alba</i>) [A144] • Dunlin (<i>Calidris alpina</i>) [A149] • Black-tailed Godwit (<i>Limosa limosa</i>) [A156] • Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157] • Curlew (<i>Numenius arquata</i>) [A160] • Redshank (<i>Tringa totanus</i>) [A162] • Turnstone (<i>Arenaria interpres</i>) [A169] • Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179] • Shoveler (<i>Spatula clypeata</i>) [A857] • Wetland and Waterbirds [A999]
North Dublin Bay SAC	000206	7km east	• 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 (<i>Glauco-Puccinellietalia maritimae</i>) [1330] • Mediterranean salt meadows (<i>Juncetalia maritimi</i>) [1410] • Embryonic shifting dunes [2110] • Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) [2120] • Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] • Humid dune slacks [2190] • <i>Petalophyllum ralfsii</i> (Petalwort) [1395]
South Dublin Bay SAC	000210	5.4km southeast	• 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]

European sites are considered to be of International Importance and are treated as Important Ecological Features (IEFs) in the context of this assessment.

The European sites identified above are located within the wider Dublin Bay complex and are associated with coastal and estuarine habitats and species. Although the Proposed Development site is not located within or adjacent to any European site, an indirect hydrological pathway exists via the existing surface water drainage network to the River Liffey and, subsequently, Dublin Bay.

In the absence of appropriate mitigation, construction activities have the potential to adversely affect downstream water quality through the accidental release of sediment, fuels, oils, concrete washings or other contaminants to the drainage network. Such changes in water quality could indirectly affect aquatic habitats and species within the River Liffey, including waterbird species associated with the downstream European sites. These potential impact pathways have been considered within this EclA, with appropriate mitigation measures identified where required. A detailed assessment of the potential effects on the Qualifying Interests and Conservation Objectives of European sites is provided in the accompanying NIS.

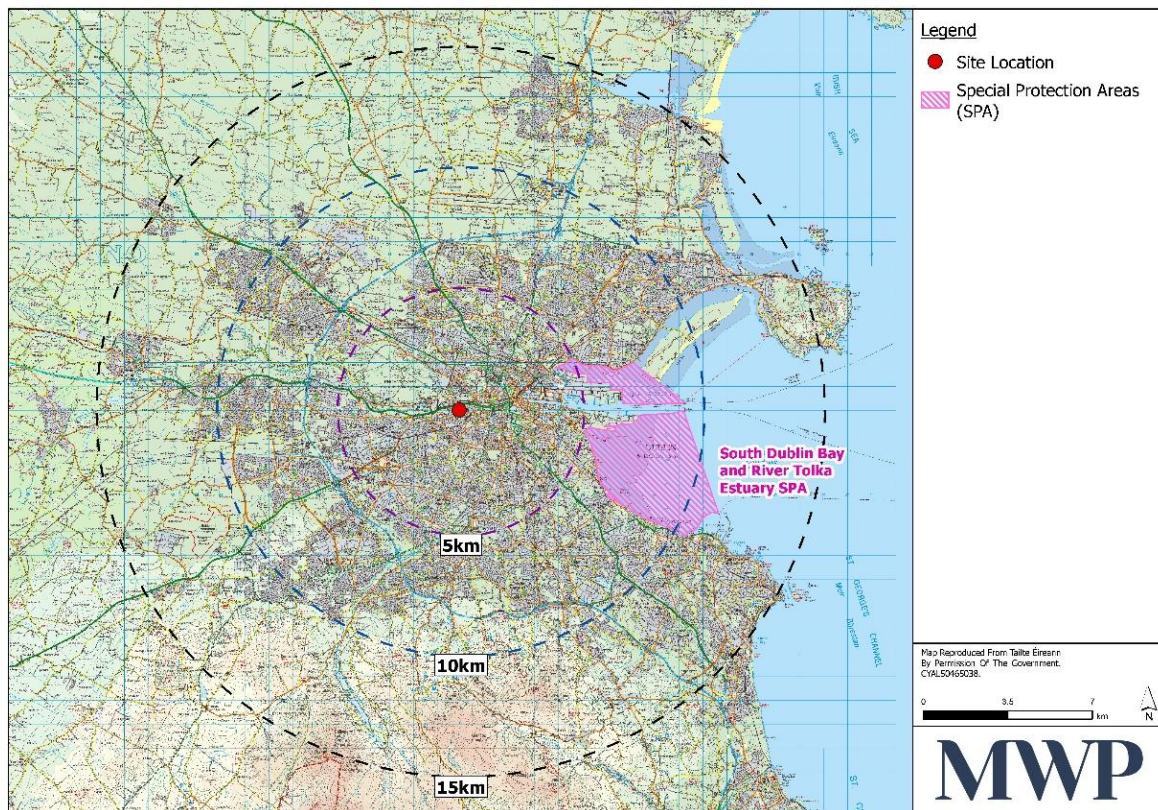


Figure 6-1: Natura 2000 Sites (SPA) within the wider study area.



In Ireland, sites of national importance are designated as Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) under the Wildlife Acts.

A review of nationally designated sites within the wider Dublin area identifies a number of pNHAs (

Given the highly urbanised nature of the Proposed Development site and the absence of direct terrestrial ecological connectivity with these nationally designated sites, they are not considered to represent distinct ecological receptors in the context of this assessment. While hydrological connectivity exists via the urban drainage network and downstream receiving waters, this pathway is considered separately within the hydrology and water quality assessment.



Figure 6-3: Natural Heritage Areas (NHAs) and proposed Natural Heritage Areas (pNHAs) within the wider study area

6.1.3 Additional Sites

In addition to European and nationally designated sites, a review was undertaken of other recognised sites of biodiversity importance within the wider study area.

Three Ramsar Sites occur within the wider Dublin Bay area, namely North Bull Island Ramsar Site, Sandymount Strand/Tolka Estuary Ramsar Site and Baldoyle Bay Ramsar Site. These sites broadly overlap with, or are functionally linked to, European sites previously identified within the study area, including North Bull Island SPA, South Dublin Bay and River Tolka Estuary SPA, North Dublin Bay SAC and South Dublin Bay SAC.

A review of Important Bird Areas (IBAs) identified Dublin Bay IBA, Dublin Islands and Cliffs Marine Extension IBA and Northwest Irish Sea IBA within the wider region. These areas support nationally and internationally important populations of seabirds and waterbirds and are largely associated with coastal and marine habitats.

Given the highly urbanised nature of the Proposed Development site, field surveys confirmed that habitats within the site are dominated by buildings, hardstanding and small areas of sparse ruderal vegetation. Bird observations during the field surveys were limited to common urban species, comprising feral pigeon (*Columba livia domestica*) and herring gull (*Larus argentatus*), which were observed using the surrounding built environment for perching and overflying the site. No evidence of breeding activity, including active nests or territorial behaviour, was recorded within the Proposed Development site. Similarly, no significant foraging habitat or habitat suitable for the qualifying bird species associated with the identified Ramsar Sites or IBAs was identified within the site boundary.



Figure 6-4 Large gull (*Larus. spp*) observed perched within the Proposed Development site

6.1.4 Evaluation of Designated Sites as Ecological Receptors

The ecological field surveys and desk study undertaken for the Proposed Development identified a number of designated sites within the wider study area. These comprise European sites (SACs and SPAs), nationally designated sites (NHAs and pNHAs), Ramsar Sites and Important Bird Areas (IBAs).

In the context of this Ecological Impact Assessment, the European sites identified in Section 6.1.1 are considered to represent Important Ecological Features (IEFs) due to their high conservation value and the potential for indirect hydrological connectivity via the urban drainage network, River Liffey catchment and Dublin Bay receiving environment. Potential impacts on these sites are considered separately within the accompanying NIS.

Several nationally designated sites, including the Royal Canal pNHA, Grand Canal pNHA, Dolphins, Dublin Docks pNHA, North Dublin Bay pNHA and South Dublin Bay pNHA, are associated with the same receiving environment as the European sites identified above. Measures implemented to protect water quality and prevent pollution pathways to the receiving environment are therefore also considered protective of these nationally designated sites.

The remaining nationally designated site identified within the study area, namely Liffey Valley pNHA, is not considered to be ecologically or hydrologically connected to the Proposed Development and no credible impact pathways have been identified. This site is therefore not considered to represent an Important Ecological Feature (IEF) for the purposes of this assessment.

North Bull Island Ramsar Site, Sandymount Strand/Tolka Estuary Ramsar Site and Baldoyle Bay Ramsar Site are considered functionally linked to the European sites identified above and do not represent additional ecological receptors requiring separate assessment.

Similarly, Dublin Bay IBA, Dublin Islands and Cliffs Marine Extension IBA and Northwest Irish Sea IBA support bird assemblages and habitats already represented within the European site network. These sites are therefore not considered separate Important Ecological Features (IEFs) for the purposes of this assessment.

6.2 Habitats and Flora

The desk-based assessment identified habitats and records of legally protected and notable flora within the surrounding landscape. This was supplemented by field surveys undertaken within the study area.

Habitats within the study area were classified in accordance with A Guide to Habitats in Ireland (Fossitt, 2000). A habitat map is provided in Figure 6-5.

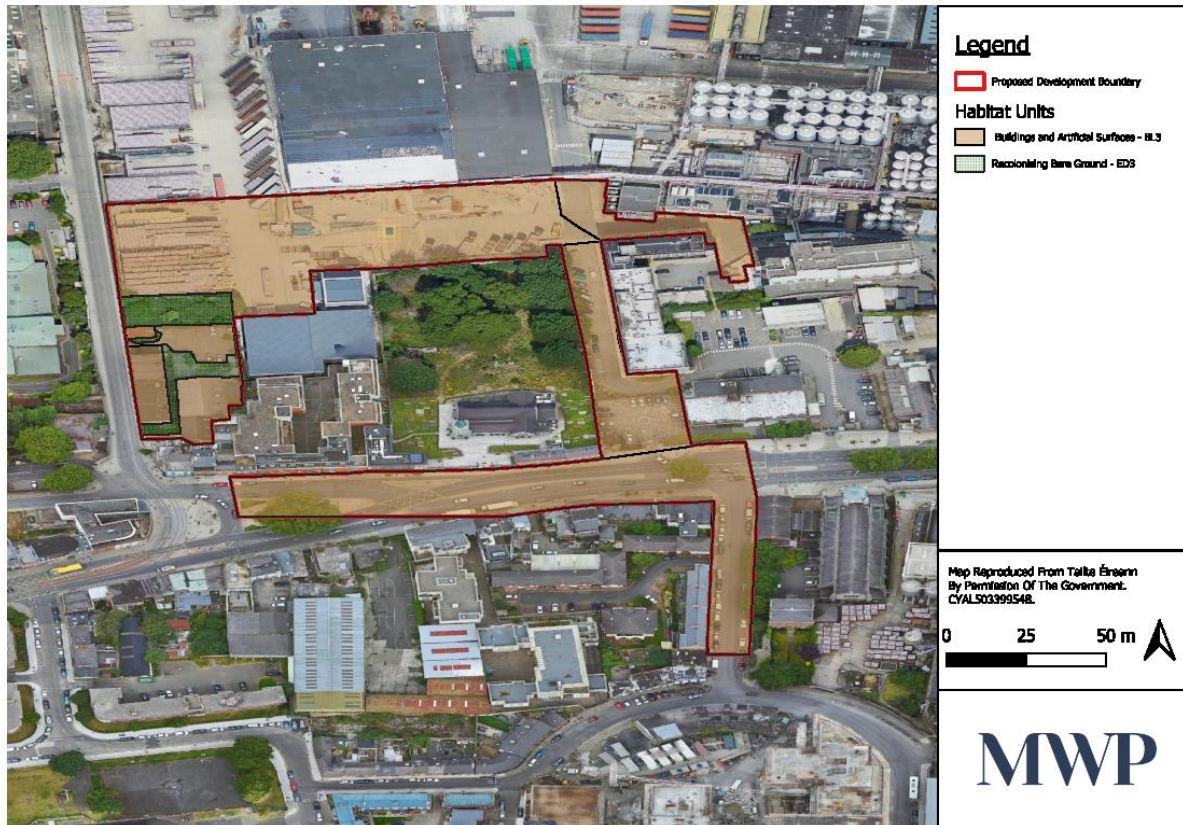


Figure 6-5: Habitats identified within the study area

6.2.1 Habitats

The proposed development site is a brownfield site and, as expected given its location within an urban commercial/recreational/industrial setting, is dominated by artificial surfaces and habitats³. The principal habitat present within the site is classified as **Buildings and artificial surfaces (BL3)** which includes all existing vacant and derelict structures earmarked for demolition and all paved surfaces, hardstanding and roads throughout the entire site. See **Plate 6-1**, below.

