

12th Lock Studios

Ecological Impact Assessment Report

South Dublin County Council

Project number: 60687020

February 2024

Quality information

Prepared by	Checked by	Verified by	Approved by
Laura Cappelli Senior Ecologist	Emma Boston MCIEEM MRSB Principal Ecologist	Tony Marshall CEcol MCIEEM Technical Director	Kieran Culleton Principal Landscape Architect
Aoife Whyte Graduate Ecologist			

Revision history

Revision	Revision date	Details	Authorised	Name	Position
01	26/02/2024	Final	Y	Kiernan Culleton	Landscape

Prepared for:

South Dublin County Council

Prepared by:

AECOM Ireland Limited
4th Floor
Adelphi Plaza
Georges Street Upper
Dun Laoghaire
Co. Dublin A96 T927
Ireland

T: +353 1 696 6220
aecom.com

© 2024 AECOM Ireland Limited. All Rights Reserved.

This document has been prepared by AECOM Ireland Limited ("AECOM") for sole use of our client (South Dublin County Council) in accordance with generally accepted consultancy principles, the budget for fees and the terms of reference agreed between AECOM and the Client. Any information provided by third parties and referred to herein has not been checked or verified by AECOM, unless otherwise expressly stated in the document. No third party may rely upon this document without the prior and express written agreement of AECOM.

Table of contents

1.	Introduction.....	1
1.1	Background.....	1
1.2	Project description.....	1
1.3	Purpose of this Report.....	1
1.4	Quality assurance and statement of authority	1
2.	Legislative and planning context.....	3
2.1	Legislation.....	3
2.2	Relevant planning policy and plans	3
2.3	Relevant guidance.....	6
3.	Methodology.....	7
3.1	Important ecological features	7
3.2	Zone of Influence	7
3.3	Consultation.....	8
3.4	Determination of baseline environment	8
3.5	Assessment methodology.....	10
3.6	Limitations and assumptions.....	12
4.	Baseline environment.....	14
4.1	Designated sites.....	14
4.2	NBDC desk study results.....	16
4.3	Habitats	17
4.4	Invasive non-native species.....	18
4.5	Protected and important species.....	18
4.6	Future baseline	20
4.7	Baseline in the absence of the Proposed Development.....	20
4.8	Features excluded from further assessment.....	20
5.	Potential impacts.....	22
5.1	Embedded mitigation.....	22
5.2	Importance of ecological features.....	23
5.3	Assessment of impacts and effects	23
5.4	Assessment of impacts and effects	24
6.	Mitigation and enhancement measures.....	28
6.1	Planting for enhancement.....	28
7.	Cumulative effects.....	29
8.	Residual impacts and conclusion.....	30
9.	References	31
	Appendix A Figures.....	33
	Appendix B Planning applications.....	34

Figures

Figure 1. Site Location

Figure 2. Ecological Designations

Figure 3. Habitat Survey

Figure 4. Invasive non-native species

Tables

Table 3.1. Desk study data sources	8
Table 3.2. Geographical scale of importance.....	11
Table 4.1. International and national nature conservation sites within the Zol of the Proposed Development	14
Table 4.2. Important species records returned by NBDC within 2 km of the Site since 2000.....	16
Table 5.1. Importance of ecological features	23
Table 5.2. Assessment of impacts and effects on ecological features	25

1. Introduction

1.1 Background

AECOM Ireland Limited (AECOM) was commissioned by South Dublin County Council (SDCC) to conduct an Ecological Impact Assessment (EclA) in relation to the Part 8 planning application for the proposed 12th Lock Studios (hereafter referred to as the 'Proposed Development'). The Proposed Development will involve the redevelopment of a large industrial unit as part of the overall 12th Lock Masterplan at the 12th Lock on the Grand Canal, Lucan, Co. Dublin.

The location of the Proposed Development is referred to as the 'Site' and is shown on Figure 1. The Site is located on hardstanding to the north of the Grand Canal, which includes pavement and derelict industrial structures.

A Preliminary Ecological Appraisal (PEA) Report was produced for the overall 12th Lock Masterplan (AECOM, 2023a). An Appropriate Assessment (AA) Screening was also produced for the Proposed Development, which concluded that likely significant effects from the Proposed Development on any European site (which comprise Special Areas of Conservation (SAC) and Special Protection Areas (SPA)), whether individually or in combination with other plans or projects, beyond reasonable scientific doubt, could be excluded (AECOM, 2024a).