³ Habitats as categorised by Fossitt (2000).



Plate 6-1. Northward view of the proposed UGC route through the Diageo complex classified as 'Buildings and artificial surfaces (BL3)', with St James's Graveyard located behind the wall to the left (ITM: 713935 73391).

Vegetation within the proposed development site is sparse and almost completely confined to the proposed substation compound area where, in the absence of any general maintenance, ruderal species such as bramble (*Rubus fruticosus* agg.), nettle (*Urtica dioica*), ivy (*Hedera helix*) and thistle (*Cirsium* spp.) have started to recolonise margins and concrete crevices to create the habitat **Recolonising bare ground (ED3)**. See **Plate 6-2**, below. Occurring less frequently at the site are red deadnettle (*Lamium purpureum*), cat's-ear (*Hypochaeris radicata*), rosebay willowherb (*Chamaenerion angustifolium*), and a small sycamore (*Acer pseudoplatanus*) sapling.



Plate 6-2. Proposed substation site of 'Recolonising bare ground (ED3)' – (left) Southeast-facing view , and (right) East-facing view.

Stands of the non-native butterfly-bush (*Buddleja davidii*) also occur relatively frequently at the proposed substation site and around the sheds to be demolished. The occurrence of this species is not uncommon in urban areas where garden escapees can readily colonise disturbed margins or unmanaged sections of hardstanding – see **Plate 6-2**, above, and **Plate 6-3**, below.

There is no evidence for the presence of any protected fauna or flora species at the proposed development site. Furthermore, habitats within the site are of low ecological value and are unlikely to support any QI species .



Plate 6-3. Derelict shed and concrete yard of the proposed Steeven's Lane substation site (left), and interior view of shed, with ivy (*Hedera helix*) and *Buddleja* observed on each side (right).

6.2.2 Annex I Habitats

None of the habitats recorded within the study area were found to correspond to Annex I habitats listed under the Habitats Directive (92/43/EEC).

6.2.2.1 Desktop Study

A review of available information, including the National Parks and Wildlife Service (NPWS) site synopsis and conservation documentation for European sites within the wider study area, was undertaken to identify the presence of Annex I habitats listed under the Habitats Directive (92/43/EEC).

No Annex I habitats are mapped within or adjacent to the Proposed Development site. The nearest Annex I habitats occur within the North Dublin Bay SAC and South Dublin Bay SAC, where they comprise intertidal mudflats and sandflats, saltmarsh and coastal dune habitats associated with the wider Dublin Bay coastal environment. Although an indirect hydrological connection exists between the Proposed Development site and Dublin Bay via the existing public drainage network and the River Liffey, the Annex I habitats are separated from the Proposed Development by substantial downstream distances and are associated with coastal and estuarine environments. As described in the accompanying NIS, the combination of hydrological separation, tidal mixing and dilution within the estuary, together with the location and nature of the qualifying habitats, means that no viable impact pathway exists between the Proposed Development and these Annex I habitats. Consequently, no Annex I habitats are considered to be at risk of significant effects arising from the Proposed Development.

6.2.2.2 Field Survey Results

No habitats recorded within the Proposed Development site correspond to Annex I habitats listed under Annex I of the Habitats Directive. Habitats present comprise artificial surfaces (BL3) and small areas of recolonising bare ground (ED3), typical of a highly urbanised brownfield environment.

The Proposed Development site does not support Annex I habitats and no direct habitat loss or fragmentation will occur.

Potential indirect effects on Annex I habitats associated with Natura 2000 sites, arising via construction-phase surface water management and the existing urban drainage network, are assessed within the accompanying Appropriate

Assessment documentation. Accordingly, Annex I habitats are not considered further as a separate Important Ecological Feature within this EclA.

6.2.3 Rare and Protected Flora

6.2.3.1 Desktop Study

The Flora (Protection) Order 2022 (S.I. No. 235 of 2022) affords legal protection to a number of plant species in Ireland, including bryophytes and vascular plants. Records obtained from the NPWS following a data request submitted in April 2026 were reviewed alongside records available from the National Biodiversity Data Centre (NBDC). No records of species listed under the Flora (Protection) Order 2022 were identified within hectad O13. The NPWS dataset did, however, identify records of several rare and notable plant species within the hectad, including Opposite-leaved Pondweed (*Groenlandia densa*), Irish Whitebeam (*Sorbus hibernica*) and Autumn Lady's-tresses (*Spiranthes spiralis*). As these records relate to the wider hectad O13 rather than the Proposed Development site itself, they are considered indicative of species known from the surrounding area and were used to inform the baseline ecological assessment.

6.2.3.2 Field Survey Results

No rare or protected plant species were recorded during the site walkover survey. The habitats present, are typical of a highly urbanised environment and are not considered suitable to support species of conservation concern.

6.2.4 Non-native/Invasive Flora

6.2.4.1 Desktop Study

A review of records available from the National Biodiversity Data Centre (NBDC) and information obtained from the NPWS following a data request submitted in April 2026 was undertaken to identify records of non-native and Invasive Alien Species (IAS) within hectad O13.

Records of several non-native and invasive plant species were identified within the wider hectad O13. High-impact invasive species recorded include Japanese knotweed (*Fallopia japonica*) and Himalayan balsam (*Impatiens glandulifera*), both of which are listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended). Records of other non-native species, including giant hogweed (*Heracleum mantegazzianum*), rhododendron (*Rhododendron ponticum*), cherry laurel (*Prunus laurocerasus*) and three-cornered garlic (*Allium triquetrum*), were also identified within the wider area.

The available records indicate that non-native and invasive plant species are present within the wider urban environment surrounding the Proposed Development site. However, no records were identified within the footprint of the Proposed Development site itself, and the desktop review does not indicate the presence of established populations within or immediately adjacent to the site.

6.2.4.2 Field Survey Results

No invasive species listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) were recorded within the site during field survey.

Vegetation within the site was confined to small areas of recolonising bare ground and was dominated by Butterfly-bush (*Buddleja davidii*) and willowherbs (*Epilobium* spp.) (both Abundant), with frequent bramble (*Rubus fruticosus* agg.), common nettle (*Urtica dioica*), herb-Robert (*Geranium robertianum*), smooth hawk's-beard (*Crepis capillaris*),

ragwort (*Senecio* spp.) and ivy (*Hedera helix*). Goat willow (*Salix caprea*) and ribwort plantain (*Plantago lanceolata*) were recorded occasionally, while common sow-thistle (*Sonchus oleraceus*) and dandelion (*Taraxacum* spp.) were recorded rarely. None of the plant species recorded are listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), and the vegetation present is typical of a disturbed urban brownfield environment and does not represent a constraint in the context of the Proposed Development.

6.2.5 Non-volant Mammals

6.2.5.1 Desktop Study

A review of records available from the National Biodiversity Data Centre (NBDC) and information obtained from the NPWS following a data request submitted in April 2026 was undertaken to identify records of protected and notable mammal species within hectad O13.

Records of several protected and notable mammal species were identified within the wider hectad O13, including otter (*Lutra lutra*), badger (*Meles meles*), European hedgehog (*Erinaceus europaeus*), Irish stoat (*Mustela erminea hibernica*) and red squirrel (*Sciurus vulgaris*). Otter is listed on Annex II and Annex IV of the Habitats Directive and is known to occur along the River Liffey and associated watercourses within the wider area.

The available records indicate that protected mammal species are present within the wider landscape surrounding the Proposed Development site. However, the site is located within a highly urbanised environment comprising predominantly buildings and artificial surfaces and provides little or no suitable habitat for most terrestrial mammal species. No records were identified within the footprint of the Proposed Development site itself. Although the Proposed Development site does not contain habitat suitable for otter (*Lutra lutra*), an indirect impact pathway exists via the existing surface water drainage network to the River Liffey, where the species is known to occur. In the absence of appropriate mitigation, construction activities have the potential to adversely affect downstream water quality through the accidental release of sediment or contaminants. Potential effects on downstream aquatic habitats utilised by otter have therefore been considered within the hydrological impact assessment, with appropriate mitigation measures incorporated to protect water quality.

No viable impact pathways were identified for badger (*Meles meles*), European hedgehog (*Erinaceus europaeus*), Irish stoat (*Mustela erminea hibernica*) or red squirrel (*Sciurus vulgaris*), as the Proposed Development site contains no suitable foraging, breeding or resting habitat, is highly fragmented by existing urban development and road infrastructure, and lacks ecological connectivity with suitable habitats within the wider landscape..

6.2.5.2 Field Survey Results

No evidence of protected terrestrial mammals was recorded during the site walkover survey. The site is dominated by artificial surfaces and buildings, with limited areas of recolonising bare ground, and therefore offers negligible suitability for foraging, commuting or sheltering mammals such as badger (*Meles meles*), otter (*Lutra lutra*) or European hedgehog (*Erinaceus europaeus*). Potential indirect effects on downstream aquatic habitats utilised by otter via the existing urban drainage network and downstream receiving environment are considered separately within the hydrological assessment and accompanying NIS, where applicable.

6.2.6 Bats

6.2.6.1 Desktop Study

Bat Habitat Suitability Index (BHSI)

A review of the NBDC's Bat Habitat Suitability Index (BHSI) dataset available online determined that for the area encompassed within the Proposed Development site, and the lands extending away from it, the assigned BHSI rating for 'all bats' is 18.33 out of 100, based on the analysis of the habitat and landscape associations of Irish bats compiled in Lundy et al. (2011). The maximum rating given for any individual species is 37, with a minimum rating of 0 (see Table 6-2).

On the basis of the BHSI ratings assigned for all bats and for individual species, the Proposed Development site and surrounding lands are considered to be of low overall value for bats.

Table 6-2: NBDC Bat Habitat Suitability Value Ratings for Hectad O13.

Bats Species	Bat Habitat Suitability Index Value
All bats	18.33
Leisler's bat (<i>N. leisleri</i>)	37
Soprano pipistrelle (<i>P. pygmaeus</i>)	33
Common pipistrelle (<i>P. pipistrellus</i>)	31
Brown long-eared bat (<i>P. auratus</i>)	23
Whiskered bat (<i>M. mystacinus</i>)	13
Daubenton's bat (<i>M. daubentonii</i>)	11
Nathusius' pipistrelle (<i>P. nathusii</i>)	10
Natterer's bat (<i>M. nattereri</i>)	7
Lesser horseshoe bat (<i>R. hipposideros</i>)	0

Bat Conservation Ireland dataset, NPWS Database & NBDC database

A desk-based review of available bat records was undertaken using data from the NBDC, Bat Conservation Ireland (BCI), and the NPWS, relating to the Proposed Development site and the surrounding area.

The study area lies within hectad O13. Records confirm the presence of a range of bat species within the wider landscape, including common and widespread species such as common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and Leisler's bat (*Nyctalus leisleri*). Other species including brown long-eared bat (*Plecotus auritus*), whiskered bat (*Myotis mystacinus*), and Daubenton's bat (*Myotis daubentonii*) have also been recorded within the wider area.

These records are typical of the Dublin urban environment, where bat activity is generally associated with linear features such as river corridors, mature trees, and areas of semi-natural habitat. In this context, the River Liffey, located approximately 300 m north of the Proposed Development site, represents the most suitable habitat feature in the local landscape for commuting and foraging bats.

No records of bat roosts are associated with the Proposed Development site itself. Furthermore, no records of lesser horseshoe bat (*Rhinolophus hipposideros*) occur within the study area, which is consistent with the species' known distribution being largely restricted to the west and south of Ireland.

Overall, the desk study indicates that while a range of bat species are present within the wider area, the highly urbanised nature of the Proposed Development site, combined with the absence of suitable habitat features, limits its suitability for roosting, foraging, or commuting bats

6.2.7 Field Survey Results

6.2.7.1 Roost and Habitat Suitability Survey (Daytime)

A Preliminary Roost Assessment (PRA) was undertaken on all buildings within the Proposed Development site. The assessment comprised a detailed visual inspection of all accessible external elevations and accessible internal areas, with reference to features known to support roosting bats, including roof coverings, soffits, fascias, wall crevices, structural joints and other building defects. The survey also considered the suitability of the surrounding habitat for foraging and commuting bats. Representative photographs of Buildings B1–B3 are provided in **Appendix 2** to support the findings of the Preliminary Roost Assessment.

Internal roof spaces were inspected where access was available. Where roof voids could not be safely accessed due to the construction of the buildings or health and safety constraints, the assessment relied upon external visual inspection of the building fabric together with inspection of accessible internal areas for evidence of access into enclosed roof spaces.

No evidence of bats, including droppings, feeding remains, staining or carcasses, was identified during the survey.

Three buildings were assessed within the site (B1–B3).



Figure 6-6: Preliminary Roost Assessment of Buildings within the Proposed Development Site.

Building B1 (shed structure)

Building B1 comprised a single-storey timber-framed shed clad externally with corrugated metal sheeting beneath a pitched corrugated metal roof. The structure exhibited a high degree of weathering and localised deterioration, with sections of warped timber cladding and small gaps present around the eaves and wall junctions.

Although numerous defects were present within the external fabric, these primarily provided access into the open internal space of the shed rather than enclosed roosting features. The interior was open to the underside of the roof covering, which comprised exposed corrugated sheeting without an enclosed roof void or crevices capable of supporting roosting bats.

No lifted roofing sheets, enclosed cavities or suitable crevice features were identified during the inspection, and no evidence of bat use was recorded.

Accordingly, Building B1 is considered to provide Negligible bat roost potential.

Building B2 (office building) Building B2 comprises a two-storey office building of masonry construction, with rendered external walls and a pitched, tiled roof. One small, localised area of slightly displaced roof tiles was identified and recorded during the Preliminary Roost Assessment (refer to Figure 6-6 and **Appendix 2; Plate 8**). The features were visually inspected from an elevated vantage point within the adjacent Building B3. Although direct access onto the roof surface was not available, the elevated view allowed the displaced tiles to be examined sufficiently to determine that they did not form openings into suitable enclosed crevices capable of supporting roosting bats.

Internally, the building has a vaulted roof, with the internal roof construction visible from accessible areas of the building. There is no enclosed loft space or roof void associated with the building, and no cavities or other Potential

Roost Features (PRFs) suitable for roosting bats were identified. The building fabric is otherwise well-sealed, with limited opportunities for bat ingress. No evidence of bat usage was recorded during the survey.

Although minor displacement of roof tiles was recorded, the features did not provide access to a suitable enclosed roosting space. Taking account of the detailed visual inspection from the elevated vantage point, the visible internal roof construction, and the absence of evidence of bat use, Building B2 is assessed as having negligible bat roost potential.

Building B3 (warehouse structure)

Building B3 comprises a larger warehouse-type building of masonry construction with a flat roof. The internal roof structure is exposed and the building does not contain an enclosed loft space or roof void. The internal environment is open and exposed, with no enclosed roof void or compartmentalisation.

Multiple access points are present, including broken and missing windowpanes; however, these provide access only to the main internal space, which lacks suitable roosting features such as crevices, voids, or stable microclimatic conditions. The visible roof structure and accessible internal building fabric were inspected, with no enclosed Potential Roost Features (PRFs) identified. The building fabric is relatively simple, with limited structural complexity and few features of potential suitability for bats.

Evidence of bird usage (e.g. droppings) was recorded internally; however, no evidence of bat usage (e.g. droppings, staining, feeding remains) was identified.

On this basis, Building B3 is assessed as having negligible bat roost potential.

Summary

Overall, the Proposed Development site is dominated by artificial surfaces and buildings, with only small, fragmented areas of recolonising bare ground present. The site lacks linear features such as treelines, hedgerows or watercourses and therefore provides negligible suitability for commuting and foraging bats.

All buildings assessed (B1–B3) were found to lack suitable Potential Roost Features (PRFs), with no evidence of current or historical bat use recorded during the survey. Where openings or defects were present, including deteriorated cladding, broken glazing and minor displacement of roof tiles, these did not provide access to enclosed crevices, loft spaces or roof voids suitable for roosting bats. The internal roof construction of each building was visible from accessible internal areas, confirming that the buildings did not contain enclosed loft spaces or roof voids.

Building B2's small localised area of displaced roof tiles were inspected visually from an elevated vantage point within the adjacent Building B3. Although the roof surface itself was not physically accessed, the elevated inspection, together with the visible internal roof construction, confirmed that the features did not provide access to a suitable enclosed roosting space.

In the context of the wider urban environment and taking account of the low Bat Habitat Suitability Index (BHSI) value for the area, the site is considered to be of negligible suitability for roosting, foraging and commuting bats.

6.2.8 Birds

6.2.8.1 Desktop Study

A review of records available from the National Biodiversity Data Centre (NBDC) and information obtained from the NPWS following a data request submitted in April 2026 was undertaken to identify records of protected and notable bird species within hectad O13. The desktop study records are provided in **Appendix 1**.

Records of numerous protected and notable bird species were identified within the wider hectad O13. Given the scale of the search area and the number of records returned, only species considered potentially relevant to the ecological assessment of the Proposed Development are discussed further. Species were selected based on their conservation status, protection under Irish and European wildlife legislation, the availability of suitable habitat within or adjacent to the Proposed Development site, and their potential to utilise the surrounding urban environment, the River Liffey corridor or nearby designated sites. Species considered of particular relevance include peregrine falcon (*Falco peregrinus*), kingfisher (*Alcedo atthis*), grey heron (*Ardea cinerea*), herring gull (*Larus argentatus*), common gull (*Larus canus*) and black-headed gull (*Chroicocephalus ridibundus*). The NPWS also identified one occupied peregrine falcon nest site within hectad O13 during the 2017 National Peregrine Survey.

The available records indicate that a diverse assemblage of protected and notable bird species occurs within the wider hectad O13. However, many of these species are associated with the River Liffey corridor, Dublin Bay and other aquatic or coastal habitats that are not represented within the predominantly urban Proposed Development site. Consequently, the desktop review informed the scope of the field surveys and the ecological impact assessment by identifying those species with the greatest potential to utilise the Proposed Development site or its immediate surroundings.

6.2.8.2 Field Survey Results

The ornithological baseline for the Proposed Development is based on ecological walkover surveys undertaken by MWP in March and July 2026. In addition, ornithological survey information presented within the Bird Report: St. James's Gate De-carbonisation and Water Recovery Project (Malone O'Regan Environmental (MOR), 2024), prepared on behalf of Diageo Ireland, was reviewed to provide supporting ecological context. These surveys were undertaken by MOR between December 2023 and June 2024 for the wider St. James's Gate De-carbonisation and Water Recovery Project and covered buildings and infrastructure within the wider Diageo landholding. The MOR surveys did not include the Proposed Development site and have therefore been used only as contextual information regarding bird usage within the wider St. James's Gate area.

The MOR (2024) winter bird suitability assessment undertaken in December 2023, concluded that the survey area associated with the wider St. James's Gate De-carbonisation and Water Recovery Project provided limited habitat for important assemblages of overwintering birds. While gull species were observed perching on the rooftops, these individuals were also recorded flying throughout the wider urban area and were not considered to be dependent on those buildings. Furthermore, no habitats suitable for overwintering geese, swans or wader species were identified, and it was concluded that further winter bird surveys were not required (MOR, 2024).

Breeding gull rooftop surveys undertaken by MOR between March and June 2024 on buildings within the wider St James's Gate complex, outside the Proposed Development site, confirm that buildings within the wider St. James's Gate complex support breeding urban gulls (MOR, 2024). Confirmed breeding records included one pair of herring gull nesting within a peregrine falcon nest box on the Flaking Plant, three pairs of lesser black-backed gull nesting on the Old Keg Plant rooftop, and two pairs of herring gull nesting on fermentation tanks (MOR, 2024). Additional breeding gulls were recorded also within the same breeding gull rooftop survey within St James's Gate complex, including one breeding pair of herring gull on a nearby flat roof, eleven breeding herring gull pairs on the New Keg Plant located outside the application boundary, and one breeding pair occupying a peregrine falcon nest box approximately 150 m south of the site (MOR, 2024). These survey results have been used solely to provide contextual information on breeding bird activity within the wider St. James's Gate complex and do not represent records from the Proposed Development site itself.

During the March 2026 ecological walkover survey, no active bird nests were observed within the Proposed Development site. The recolonising bare ground vegetation offers minor foraging opportunities; while the absence of trees, hedgerows or other structured vegetation limits the site's suitability for most bird species. The existing buildings

including B3 which remains accessible to birds through broken window openings, have the potential to support building-nesting species such as swift (*Apus apus*) and rock dove (*Columba livia*) and evidence of previous bird use in the form of droppings was recorded within Building B3. However, no evidence of active nesting by these or other bird species was recorded during the March and July 2026 surveys. In combination with the contextual breeding gull survey information from the wider St James's Gate complex, these findings indicate that while breeding urban gulls, occur within the surrounding area, the Proposed Development site itself supports only limited nesting opportunities and no confirmed breeding activity was identified during the March and July 2026 walkover surveys.

6.2.9 Amphibians, Reptiles and Invertebrates

6.2.9.1 Desktop Study

A review of records available from the National Biodiversity Data Centre (NBDC) and information obtained from the NPWS following a data request submitted in April 2026 was undertaken to identify records of amphibian, reptile and notable invertebrate species within hectad O13.

Records of common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*) and common lizard (*Zootoca vivipara*) were identified within the wider hectad O13. These species are typically associated with freshwater habitats, grassland, scrub and other semi-natural habitats. No notable invertebrate records considered relevant to the Proposed Development site were identified during the desktop review.

The Proposed Development site comprises a highly urbanised environment dominated by buildings and artificial surfaces and does not provide suitable habitat for amphibians, reptiles or notable invertebrate species. The desktop review was used to inform the assessment of these faunal groups within the wider study area.

6.2.9.2 Field Survey Results

No amphibians, reptiles or notable invertebrates were recorded during the field survey. Given the highly urbanised nature of the site and the absence of suitable habitat features, including waterbodies, refugia, species-rich vegetation or other semi-natural habitats, the site is considered to have negligible suitability for these faunal groups.

7. Identification and Evaluation of Important Ecological Features

The habitats and associated flora, fauna and other ecological features identified in Section 6 have been evaluated based on their local, national and international conservation importance, in accordance with the criteria outlined in Section 4.6.

Following this evaluation, ecological features with the potential to be significantly affected by the Proposed Development have been identified as Important Ecological Features (IEFs).

The evaluation of designated sites as ecological receptors is provided in Section 6.1.4.

7.1 Habitats

The Proposed Development site comprises predominantly artificial surfaces (BL3) associated with buildings and hardstanding, together with small areas of recolonising bare ground (ED3).

No habitats corresponding to Annex I of the Habitats Directive were identified within the site. Furthermore, the site does not contain any semi-natural habitats such as woodland, scrub, hedgerows, treelines, grassland or watercourses.

The habitats present are typical of a highly urbanised environment and are of low intrinsic ecological value, providing limited biodiversity function and negligible ecological connectivity to the wider landscape.

Table 7-1: Evaluation of Habitats within the Proposed Development Site

Habitat Type	Extent/Location within study area	Ecological Value Relative to the Works Site (NRA, 2009)	Approx Area of Loss (Ha/Km)	Important Ecological Feature? (Y/N)	Rationale
Artificial surfaces (BL3)	Dominant across the site	Local importance (lower value)	N/A the habitat type will remain the same.	No	Buildings and hardstanding dominate the site. While of low ecological value, structures provide limited opportunities for nesting by common urban bird species.
Recolonising bare ground (ED3)	Small patches scattered across the site.	Local importance (lower value)	100% of this habitat area will be lost to the development	No	Small fragmented areas of early successional vegetation occurring on disturbed urban ground. The habitat provides limited ecological function and minor foraging opportunities for common species but is common and widespread within the urban environment.