1.2 Project description

The Proposed Development will involve the redevelopment of a large industrial unit north of the Grand Canal and west of the R120 to provide film production studios and related facilities for small upcoming production companies combined with flexible office space. The existing footprint will be maintained for the development of the 12th Lock Studios. The Proposed Development will include relocation of an existing Electricity Supply Board (ESB) substation within the building envelope. It will also include the demolition of two derelict structures and security fencing, which will be replaced by soft landscaping.

The Proposed Development also includes:

- use of rainwater and Sustainable Drainage Systems (SuDS) to create a wetland feature in front of the large industrial unit that will be redeveloped;
- retention of existing site accesses (north and south of the Site) and provision of an additional pedestrian site entrance to the north-east; and,
- provision of six car parking spaces, including disabled parking/drop-off areas, space for a truck to manoeuvre when entering/exiting the loading bay, and bicycle parking areas to the north and south of the Site.

The Proposed Development will be developed in line with the zoning provisions of the 12th Lock Masterplan.

1.3 Purpose of this Report

This EclA Report details the results of the desk study and field survey completed to establish the current baseline conditions at the Site. The predicted effects arising from the Proposed Development on identified ecological features – which include all designated nature conservation sites, habitats, and flora and fauna species – are described and, where necessary, appropriate and proportionate mitigation measures are prescribed. Species are given their common and scientific names when first referred to and their common names only thereafter. All distances are cited as the shortest distance 'as the crow flies', unless otherwise stated.

This Report has been prepared as part of a Part 8 application for planning permission for the Proposed Development. Other documents submitted with the planning application support this EclA Report and should be read in conjunction with it, in particular the AA Screening Report (AECOM, 2024a) and EIA Screening Report (AECOM 2024b).

1.4 Quality assurance and statement of authority

This Report and the assessment described within it has been completed in accordance with the AECOM Integrated Management System (IMS). AECOM's IMS places emphasis on professionalism, technical excellence,

quality, as well as covering health, safety, environment and sustainability management. All AECOM staff members are committed to maintaining this accreditation to those parts of BS EN ISO 9001:2015 and 14001:2015, as well as BS OHSAS 18001:2007 that are relevant to a consultancy service.

The EclIA has been carried out by AECOM ecologists with experience in conducting such appraisals. The ecology lead, Tony Marshall, is a Chartered Ecologist and full member of the Chartered Institute of Ecology and Environmental Management (CIEEM). He holds a 1st Class BSc (Hons) degree in Biological Sciences (Ecology) from the University of Edinburgh. Tony is a Technical Director who leads the AECOM Ecology Team in Ireland and Scotland. He has worked for fourteen years as a professional ecologist on projects for private and public sector clients. These have ranged from large-scale infrastructure developments to conservation projects. He has extensive experience in AA and Environmental Impact Assessment (EIA), at all stages of the processes, including scoping, baseline data collection and reporting. Recent examples of large-scale infrastructure developments on which Tony has acted as ecology lead (at the planning stage) include Shanganagh Residential (Dun Laoghaire-Rathdown), Tarbert Temporary Emergency Generation project (County Kerry), and Kent Station Through Platform (Cork).

The report was written by Laura Cappelli. She is a Senior Ecologist with five years of professional experience preparing ecological reports and surveying for a variety of species throughout Ireland. She holds a 1st Class BSc (Hons) degree in Conservation Biology from the State University of New York College of Environmental Science and Forestry and a 1st Class MSc (Hons) degree in Biodiversity and Conservation from Trinity College Dublin. She has prepared several reports including Ecological Impact Assessment, Preliminary Ecological Appraisal, and AA reports to accompany planning applications for a range of commercial development projects. Recent examples of large-scale infrastructure developments on which Laura has worked on include Tarbert Temporary Emergency Generation project (County Kerry), Great Island Power Plant (County Wexford), and Drummin Solar Farm (County Mayo).

The report was also written by Aoife Whyte. She is a Graduate Ecologist with one year of professional experience preparing ecological reports and surveying for a variety of species throughout Ireland. She holds a 1st Class BSc (Hons) degree in Biomedical Sciences with a specialisation in Zoology from Trinity College Dublin. She has prepared several reports including Ecological Impact Assessments, Preliminary Ecological Appraisal, and AA reports to accompany planning applications for a range of development projects. Recent examples of developments Aoife has worked on include greenway schemes in Linear Park and Greensbridge (Kilkenny), and bus infrastructure projects for the National Transport Authority as part of the TAS Framework (Dun Laoghaire-Rathdown and Dublin City).