7.2 Rare and Protected Flora

There are no records of species protected under the Flora (Protection) Order 2022 within hectad O13, and no rare or protected plant species were recorded during the field survey.

Although records of notable plant species, including Opposite-leaved Pondweed (*Groenlandia densa*), Irish Whitebeam (*Sorbus hibernica*) and Autumn Lady's-tresses (*Spiranthes spiralis*), were identified through the NPWS data request, these records relate to the wider hectad O13 and are not associated with the Proposed Development site. Furthermore, the habitats present within the site comprise predominantly artificial surfaces and recolonising bare ground and are not considered suitable to support these species.

Rare and protected flora are therefore not considered to represent Important Ecological Features (IEFs) within the context of the Proposed Development and are not considered further in this assessment.

7.3 Fauna

Table 7-2 presents an evaluation of the ecological value and importance of the faunal groups identified as occurring, or having the potential to occur, within the receiving environment of the Proposed Development, together with the rationale for their inclusion or exclusion as Important Ecological Features (IEFs).

Table 7-2: Evaluation of Faunal Species in Relation to the Proposed Works

Species	Legislative protection	Ecological value relative to works site (NRA, 2009)	Important Ecological Feature?	Rationale
Otter (<i>Lutra lutra</i>)	Annex II & IV Habitats Directive; Wildlife Acts 1976–2021	Local Importance (Higher Value)	Yes	Although no suitable otter habitat occurs within or adjacent to the Proposed Development site and no evidence of otter activity was recorded during survey, otter is known to occur within the wider River Liffey catchment and is protected under Annex II and Annex IV of the Habitats Directive. An indirect hydrological pathway exists between the Proposed Development and the River Liffey via the existing drainage network. Consequently, otter has been retained as an IEF in order to assess potential indirect effects arising from deterioration in water quality.
Fish (including Atlantic salmon (<i>Salmo salar</i>), brown trout (<i>Salmo trutta</i>), European eel (<i>Anguilla anguilla</i>), flounder (<i>Platichthys flesus</i>) and other fish species associated with the River Liffey)	Species-specific legislative protection, including the Fisheries Acts 1959–2019 (where applicable)	Local Importance (Higher Value)	Yes	The Proposed Development site contains no aquatic habitat and no fish habitat occurs within or adjacent to the site. However, an indirect hydrological pathway exists to the River Liffey via the existing drainage network. Potential indirect effects on downstream aquatic habitats during construction have been considered through the assessment of water quality impacts. Fish are therefore retained as an IEF for the purposes of the Ecological Impact Assessment.
Waterbirds	Birds Directive; Wildlife Acts 1976–2021	Local Importance (Higher Value)	Yes	The Proposed Development site does not contain suitable habitat for significant populations of waterbirds and no waterbird habitat occurs within or adjacent to the site. However, an indirect hydrological pathway exists between the Proposed Development and the River Liffey via the existing drainage network. In the absence of mitigation, deterioration in water quality could affect aquatic habitats and prey resources utilised by waterbirds associated with the River Liffey corridor and downstream Dublin Bay. Waterbirds are therefore retained as an IEF for the purposes of assessing indirect effects associated with the water quality pathway.
Badger (<i>Meles meles</i>)	Wildlife Acts 1976–2021	Local Importance (Lower Value)	No	No evidence of badger activity was recorded during the field survey and the site does not provide suitable habitat for foraging, commuting or breeding badgers. While records occur within the wider hectad O13, badger is not considered an IEF within the context of the Proposed Development.

European Hedgehog (<i>Erinaceus europaeus</i>)	Wildlife Acts 1976–2021		Local Importance (Higher Value)	No	Records occur within the wider hectad O13; however, the site comprises predominantly buildings and artificial surfaces and provides negligible habitat suitability. Hedgehog is not considered an IEF.
Bats	Annex IV Habitats Directive; Wildlife Acts 1976–2021		Local Importance (Higher Value)	Yes	Bat records occur within the wider hectad O13 and all bat species are protected under Irish and European legislation. Although the site was assessed as having negligible suitability for roosting, foraging and commuting bats, temporary construction lighting could result in localised disturbance. However, the site does not contain important commuting or foraging features. No operational lighting impacts on bat commuting or foraging habitat are anticipated, as the Proposed Development is located within an established urban environment and will not introduce significant changes to existing lighting conditions. Bats are retained as an Important Ecological Feature due to their legal protection and for precautionary consideration within the assessment.
Birds (Not waterbirds)	Birds Wildlife Acts 1976–2021	Directive;	Local Importance (Higher Value)	Yes	Buildings within the site provide limited nesting opportunities for common urban bird species and evidence of bird usage was recorded during survey. All wild birds, their nests and eggs are protected under legislation and birds are therefore considered an IEF.
Amphibians and Reptiles	Wildlife Acts 1976–2021		Local Importance (Lower Value)	No	No suitable habitat for amphibians or reptiles occurs within the site and no evidence of these groups was recorded during survey. They are not considered IEFs within the context of the Proposed Development.

8. Do Nothing Scenario

The Proposed Development site comprises mainly existing artificial surfaces and recolonising bare ground.

If the Proposed Development does not proceed, the site will likely remain in its current condition as a disused, previously developed urban site.

In the absence of active management, recolonising bare ground vegetation may continue to establish and persist in localised areas; however, given the dominance of hardstanding and buildings, any ecological change is expected to be minimal.

The site is not considered to represent a significant ecological resource in its current state, and therefore the do-nothing scenario would not result in any meaningful ecological gain or loss.

9. Potential Impacts of the Proposed Development

This section outlines the potential ecological impacts that could arise during the construction, operation, and decommissioning phases of the Proposed Development.

Assessment of their significance, magnitude, and duration is presented separately in Section 10, where effects are evaluated for each identified Important Ecological Feature (IEF).

9.1 Construction Phase

The construction phase effects associated with the proposed development will/may comprise the following:

Construction Phase Effect	Source
Habitat loss/alteration	Demolition of existing buildings and structures (including Building B3), site clearance works, excavation and groundworks associated with construction of the substation compound, installation of underground cables, reconstruction of retaining walls, and removal of small areas of recolonising bare ground (ED3).
Indirect water quality effects	Demolition works, excavation, earthworks, material storage, and use of plant and machinery may generate sediment-laden runoff. Accidental spillages or leakages of fuels, oils, lubricants, concrete washings or other hazardous substances could enter the drainage network. A temporary hydrological connection will exist between elements of the Proposed Development (namely cabling works within the Diageo complex and the removal and replacement of the existing northern and eastern boundary retaining walls) and the River Liffey via Diageo's licensed drainage network and the SW-1 discharge point at Victoria Quay. In the absence of mitigation, deterioration in water quality could affect downstream aquatic habitats and ecological communities, fish species associated with the River Liffey, otter (<i>Lutra lutra</i>) and waterbirds utilising the River Liffey corridor and downstream Dublin Bay.
Direct species disturbance/displacement	Demolition works, excavation, construction activities, increased human presence, vehicle movements, noise and vibration, and temporary construction lighting. Potential disturbance to nesting birds associated with existing buildings, particularly where works occur during the breeding bird season (1 March to 31 August inclusive). Localised disturbance of bats and other nocturnal fauna may arise from temporary construction lighting.
Indirect species disturbance/displacement	Temporary loss or alteration of nesting habitat for common urban bird species associated with existing buildings. Potential disturbance of birds, bats and other urban fauna through increased activity levels, noise, vibration and lighting during the construction phase. Potential indirect effects on fish, otter and waterbirds associated with the River Liffey through deterioration of aquatic habitat quality or prey resources resulting from water quality impacts.

9.2 Operational Phase

Potential operational-phase ecological impacts include:

- No significant ecological impacts are predicted during the operational phase due to the highly urbanised nature of the site, the absence of ecologically important habitats and the limited operational activities associated with the Proposed Development.

9.3 Decommissioning Phase

Potential impacts during the decommissioning phase may include:

- Disturbance to, or loss of, nesting sites for birds associated with buildings during any future demolition or removal works.
- Temporary disturbance to local fauna due to construction-type activities (e.g. noise, human presence, and machinery use).

10. Assessment of Potentially Significant Effects

A significant ecological effect is one that undermines the conservation status of habitats or species, or the structure and function of ecosystems (CIEEM, 2018). The assessment below considers the potential effects of the Proposed Development on the identified Important Ecological Features (IEFs) as listed in Table 10-1, with reference to the criteria set out in EPA (2022) and NRA (2009).

Effects are described for the construction, operational and decommissioning phases of the Proposed Development. Mitigation and management measures are presented in Section 12, and residual effects are summarised in Section 13.

10.1 Construction Phase

10.1.1 Potential Habitat Loss, Alteration and Fragmentation Impacts

The Proposed Development will result in the removal of existing buildings, hardstanding and small areas of recolonising bare ground (ED3) within the site footprint. These habitats are of low ecological value and are characteristic of a highly urbanised environment.

No Annex I habitats, watercourses, woodland, hedgerows, treelines or other habitats of elevated ecological importance occur within the site. The Proposed Development will not result in the loss or fragmentation of habitats of greater than Local Importance (Lower Value), nor will it affect ecological connectivity within the wider landscape.

Significance:

Unmitigated effects are assessed as **imperceptible to slight, permanent, negative at a local scale**. No significant habitat effects are predicted.

10.1.2 Potential Disturbance and Displacement of Fauna

Construction activities, including demolition, site clearance, vehicle movements, increased noise levels and general human presence, have the potential to result in temporary disturbance and displacement of fauna.

Construction activities including demolition, piling, excavation works, vehicle movements and the operation of plant and machinery will also generate temporary noise and vibration. The Proposed Development is located within a highly urbanised environment characterised by existing road traffic, commercial and industrial activity. No bat roosts, protected mammal resting sites or breeding bird territories were identified within the Proposed Development site during field surveys. While common urban bird species and ecological receptors associated with the River Liffey corridor may be exposed to temporary increases in noise levels, any effects would be localised, short-term and reversible. Given the mobility of these receptors, the urban nature of the receiving environment and the temporary duration of the works, construction noise and vibration are not predicted to result in significant ecological effects.

The principal faunal receptor associated with the site is nesting birds. During the March and July 2026 ecological walkover surveys, evidence of bird usage was recorded within the Proposed Development site, including bird droppings within Building B3 and observations of birds perching on existing buildings and structures. Building B3 remains accessible to birds through broken window openings and therefore provides some potential for use by common urban bird species. However, no active nests, inactive nests, nesting material, breeding behaviour or other evidence of breeding activity was identified during either survey, including the July 2026 survey which was undertaken within the breeding bird season.

Construction works undertaken during the breeding bird season (1 March to 31 August inclusive) therefore have the potential to disturb nesting birds should nesting occur between the time of the survey and the commencement of works. Demolition and site clearance works also have the potential to temporarily displace birds utilising the site and surrounding urban environment for perching, sheltering or foraging purposes.

The site was assessed as being of negligible suitability for roosting, commuting and foraging bats and no evidence of bat usage was recorded during the surveys. While temporary construction lighting may result in localised disturbance to bats and other nocturnal fauna, significant effects are not anticipated given the highly urbanised nature of the site and the absence of suitable bat habitat.

Significance:

Unmitigated effects on nesting birds are assessed as slight, temporary and negative at a local scale. Potential disturbance to birds utilising the site for perching or sheltering is also assessed as slight, temporary and negative at a local scale. Potential disturbance arising from construction noise and vibration is assessed as imperceptible to slight, temporary and negative at a local scale. Given the negligible suitability of the site for roosting, commuting and foraging bats, together with the absence of evidence of bat activity during surveys, potential disturbance effects on bats, including those associated with temporary construction lighting, are assessed as imperceptible, temporary and negative at a local scale. No effects of greater than local importance are predicted.

10.1.3 Potential Species Mortality or Injury

There is potential for direct mortality or injury to nesting birds, eggs or dependent young should demolition or site clearance works occur during the bird breeding season and active nests be present.

No significant risk of mortality or injury to bats is predicted due to the absence of suitable roosting features and the negligible bat roost potential of Buildings B1–B3.

No significant mortality risk is predicted for other protected mammal species due to the absence of suitable habitat within the site.

Significance:

Unmitigated effects are assessed as slight, temporary and negative at a local scale in relation to nesting birds only. Potential effects on bats are assessed as imperceptible, temporary and negative due to the negligible suitability of the site for roosting bats and the absence of evidence of bat activity. Effects on other faunal groups are assessed as imperceptible.

10.1.4 Potential Surface Water Runoff and Pollution Risk

Construction activities, including demolition works, site clearance, minor excavation works, material storage, vehicle movements and general construction activities, have the potential to generate surface water runoff containing suspended sediments or contaminants.

Potential sources of contamination include fuels, oils, concrete washings, cementitious materials, accidental spillages and leaks from plant and machinery. Temporary welfare facilities, where required, may also present a potential pollution risk if not appropriately managed.

Surface water management associated with the Proposed Development has been incorporated into the design. During construction, runoff generated within the substation site will be directed to the existing public sewer network in accordance with the approved drainage strategy. A temporary hydrological pathway may exist during demolition of the retaining walls and during installation of the underground cable within Diageo's IEL landholding, where the works interface with Diageo's existing drainage infrastructure. However, construction-phase runoff will be managed in accordance with the approved drainage strategy established for the permitted Diageo decarbonisation project and, where required, existing surface water drainage connections will be isolated and stormwater discharges redirected to the public sewer network for treatment at Ringsend WWTP, thereby minimising the potential for contaminated runoff to enter the River Liffey via the SW-1 discharge point.

Notwithstanding the embedded drainage controls and surface water management measures incorporated into the Proposed Development, accidental pollution incidents involving fuels, oils, concrete washings, sediment-laden runoff or other contaminants could occur during construction in the absence of appropriate environmental controls. Such incidents could result in localised deterioration in water quality within the receiving drainage network and, via indirect pathways, the River Liffey..

Significance:

In the absence of mitigation, the effects have the potential to be assessed as slight, short-term and negative at a local scale. Given the highly urbanised nature of the site, the absence of direct surface water features, the limited scale of the works and the indirect nature of the hydrological pathway, the potential for significant effects on aquatic habitats, fish, otter and waterbirds is considered low.

10.1.5 Potential Dust Effects

Construction activities, including demolition, excavation, piling, stockpiling of materials, loading and unloading activities, and vehicle movements on exposed surfaces, have the potential to generate dust and particulate matter. In the absence of mitigation, dust may be deposited on nearby habitats and vegetation, while dust and fine sediments may also enter the existing drainage network through surface runoff following rainfall events.

Given the highly urbanised nature of the Proposed Development site, the predominance of buildings and artificial surfaces within and adjacent to the site, and the absence of sensitive terrestrial habitats, significant direct ecological effects arising from dust deposition are not anticipated. The accompanying PECR Air Quality assessment considered construction dust effects in accordance with the Institute of Air Quality Management (IAQM) Guidance on the Assessment of Dust from Demolition and Construction (2024). The assessment identified no designated ecological sites or sensitive ecological habitats within 50 m of dust-generating activities and classified the sensitivity of ecological receptors as Low. The resulting ecological dust risk was assessed as Low for demolition and track-out activities and Negligible for earthworks and construction activities (refer to PECR Section 8.2.1.1, Tables 8-7 and 8-8). Accordingly, significant direct ecological effects arising from construction dust are not anticipated. However, dust and fine sediments have the potential to contribute to a deterioration in water quality where deposited material enters the drainage network and is mobilised by rainfall. This potential pathway is considered within Section 10.1.4 Potential Surface Water Runoff and Pollution Risk and is not considered further as a separate ecological effect.

Significance:

In the absence of mitigation, direct dust-related ecological effects are assessed as imperceptible, short-term and negative at a local scale. Potential indirect effects associated with mobilisation of deposited dust to the drainage network are assessed within the water quality impact assessment.

10.1.6 Potential Spread of Invasive Alien Plant Species

Butterfly-bush (*Buddleja davidii*) was the only invasive alien plant species identified within the Proposed Development site.

Construction activities may facilitate the spread of invasive species through the movement of soils, vegetation, construction materials, machinery and vehicles.

Without appropriate controls there is potential for invasive species material to be spread within the site or inadvertently transported off-site.

Significance:

In the absence of mitigation, effects are assessed as slight, short-term and negative at a local scale.

Table 10-1: Summary of Potential Construction Phase Effects on Important Ecological Features (IEFs)

IEF	Ecological Value Relative to the Study Area (NRA, 2009)	Unmitigated Impacts	Significance of Unmitigated Impacts (EPA, 2022)
Birds	Local Importance (Higher Value)	Demolition and construction activities and temporary construction lighting have the potential to result in temporary disturbance and displacement of nesting birds. There is also potential for mortality or injury to nesting birds, eggs or dependent young should demolition or site clearance works occur during the bird breeding season and active nests be present.	Potential disturbance/displacement effects on birds assessed as Short-term, Slight, Negative effects. Potential mortality/injury effects on birds assessed as Short-term, Slight, Negative effects .
Waterbirds	Local Importance (Higher Value)	In the absence of mitigation, indirect effects on waterbirds associated with the River Liffey corridor and downstream Dublin Bay could arise through deterioration in water quality and associated impacts on aquatic habitats and prey resources.	Potential indirect effects on waterbirds assessed as Short-term, Slight, Negative effects .
Aquatic ecological receptors (fish and otter)	Local Importance (Higher Value)	In the absence of mitigation, accidental pollution events, sediment-laden runoff, fuels, oils, concrete washings or other contaminants could enter the drainage network and result in a localised deterioration in water quality within the River Liffey. Potential indirect effects could occur on aquatic habitats and ecological communities, fish species associated with the River Liffey and otter utilising the River Liffey corridor and downstream Dublin Bay.	Potential indirect effects on Aquatic ecological receptors (fish and otter) assessed Short-term, Slight, Negative effects .
Bats	Local Importance (Higher Value)	Demolition and construction activities, including temporary construction lighting, have the potential to result in disturbance. No suitable roosting features were identified within Buildings B1–B3 and the site was assessed as being of negligible suitability for roosting, foraging and commuting bats.	Potential effects on bats assessed as Short-term, Imperceptible, Not Significant, Negative effects .

10.2 Operational Phase

10.2.1 Potential Habitat Loss, Alteration and Fragmentation Impacts

Following construction, the site will remain dominated by artificial surfaces and built infrastructure.

No additional habitat loss, habitat fragmentation or deterioration of ecological connectivity is anticipated during operation.

Significance:

Operational effects are assessed as imperceptible to not significant, neutral and long-term at a local scale.

10.2.2 Potential Disturbance and Displacement of Fauna

The operational phase is not predicted to result in significant ecological effects.

The site is located within an existing urban environment and will remain dominated by built infrastructure. Operational activities associated with the substation are expected to be limited and infrequent.

No significant disturbance to nesting birds, bats or other ecological receptors is predicted.

Significance:

Operational effects are assessed as imperceptible to not significant, neutral and long-term at a local scale.

10.2.3 Potential Species Mortality or Injury

There is no anticipated pathway through which the operational phase would result in mortality or injury to protected species.

Significance:

Operational effects are assessed as imperceptible and not significant.

10.2.4 Potential Surface Water Runoff and Pollution Risk

Following completion of the Proposed Development, no routine activities are anticipated that would generate significant volumes of contaminated runoff or result in deterioration of water quality.

The operational phase is therefore not expected to adversely affect downstream aquatic habitats, species or associated ecological receptors.

Significance:

Operational effects are assessed as imperceptible to not significant, neutral and long-term at a local scale.

10.2.5 Potential Spread of Invasive Alien Plant Species

There is limited potential for the spread of invasive alien plant species during the operational phase.

Significance:

Operational effects are assessed as imperceptible and not significant.

Table 10-2: Summary of Potential Operational Phase Effects on Important Ecological Features (IEFs)

IEF	Ecological Value Relative to the Study Area (NRA, 2009)	Unmitigated Impacts	Significance of Unmitigated Impacts (EPA, 2022)
Birds	Local Importance (Higher Value)	No significant operational impacts are predicted. The operational phase will not result in substantial increases in noise, vibration, lighting or human activity above existing baseline conditions.	Potential operational effects on birds assessed as Imperceptible, Not Significant, Neutral effects.
Bats	Local Importance (Higher Value)	No significant operational impacts are predicted.	Potential operational effects on bats assessed as Imperceptible, Not Significant, Neutral effects.

10.3 Decommissioning Phase

The timing and methodology of decommissioning are currently unknown; however, any future decommissioning works would be expected to result in effects broadly similar to those identified for the construction phase.

10.3.1 Potential Habitat Loss, Alteration and Fragmentation Impacts

Decommissioning activities may result in temporary habitat disturbance associated with the removal of infrastructure and associated works. Given the highly urbanised nature of the site and the low ecological value of habitats present, significant effects are not anticipated.

Significance:

Potential effects are assessed as Imperceptible to Slight, Temporary, Negative effects at a local scale.

10.3.2 Potential Disturbance and Displacement of Fauna

Noise, vibration, vehicle movements and increased human activity associated with decommissioning works may result in temporary disturbance and displacement of birds and other mobile fauna.

Significance:

Potential effects are assessed as Slight, Temporary, Negative effects at a local scale.

10.3.3 Potential Species Mortality or Injury

There is potential for impacts on nesting birds should decommissioning works coincide with the bird breeding season and active nests be present.

Significance:

Potential effects are assessed as Slight, Temporary, Negative effects at a local scale.

10.3.4 Potential Surface Water Runoff and Pollution Risk

Decommissioning activities may generate surface water runoff containing sediments or contaminants. In the absence of appropriate controls, there is potential for indirect effects on downstream ecological receptors through the drainage network.

Significance:

Potential effects are assessed as Slight, Temporary, Negative effects at a local scale.

10.3.5 Potential Spread of Invasive Alien Plant Species

Movement of machinery, materials and soils during decommissioning works could facilitate the spread of invasive alien plant species where present.

Significance:

Potential effects are assessed as Slight, Temporary, Negative effects at a local scale.

Table 10-3: Summary of Potential Decommissioning Phase Effects on Important Ecological Features (IEFs)

IEF	Ecological Value Relative to the Study Area (NRA, 2009)	Unmitigated Impacts	Significance of Unmitigated Impacts (EPA, 2022)
Birds	Local Importance (Higher Value)	Temporary disturbance/displacement and potential impacts to nesting birds during decommissioning works.	Potential effects on birds assessed as Short-term, Slight, Negative effects.
Bats	Local Importance (Higher Value)	Temporary disturbance and displacement associated with decommissioning works.	Potential effects on bats assessed as Imperceptible, Not Significant, Negative effects.

11. Cumulative Impacts

As well as singular effects, the potential for cumulative effects also needs to be considered. A cumulative effect arises from incremental changes caused by another past, present or reasonably foreseeable future actions together with the Proposed Development. According to EPA (2022), cumulative effects can be described as 'the addition of many minor or insignificant effects, including effects of other development, to create larger, more significant effects.

When in-combination impacts are assessed, it is necessary to identify the types of impacts that may ensue from the project under consideration and from other sources in the existing environment that cumulatively are likely to affect aspects of the structure and function of the relevant Natura 2000 sites (EC, 2001).

The EC (2001) guidelines on the provision of Article 6 of the Habitats' Directive state that the phrase 'in combination with other plans or projects' in Article 3(3) of the Habitats Directive refers to the cumulative effects due to plans or projects 'that are currently under consideration together with the effects of any existing or proposed projects or plans.' Relevant plans and projects have been identified below.

11.1 Plans

The Proposed Development has been considered in the context of relevant national, regional and local plans and programmes that may influence land use, infrastructure delivery, biodiversity protection and water quality management within the receiving environment. Relevant plans include:

- Dublin City Development Plan 2022–2028;

- National Planning Framework (NPF) – Project Ireland 2040⁴;
- National Development Plan (NDP) 2021–2030;
- Eastern and Midland Regional Spatial and Economic Strategy (RSES) 2019–2031;
- River Basin Management Plan (RBMP) 2022–2027⁵;
- Climate Action Plan 2024 and Climate Action Plan 2025⁶; and
- 4th National Biodiversity Action Plan 2023–2030⁷.