The report was reviewed by Emma Boston. Dr Emma Boston BSc (Hons) MCIEEM MRSB is a Principal Ecologist with over 18 years' professional experience. She holds a 2nd Class BSc (Hons) degree in Zoology and a PhD in Conservation Biology from the Queen's University Belfast, plus has ten years' post-doctoral research experience in conservation biology. She has authored nineteen peer-reviewed publications, including four book chapters on European Bats. Emma is a Principal Ecologist who plays a key role in the management of AECOM Ecology Team in Ireland and Northern Ireland. She has worked for seven years as a professional ecologist on projects for private and public sector clients. These have ranged from large-scale infrastructure developments to conservation projects. She has extensive experience in Ecological Impact Assessment, at all stages of the process, including scoping, baseline data collection and reporting. Recent examples of large-scale infrastructure developments on which Emma has worked include greenway schemes for Cavan Active Travel (County Cavan), Linear Park and Greensbridge (Kilkenny), residential schemes including Clonburris (County Dublin) and energy projects such as Drummin Solar Farm (County Mayo) and Derrygreenagh Power Station (County Offaly).

2. Legislative and planning context

This section sets out the legislation, policy and guidance sources which have informed the scope and methodology for assessment of effects on ecological features. This Report has taken account of all relevant national, European Union and international legislation.

2.1 Legislation

The following relevant legislation were considered for this EclA:

- Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU (the 'EIA Directive');
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the 'Habitats Directive');
- Directive 2009/147/EC on the conservation of wild birds (the 'Birds Directive');
- Directive 2000/60/EC establishing a framework for Community action in the field of water policy (the 'Water Framework Directive' (WFD));
- Regulation 1143/2014 on the prevention and management of the introduction and spread of invasive alien species (the 'Invasive Alien Species Regulation');
- Convention on Wetlands of International Importance (the 'Ramsar Convention');
- European Communities (Bird and Natural Habitats) Regulations 2011 and 2015 (the 'Habitats Regulations');
- The Planning and Development Acts 2000 to 2020 (collectively referred to as the 'PDA');
- The Wildlife Act 1976 and the Wildlife (Amendment) Act 2000 (together known as the 'Wildlife Acts');
- Flora (Protection) Order 2015 S.I. No 356 of 2015 (the 'Flora Protection Order' (FPO));
- EC Environmental Objectives (Surface Waters) Regulations 2009 S.I. No 272 of 2009; and,
- Fisheries (Consolidation) Act 1959 and 2017 Policy.

2.2 Relevant planning policy and plans

The planning policies in this Section, including national planning policy, regional planning policy, local planning policy, development plans, and local and national Biodiversity Actions Plans (BAP), have been considered when assessing potential ecological constraints and opportunities identified by this ecological assessment and when assessing requirements for ecological mitigation.

2.2.1 Project Ireland 2040 National Planning Framework

The *Project Ireland 2040 National Planning Framework*¹ (NPF) sets out the Government's planning policies for Ireland and how these should be applied. The NPF sets out that to achieve sustainable development, the planning system must incorporate an environmental objective, which should include:

- integrated planning for green infrastructure and ecosystem services;
- enhancing the conservation status and improve the management of protected areas and protected species;
- use of natural resources prudently;
- minimising waste and pollution; and,
- mitigating and adapt to climate change, including moving to a low carbon economy.

There is a presumption in favour of sustainable development in NPF.

¹ <https://www.npf.ie/project-ireland-2040-national-planning-framework/>

2.2.2 National Biodiversity Action Plan 2023-2030

The *National Biodiversity Plan 2023 – 2030*² for Ireland outlines five main objectives to meet commitments under the Convention on Biological Diversity (CBD) and EU Biodiversity Strategy. These objectives include:

- adopt a whole of government, whole of society approach to biodiversity;
- meet urgent conservation and restoration needs;
- secure nature's contribution to people;
- enhance the evidence base for action on biodiversity; and,
- strengthen Ireland's contribution to international biodiversity initiative mainstreaming biodiversity into decision-making across all sectors.

2.2.3 South Dublin County Council Development Plan 2022 – 2028

The *South Dublin County Council Development Plan 2022 – 2028* (SDCC, 2022) sets out the framework to guide future development and aims to progress towards more sustainable development.