These plans support the sustainable development of strategic infrastructure, the regeneration and redevelopment of urban areas, the protection and enhancement of biodiversity, and the achievement of water quality and climate objectives. The Proposed Development is located within a highly urbanised brownfield environment and comprises the construction and operation of electricity infrastructure within an established urban setting.

The assessment has considered the potential for cumulative ecological effects to arise in combination with the above plans and programmes. Given the nature and scale of the Proposed Development, the limited ecological value of the site, the absence of designated sites or sensitive habitats within the development footprint, and the implementation of standard environmental protection measures, no significant cumulative ecological effects are predicted to arise in combination with these plans and programmes.

11.2 Permitted and Proposed Developments in the Locality

A review of Dublin City Council's and An Coimisiún Pleanála's online planning systems was undertaken to identify granted and ongoing planning applications within the vicinity of the Proposed Development site with potential for cumulative ecological effects.

The review identified a range of permitted and ongoing developments within the wider Dublin 8 and city centre area, comprising a mix of residential, commercial and infrastructure projects. These include large-scale strategic infrastructure developments associated with the BusConnects Core Bus Corridor schemes, as well as medium to large-scale residential developments, including Build-to-Rent and student accommodation schemes. A number of smaller-scale developments, including refurbishment works and change of use applications, were also identified, which are typical of an established urban environment.

Of particular relevance is the permitted Diageo St James's Gate Decarbonisation Project (Reg. Ref. WEB2472/24), which was subject to Stage 2 Appropriate Assessment and a NIS. This assessment identified potential pathways for effects associated with construction-phase drainage and surface water management and established specific mitigation measures in relation to drainage and water quality management.

The identified developments are characteristic of an intensively developed urban environment and contribute to cumulative development pressure within the receiving environment. In particular, the presence of large-scale infrastructure and redevelopment projects within the wider River Liffey catchment highlights the potential for in-

4 <https://www.npf.ie/> sets out the overarching spatial strategy for development and includes provisions for the delivery and upgrading of strategic infrastructure to support population and economic growth

5 <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/policy-information/river-basin-management-plan-2022-2027/>

6 <https://www.gov.ie/en/department-of-climate-energy-and-the-environment/publications/climate-action-plan-2025/> includes measures relating to energy infrastructure, emissions reduction and sustainable infrastructure delivery

7 <https://www.gov.ie/en/department-of-housing-local-government-and-heritage/publications/irelands-4th-national-biodiversity-action-plan-20232030/> includes objectives for biodiversity protection, habitat management and environmental compliance

combination effects, primarily in relation to construction activities and surface water management pathways to the River Liffey and downstream European sites.

However, having regard to the limited scale of the Proposed Development, the absence of surface water features within the site, and the implementation of standard construction-phase mitigation measures, the potential for significant cumulative ecological effects arising from interaction with other permitted or proposed developments is considered to be low.

No significant cumulative ecological effects are predicted.

All relevant planning applications identified during the search are listed in Appendix 1 of the accompanying PECR.

11.3 Existing Land-use and On-going Activities

The Proposed Development site is located within a highly urbanised area of Dublin City, within the wider St James's Gate / Thomas Street area. Land use within the immediate vicinity comprises commercial, industrial, institutional and residential uses typical of a dense city centre environment.

The Guinness Brewery complex (Diageo Ireland Unlimited Company) occupies a substantial landholding immediately north and east of the Proposed Development site and represents the dominant industrial land use in the surrounding area. The facility operates as a large-scale brewing and beverage production site and is regulated under an Environmental Protection Agency (EPA) Industrial Emissions Licence.

Additional surrounding land uses include healthcare facilities, commercial premises, residential buildings and associated urban infrastructure, together with an established road network and drainage system.

The receiving environment is therefore characterised by high levels of existing disturbance, including traffic, human activity, and ongoing construction and redevelopment.

In this context, the Proposed Development represents a minor addition within an already intensively developed urban landscape. While a shared pathway exists via the urban drainage network to the River Liffey and downstream European sites, the limited scale and nature of the Proposed Development means that no significant cumulative ecological effects are predicted to arise in combination with existing land-use activities.

11.4 EPA Licensed Facilities

A review of the Environmental Protection Agency (EPA) online licensing register was undertaken to identify EPA-licensed facilities within the vicinity of the Proposed Development site that could contribute to cumulative ecological effects.

All relevant EPA-licensed facilities identified during the search are listed in the Table 11-1 below.

Table 11-1: IEL/IPC Licensed Facilities Proximal to the Proposed Development Site

IEL/IPC Name	License Number	License Status Type	Type/Category	Distance from the Proposed Development Site
Diageo Ireland Unlimited Company	P0301-04	Licensed	IEL – Industry	Within the wider St James's Gate / Diageo complex

IEL/IPC Name	License Number	License Status Type	Type/Category	Distance from the Proposed Development Site
B.G. Flexible Packaging Limited	P0305-01	Licensed	IEL – Industry	1km south
Independent Newspapers Ltd	Not stated	Licensed	IEL – Industry	2.2km east

The Proposed Development is located in proximity to the wider St James's Gate/Diageo facility, which operates under an EPA Industrial Emissions Licence (IEL) (Licence Ref. No. P0301-04) (**Figure 11-1**). As described in Section 2.1.1, while the proposed substation is located outside the IEL boundary, a section of the associated underground grid connection (UGC) infrastructure is located within the licensed area.

The drainage arrangements associated with the Proposed Development are described in Section 5.2. In summary, surface water from the proposed substation site and the underground cable works along James's Street drains to the public combined sewer network and is conveyed to Ringsend Wastewater Treatment Plant (WwTP) for treatment prior to discharge to Dublin Bay. In contrast, a section of the proposed UGC infrastructure and works associated with the retaining boundary walls along the northern and eastern boundary of the substation site overlaps with the Diageo's IEL (P0301-04) landholding where surface water is discharged into the River Liffey via SW-1, an existing stormwater outfall in accordance with the IEL terms. This creates an indirect, temporary hydrological connection between the Proposed Development site and the River Liffey during demolition and reconstruction of the retaining walls and installation of the underground cable within the IEL landholding.

However, to remove any connection between the Proposed Development site and the River Liffey, surface water run-off from this element of the Proposed Development will be managed in accordance with the construction phase surface water management approach established for the adjacent and already permitted Diageo Decarbonisation Project. Within the NIS prepared by MOR Environmental (2024) as part of the successful planning application (DCC Planning Application Number: WEB 2472/24) for the Diageo Decarbonisation Project, the following project-specific measure was recommended for implementation during the project's construction phase:

'During demolition and construction activities, all stormwater discharges from the Site to the Liffey or public rain sewer will be re-directed to SE-1 for discharge into the public sewer for treatment at Ringsend WWTP. This will prevent any potentially contaminated water onsite discharging directly or indirectly into the receiving surface waterbody.'

By adopting this construction phase surface water management approach, all construction-phase runoff from this area of the Proposed Development will be conveyed to the public urban sewer network, rather than discharged via the Diageo site's licensed outfalls from SW-1 to the River Liffey.

Taking into account the above, no significant cumulative ecological effects are predicted to arise in combination with the ongoing operation of the EPA-licensed Diageo facility.

The remaining EPA-licensed facilities identified during the search are located outside the Proposed Development site and do not share infrastructure, drainage networks or other pathways through which cumulative ecological effects could arise. Accordingly, no interaction with these facilities is predicted.

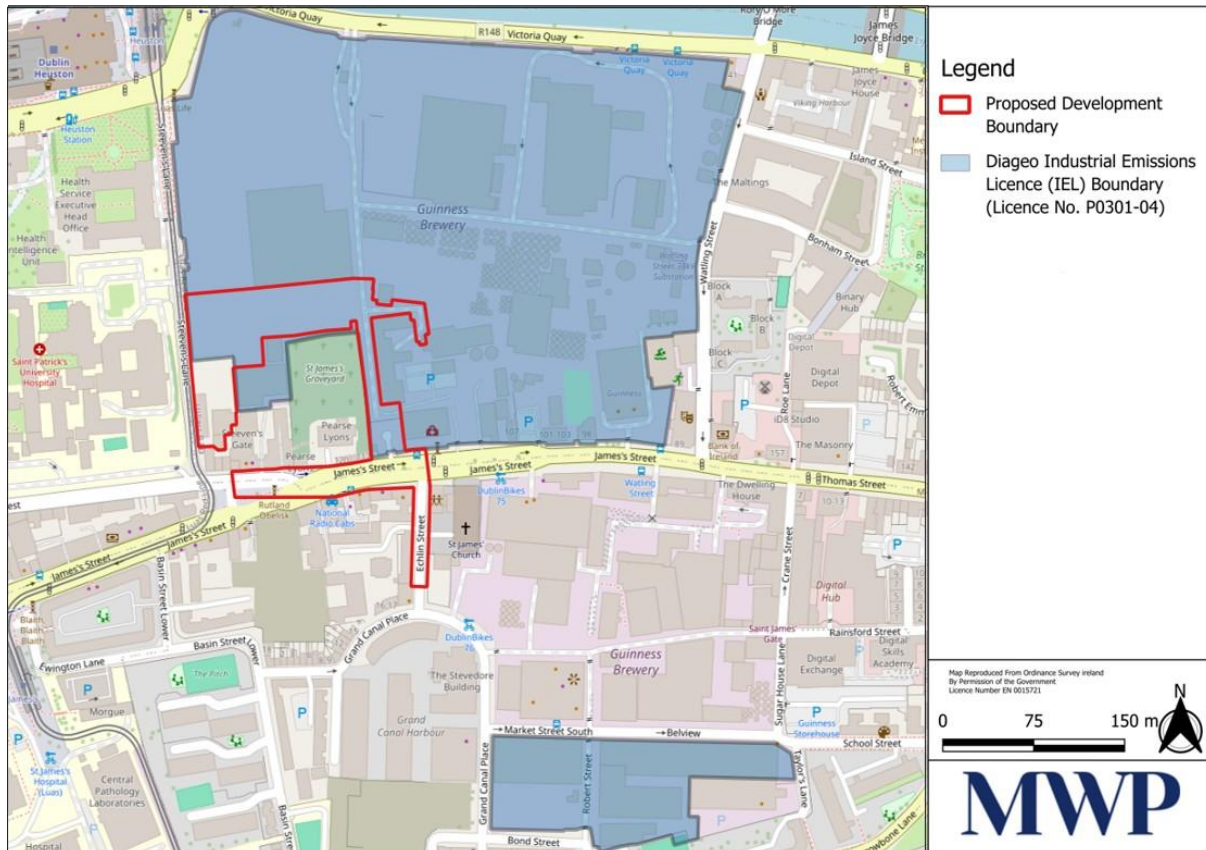


Figure 11-1: Proposed Development Site and Diageo IEL Boundary Interface

12. Mitigation

Mitigation measures are proposed to avoid and reduce potential ecological impacts identified in Section 9. These measures are based on best-practice construction management and standard environmental protection procedures and are consistent with the measures set out in the oCEMP, WFD, Dust Management Plan and Noise Management Plan.

The implementation of the mitigation measures outlined below will avoid or reduce potential ecological effects associated with the Proposed Development.

12.1 Mitigation by Design

Given the highly urbanised nature of the Proposed Development site, and the absence of habitats or features of more than low ecological value, there is limited scope for mitigation by design.

The Proposed Development has been designed within an existing brownfield site and does not result in the loss of semi-natural habitats, watercourses, or features of ecological connectivity. Surface water from the site will continue to be managed via the existing urban drainage/public sewer network in accordance with the approved drainage strategy, thereby avoiding the introduction of new direct pathways to receiving waters.

The Proposed Development also incorporates a number of embedded water protection measures that reduce the potential for impacts on aquatic ecological receptors. Surface water from the proposed substation site will be managed via the existing drainage/public sewer network in accordance with the approved drainage strategy. In addition, the

proposed transformers will be installed within appropriately designed bunded areas providing a minimum containment capacity of 110% of transformer oil volume. The bund outlet will incorporate a hydrocarbon-detecting pumped system which will automatically cease pumping in the event of hydrocarbon detection, thereby preventing the uncontrolled release of contaminated water and reducing the potential for adverse effects on downstream aquatic habitats and species. These measures form part of the project design and have been incorporated into the assessment of potential effects on fish, otter, waterbirds and the receiving water environment.

As such, no specific mitigation by design measures are required in relation to ecological receptors.

12.2 Mitigation by Management (Construction Phase)

All construction-phase mitigation measures will be implemented in accordance with relevant legislation, best-practice guidance and standard environmental protection procedures.

12.2.1 General Protection of Fauna

- Works involving demolition, modification of buildings, or clearance of vegetation will, where possible, be undertaken outside the bird nesting season (1 March to 31 August, inclusive).
- Where works are required during the nesting season, a suitably qualified ecologist will undertake a pre-works inspection of buildings and any vegetation within 24 to 48 hours prior to commencement.
- Where an active nest is identified, an appropriate exclusion zone will be established and maintained until the nest is no longer in use.
- If demolition has not commenced prior to the subsequent breeding bird season, appropriate bird-proofing measures will be implemented under the supervision of a suitably qualified ecologist to prevent birds establishing nests within buildings, openings, ledges or roof areas scheduled for demolition. Bird-proofing measures will be installed in advance of the nesting season and only where no active nests are present.
- Construction activities will be undertaken in accordance with the project Noise Management Plan. Given the highly urbanised nature of the receiving environment and the absence of identified noise-sensitive ecological receptors within the Proposed Development site, no specific ecological mitigation measures are required in relation to construction noise and vibration.

12.2.2 Surface Water and Pollution Prevention

- Existing drainage infrastructure within the active works areas, including gullies, manholes, drainage connections and underground pipework, will be identified prior to the commencement of works. Existing drainage assets affected by the works will be protected, isolated, temporarily sealed or otherwise managed, as appropriate, to prevent the ingress and uncontrolled discharge of silt-laden water or other contaminants to the drainage network.
- Temporary surface water management measures, including silt fencing and silt traps settlement tanks, bunding, filtration measures and other appropriate runoff control systems, will be implemented to contain and manage surface water runoff generated during demolition and construction activities.
- Construction-phase surface water runoff from within the proposed substation site will be retained within the development area, where practicable, utilising temporary barriers and the existing surrounding walls. Runoff will be directed through appropriate silt removal measures prior to controlled discharge to the existing combined drainage network and onward conveyance to Ringsend Wastewater Treatment Plant.

- During the demolition and reconstruction of the northern and eastern retaining walls and the underground cable installation works, any existing surface water drainage connections within the active work area will be temporarily isolated or shut down, where practicable and agreed with Diageo, to prevent sediment-laden runoff entering the drainage network. Any water requiring discharge from excavations or work areas will be appropriately treated prior to controlled discharge.
- It is proposed that for works within the Diageo Industrial Emissions Licence (IEL) landholding, construction-phase surface water runoff will be managed in accordance with the construction-phase surface water management approach established for the permitted Diageo Decarbonisation Project. During demolition and construction activities, all stormwater discharges from the site to the River Liffey or public surface water sewer will be re-directed to SE-1 for discharge to the public sewer network and subsequent treatment at Ringsend Wastewater Treatment Plant. This will prevent any potentially contaminated water on-site discharging directly or indirectly to the receiving surface water environment.
- Works within the public road corridor will utilise temporary drainage and runoff control measures to prevent the migration of sediment, debris or contaminated water to the existing drainage network. Excavations will be temporary and of limited duration, with any accumulated water managed through controlled pumping and discharge arrangements incorporating silt control measures, where required.
- Activities in proximity to drainage features will be avoided during periods of heavy rainfall where there is an increased risk of sediment mobilisation or pollution. Construction activities will be reduced or suspended where necessary to prevent adverse environmental effects.
- Standard construction best-practice measures will be implemented to prevent pollution of the surrounding environment, including the appropriate storage, handling and use of fuels, oils, chemicals and other potentially polluting substances, as set out in the oCEMP.
- Refuelling and maintenance of plant and equipment will be undertaken in designated areas with appropriate spill containment measures in place. All fuels, oils and chemicals will be stored in appropriately bunded and secure locations.
- Any accidental spillages will be contained and managed in accordance with site-specific environmental management procedures and emergency response protocols. Spill kits will be maintained on site and readily available in areas where potentially polluting substances are stored or used.
- Concrete works will be carefully managed to prevent the discharge of highly alkaline concrete wash water or cementitious materials to the drainage network. Concrete pours will not be undertaken during prolonged or heavy rainfall, concrete washout will only occur within designated lined and bunded washout areas, and any concrete-contaminated water will be contained, treated or removed off-site by an authorised contractor. Cement and cement-bound materials will be stored in covered or bunded areas away from drainage pathways.
- Dust generated during demolition, excavation and construction activities will be controlled through implementation of the Dust Management Plan, including water suppression, covering of stockpiles, wheel washing, road sweeping, sheeting of vehicles transporting friable materials and control of vehicle speeds. These measures will minimise the potential for dust and particulate matter to enter the drainage network.
- Temporary surface water control measures will be regularly inspected and maintained throughout the construction phase by the Environmental Manager to ensure their continued effectiveness. Monitoring and corrective actions will be implemented where necessary to prevent adverse effects on downstream receiving waters and associated aquatic ecological receptors, including fish species, otter and waterbirds associated with the River Liffey corridor and downstream Dublin Bay.

12.2.3 Invasive Alien Plant Species

In order to prevent the spread of invasive alien plant species (IAPS) during the construction phase, the following measures shall be implemented:

- Construction personnel shall be made aware of the presence and location of Butterfly-bush (*Buddleja davidii*) within the Proposed Development site prior to the commencement of works.
- All plant, machinery, vehicles and equipment brought onto the site shall be visually inspected and cleaned where necessary to ensure they are free from soil, vegetation and other organic debris which could facilitate the introduction or spread of invasive species.
- Any Butterfly-bush material removed during site clearance works shall be managed appropriately to prevent inadvertent spread within or beyond the site boundary.
- Any soils, vegetation or waste materials containing invasive plant material shall be handled separately from other site arisings and disposed of in accordance with relevant waste management requirements and applicable legislation.
- Should additional invasive alien plant species be identified during construction, works within the affected area shall cease and a suitably qualified ecologist shall be consulted to determine appropriate management measures.
- Areas affected by invasive species shall, where necessary, be clearly demarcated and protected from unnecessary disturbance until appropriate management measures have been implemented.
- Any accidental spread of invasive plant material arising during construction shall be addressed immediately using appropriate containment, removal and disposal measures.
- Following completion of works, disturbed ground shall be reinstated as soon as practicable in order to reduce opportunities for colonisation by invasive or undesirable species.
- All invasive species management measures shall be implemented in accordance with recognised best-practice guidance, including The Management of Noxious Weeds and Non-native Invasive Species on National Roads TII GE-ENV-01104 (TII,2020), where applicable.

12.3 Decommissioning Phase Mitigation Measures

Should decommissioning of the Proposed Development occur during the operational lifespan of the Proposed Development, the works shall be undertaken in accordance with relevant environmental legislation, guidance and best practice applicable at that time.

All the mitigation measures outlined for the construction phase (Section 12.2) shall be applied during decommissioning activities.

13. Residual Effects

Residual effects are those that remain following the implementation of the mitigation measures identified for the Proposed Development.

In the context of the Proposed Development, mitigation measures relate primarily to the protection of nesting birds, the minimisation of unnecessary lighting effects on bats and other nocturnal fauna, the prevention of pollution and deterioration in water quality, and the implementation of standard construction-phase environmental management measures.

Table 13-1 below summarises the predicted residual effects on the ecological receptors considered within this EclA.

Table 13-1: Summary of Predicted Residual Effects on Ecological Receptors

Ecological Receptor	Ecological Value Relative to the Study Area	Effect without Mitigation Construction Phase	Effect without Mitigation Operation Phase	Mitigation Measures	Residual Effect
Birds (Not waterbirds)	Local Importance (Higher Value)	Potential disturbance to, or loss of, active nests during demolition and site clearance works	No significant operational effects predicted	Demolition and vegetation clearance to be undertaken outside the bird breeding season where practicable; pre-construction nesting bird checks where required; implementation of standard environmental controls	Neutral / Imperceptible. No significant residual effects on nesting birds predicted.
Bats	Local Importance (Higher Value)	Potential localised disturbance arising from demolition and construction activities, including temporary construction lighting.	No significant operational effects predicted.	Construction lighting will be minimised and directed away from adjacent habitats. Operational lighting will be designed to minimise unnecessary light spill.	Neutral / Imperceptible. No significant residual effects on bats predicted.
Otter (<i>Lutra lutra</i>)	Local Importance (Higher Value)	Potential indirect effects arising from deterioration in water quality within the River Liffey due to accidental sediment release, contaminated runoff, fuels, oils, concrete washings or other pollutants entering the drainage network during construction activities.	No significant operational effects predicted.	Implementation of surface water management and pollution prevention measures, including containment of runoff, protection of drainage infrastructure, appropriate storage and handling of fuels and chemicals, spill response procedures, and implementation of the Construction Environmental Management Plan.	Neutral / Imperceptible. No significant residual effects on otter or habitats utilised by otter predicted.

Ecological Receptor	Ecological Value Relative to the Study Area	Effect without Mitigation Construction Phase	Effect without Mitigation Operation Phase	Mitigation Measures	Residual Effect
Fish (including Atlantic salmon (<i>Salmo salar</i>), brown trout (<i>Salmo trutta</i>), European eel (<i>Anguilla anguilla</i>), flounder (<i>Platichthys flesus</i>) and other fish species associated with the River Liffey)	Local Importance (Higher Value)	Potential indirect effects on aquatic habitats and fish species associated with the River Liffey arising from accidental pollution events, sediment-laden runoff or deterioration in water quality during construction activities.	No significant operational effects predicted.	Implementation of surface water management and pollution prevention measures, including sediment control measures, protection of drainage infrastructure, containment of potentially polluting substances and emergency spill response procedures.	Neutral / Imperceptible. No significant residual effects on fish species or aquatic habitats predicted.
Waterbirds	Local Importance (Higher Value)	Potential indirect effects on waterbirds associated with the River Liffey corridor and downstream Dublin Bay arising from deterioration in water quality and associated impacts on aquatic habitats and prey resources.	No significant operational effects predicted.	Implementation of surface water management and pollution prevention measures to prevent deterioration in water quality and protect downstream aquatic habitats and prey resources utilised by waterbirds.	Neutral / Imperceptible. No significant residual effects on waterbirds, their supporting habitats or prey resources predicted.

Following implementation of the mitigation measures outlined in Section 12, no significant residual ecological effects are predicted during the construction, operational or decommissioning phases of the Proposed Development.

No significant residual effects on Important Ecological Features (IEFs) are predicted. The implementation of the mitigation measures identified in Section 12 will ensure that any residual effects remain Neutral to Imperceptible and Not Significant.

Overall, no significant residual ecological effects are predicted at any geographical scale as a result of the Proposed Development, either alone or in-combination with other plans or projects.

14. Conclusion

This EcIA has considered the potential effects of the Proposed Development on habitats, flora and fauna within the receiving environment, in accordance with the guidelines set out by CIEEM (2018), EPA (2022) and NRA (2009).

The Proposed Development site comprises a highly urbanised brownfield environment, dominated by buildings, hardstanding and localised areas of recolonising bare ground. No habitats of more than Local Importance (Lower Value) were identified, and no Annex I habitats or rare or protected plant species were recorded.

The Important Ecological Features identified in the context of the Proposed Development comprise nesting birds associated with existing buildings on site, bats and off-site aquatic ecological receptors (including fish, otter and waterbirds) connected to the Proposed Development through an indirect hydrological pathway to the River Liffey. Other ecological receptors, including terrestrial mammals, amphibians and reptiles, were considered during the assessment; however, the site was found to provide negligible suitability for these groups and no significant effects were identified.

Potential ecological effects are limited to the construction phase and relate primarily to potential disturbance of nesting birds during demolition or site-clearance works and localised disturbance to bats and other nocturnal fauna arising from construction lighting. These effects are short-term, slight and localised in nature.

With the implementation of standard mitigation measures, including appropriate timing of works, pre-construction nest checks and controls on construction lighting, no significant residual effects on nesting birds or bats are predicted.

Potential pathways for cumulative effects, including those associated with construction-phase drainage and surface water management via the existing public sewer network to the downstream receiving environment, have been considered in alignment with the accompanying Appropriate Assessment documentation. Given the limited scale of the Proposed Development, the indirect nature of the pathway and the implementation of standard construction-phase pollution-prevention measures, no significant cumulative effects are predicted.

Overall, no significant adverse ecological effects are predicted as a result of the Proposed Development, either alone or in-combination with other plans or projects.

15. References

- Bat Conservation Trust (BCT) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines. 4th edn. London: Bat Conservation Trust.
- Chartered Institute of Ecology and Environmental Management (CIEEM) (2018, updated 2024) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Winchester: CIEEM.
- Department of Environment, Heritage and Local Government (DoEHLG) (2010) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Dublin: Department of Environment, Heritage and Local Government.
- Environmental Protection Agency (EPA) (2022) Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Wexford: Environmental Protection Agency.
- European Commission (2001) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological Guidance on the Provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Brussels: European Commission.
- Fossitt, J.A. (2000) A Guide to Habitats in Ireland. Kilkenny: The Heritage Council.
- Gilbert, G., Stanbury, A. and Lewis, L. (2021) 'Birds of Conservation Concern in Ireland 4: 2020–2026', Irish Birds, 43, pp. 1–22.
- Invasive Species Ireland (2026) Invasive Species Database. Available at: <https://invasives.ie> (Accessed: 13 July 2026).
- King, J.L., Marnell, F., Kingston, N., Rosell, R., Boylan, P., Caffrey, J.M., FitzPatrick, Ú., Gargan, P.G., Kelly, F.L., O'Grady, M.F., Poole, R., Roche, W.K. and Cassidy, D. (2011) Ireland Red List No. 5: Amphibians, Reptiles and Freshwater Fish. Dublin: National Parks and Wildlife Service.
- Marnell, F., Looney, D. and Lawton, C. (2019) Ireland Red List No. 12: Terrestrial Mammals. Dublin: National Parks and Wildlife Service.
- Marnell, F., Kelleher, C. and Mullen, E. (2022) Bat Mitigation Guidelines for Ireland. Version 2. Irish Wildlife Manuals No. 134. Dublin: National Parks and Wildlife Service.
- National Biodiversity Data Centre (NBDC) (2026) Biodiversity Maps: National Biodiversity Data Centre Online Database. Available at: <https://maps.biodiversityireland.ie> (Accessed: 13 July 2026).
- National Parks and Wildlife Service (NPWS) (2019) The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Dublin: National Parks and Wildlife Service.
- National Parks and Wildlife Service (NPWS) (2026) Protected Sites and Species Data. Available at: <https://www.npws.ie> (Accessed: 13 July 2026).
- National Roads Authority (NRA) (2009) Guidelines for Assessment of Ecological Impacts of National Road Schemes. Dublin: National Roads Authority.
- Smith, G.F., O'Donoghue, P., O'Hara, K. and Delaney, E. (2011) Best Practice Guidance for Habitat Survey and Mapping. Kilkenny: The Heritage Council.

Appendix 1

National Biodiversity Data Centre (NBDC) Desktop Study Records

NPWS Protected and Threatened Species Records

The following tables present the protected and threatened species records returned by the National Parks and Wildlife Service (NPWS) data request for Hectad O13 in support of the Ecological Impact Assessment.

Table 1 - Summary of NPWS records for hectad O13

Common Name	Scientific Name	Record Count	Earliest Year	Latest Year	Example Locations
Opposite-leaved Pondweed	<i>Groenlandia densa</i>	500+	1854	2018	Grand Canal; Royal Canal; Phibsborough
Common Frog	<i>Rana temporaria</i>	100+	1968	2011	James's Street; Rathgar; Templeogue
Eurasian Otter	<i>Lutra lutra</i>	6	1980	2010	River Tolka; Grand Canal; River Dodder
Common Gromwell	<i>Lithospermum officinale</i>	3	2018	2020	Various
Hairy St John's-wort	<i>Hypericum hirsutum</i>	5	1892	2020	Nut Island; Drimnagh
Herring Gull	<i>Larus argentatus</i>	2	2007	2007	Coolock
Common Gull	<i>Larus canus</i>	2	2007	2007	Coolock
Black-headed Gull	<i>Larus ridibundus</i>	2	2007	2007	Coolock
Barn Owl	<i>Tyto alba</i>	1	2009	2009	Not specified
River Lamprey	<i>Lampetra fluviatilis</i>	1	2002	2002	River Liffey
Twaite Shad	<i>Alosa fallax</i>	1			Not specified

Table 2 - NPWS records for hectad O13 over the past 10 years

ID	Common Name	Scientific Name	Location	Survey	Year
25624	Hairy St John's-wort	<i>Hypericum hirsutum</i>	Edge of Nut Island	Miscellaneous vascular plant records 2020	2020
25625	Hairy St John's-wort	<i>Hypericum hirsutum</i>	Along the northern perimeter path from visitors carpark	Miscellaneous vascular plant records 2020	2020
26153	Milk Thistle	<i>Silybum marianum</i>		Rare Plant Monitoring Scheme (Citizen Science, National Biodiversity Data Centre) data 2017-2022	2020
26184	Common Gromwell	<i>Lithospermum officinale</i>		Rare Plant Monitoring Scheme (Citizen Science, National Biodiversity Data Centre) data 2017-2022	2020

ID	Common Name	Scientific Name	Location	Survey	Year
26454	Common Gromwell	<i>Lithospermum officinale</i>		Rare Plant Monitoring Scheme (Citizen Science, National Biodiversity Data Centre) data 2017-2022	2019
12793					
12794					
12795	Opposite-leaved Pondweed	<i>Groenlandia densa</i>	Level 4, immediately to west of Cross Guns Bridge, Phibsborough	Miscellaneous Vascular Plant records 2018	2018
12796					
12797					
12798					
13827	Common Gromwell	<i>Lithospermum officinale</i>		Rare Plant Monitoring Scheme (Citizen Science, National Biodiversity Data Centre) data 2017-2022	2018
12759	Black Horehound	<i>Ballota nigra</i>		Miscellaneous Vascular Plant Records 2017	2017
13146	Pale Flax	<i>Linum bienne</i>		Miscellaneous vascular plant records 2020	2017
13147	Green Figwort	<i>Scrophularia umbrosa</i>		Miscellaneous vascular plant records 2020	2017
13148	Green Field-speedwell	<i>Veronica agrestis</i>		Miscellaneous vascular plant records 2020	2017
24926					
24927					
24928					
24929					
24930	Opposite-leaved Pondweed	<i>Groenlandia densa</i>	Grand Canal, Level 7	Miscellaneous Vascular Plant Records Dec 2014	2014
24931					
24932					
24933					
24934					
28833					
28834					

ID	Common Name	Scientific Name	Location	Survey	Year
28835					
28836					
28837					
28838					
28839					
28840					
28841					
28842					
28843					
28844					
28845					
28846					
28847					
28848					
28849					
28850					
28851					

Appendix 2

Site photos



Plate 1: Shed building (B1)



Plate 2: Shed building (B1)



Plate 3: Shed building (B1)



Plate 4: Shed building (B1) internals



Plate 5: Office building (B2)



Plate 6: Office building (B2)



Plate 7: Office building (B2)



Plate 8: Office building (B2) - Single small gap in lifted tile highlighted in red.



Plate 9: Office building (B2) - Tight fitting slate roof tile present.



Plate 10: Office building (B2) internals



Plate 11: Office building (B2) internals



Plate 12: Office building (B2) internals



Plate 13: Warehouse building (B3)



Plate 14: Warehouse building (B3)



Plate 15: Warehouse building (B3)



Plate 16: Warehouse building (B3)



Plate 17: Warehouse building (B3) internals



Plate 18: Warehouse building (B3) internals



Plate 19: Example of hard standing and vegetation found on site.



Plate 20: Example of hard standing and vegetation found on site.



Plate 21: Example of hard standing and vegetation found on site.



Plate 22: Butterfly-bush *Buddleja davidii*



Plate 23: Goat willow *Salix caprea*



Plate 24: Smooth hawkbeard *Crepis capillaris*



Plate 25: Herb Robert *Geranium robertianum*

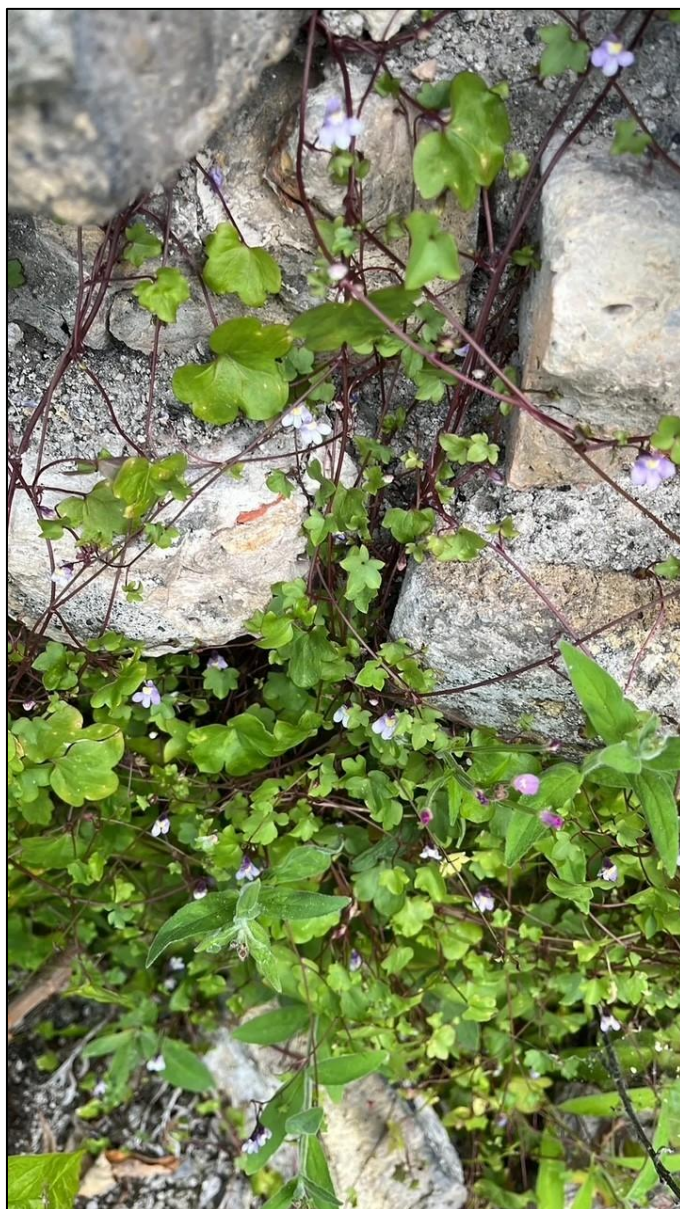


Plate 26: Ivy *Hedera helix*



Plate 27: Ragwort *Senecio* spp.



Plate 28: Perched Gull atop building B3.

ENGINEERING AND ENVIRONMENTAL CONSULTANTS



Cork

Park House,
Bessboro Road,
Blackrock, Cork
T: 021 453 6400
E: info@mwp.ie

Tralee

Reen Point,
Blennerville, Tralee,
Co. Kerry
T: 066 712 3404
E: tralee@mwp.ie

Limerick

The Elm Suite, Loughmore
Centre, Raheen Business
Park, Limerick
T: 061 480 164
E: limerick@mwp.ie

Galway

Unit 27, Top Floor
Briar Hill Business Park,
Galway,
T: 091 399 633
E: info@mwp.ie

London

2 Exchange Tower,
1-2 Harbour Exchange
Square, London
T: 0044 20 7253 0893
E: mail@mwvalsh.co.uk