Several objectives are relevant to the Proposed Development, including:

- SM1 Objective 1 – to achieve and monitor a transition to more sustainable travel modes including walking, cycling and public transport over the lifetime of the County Development Plan;
- COS Objective 1 – to support the provision of a wide range of community facilities and to ensure that such facilities are provided in new and existing communities in tandem with housing development;
- GI2 Objective 1 – to reduce fragmentation and enhance South Dublin County's green infrastructure network by strengthen ecological links;
- GI3 Objective 3 – to promote and protect native riparian vegetation along all watercourses and ensure that a minimum 10 m vegetated riparian buffer from the top of the riverbank is maintained and/or reinstated along the watercourses within any development site;
- GI5 Objective 6 – to provide more tree cover across the county, in particular to areas that are lacking trees, with an emphasis on planting native Irish trees as appropriate;
- NCBH4 Objective 1 – to ensure that any proposal for development within or adjacent to a proposed Natural Heritage Area (pNHA) is designed and sited to minimise its impact on the biodiversity, ecological, geological, and landscape value of the pNHA;
- NCBH9 Objective 1 – to protect and enhance the important biodiversity resource offered by the Grand Canal, recognising and protecting the vital function that the Canal provides as a key corridor for habitats and wildlife from the River Shannon to the Dublin Bay;
- NCBH9 Objective 2 – to facilitate the appropriate development of the Grand Canal as a recreational route for walking, cycling, nature study, and water-based activities including fishing and kayaking, subject to environmental safeguards and assessments;
- NCBH9 Objective 6 – to seek the extension of the Grand Canal Way Green Route from the 12th Lock to Hazelhatch in partnership with Waterways Ireland and Kildare County Council, as one of the priority projects of the Cycle South Dublin programme, ensuring safeguarding of the ecological sensitives as identified along this section of the canal; and,
- NCBH9 Objective 7 – to ensure that all development proposals along the Grand Canal are accompanied by an EclA prepared by a qualified ecologist and that the recommendations of the EclA are incorporated into any development proposals including a landscape plan prepared by a qualified landscape architect.

2.2.4 Clonburris SDZ Planning Scheme

The Clonburris SDZ Planning Scheme site is located directly east of the Proposed Development along the Adamstown Road. Maintaining and improving an ecological connection between the Proposed Development and the Clonburris SDZ will be crucial for biodiversity conservation in the wider area. As such, the strategic

² https://www.npws.ie/sites/default/files/files/4th_National_Biodiversity_Action_Plan.pdf

environmental objectives of the *Clonburris SDZ Planning Scheme* (Minogue and Associates Ltd., 2018) are also relevant to the Proposed Development, which include the following:

- to safeguard and improve the quality, character, and continuity of the Grand Canal pNHA and facilitate the protected species, biodiversity, and its contribution to a fully functioning green infrastructure network; and,
- a method statement for the construction, planting regime and species selection of both 'dry' and 'wet' hedgerows shall be provided with all planning applications for developments within 10 m of existing hedgerows along the barony boundary, the Grand Canal, the River Griffeen, and the Kilmahuddrick Stream.

2.2.5 Clonburris SDZ Biodiversity Management Plan

The *Biodiversity Management Plan to Inform the Parks and Landscape Strategy of Clonburris SDZ* (Scott Cawley, 2020a) sets out biodiversity actions for the Clonburris SDZ. As mentioned above, due to the proximity of the Clonburris SDZ scheme to the Proposed Development, the biodiversity actions set out for the Clonburris SDZ are also relevant to the Proposed Development, which include the following:

- HR01 – retain habitats of ecological value where feasible with particular consideration to ecological features which provide connectivity between habitats (e.g., hedgerows and treelines). Retention of townland boundary hedgerows within open space should be given priority;
- HR04 – a biodiversity protection zone within a minimum distance of 10 m from watercourse banks will be maintained;
- HR05 – development must be set back from the Grand Canal to protect aquatic habitats and species. All buildings must be set back 50 m from the Grand Canal pNHA boundary. Other developments (such as attenuation ponds) must be set back 30 m from the Grand Canal pNHA boundary.
- HR06 – no storage/stockpiling of materials or machinery or construction works activities (except for those required to construct footpaths or bridges) will be undertaken within 50 m of the Grand Canal and River Griffeen. Where construction works will take place within 50 m of a watercourse, a risk assessment must be carried out to determine if a Construction Environmental Management Plan (CEMP) will be required;
- HR07 – where other works (e.g., footpath maintenance) must take place within 10 m of the edge of a watercourse a risk assessment should be carried out to determine if a CEMP will be required. If a risk is identified the CEMP must be developed in consultation with Inland Fisheries Ireland at application stage where feasible;
- HR08 – where meadows are to be retained within the areas of open space, particular consideration should be given to retain this habitat around other features of ecological importance such as hedgerow, water features, and scrub;
- HR10 – where woodland or individual trees are being retained, the root protection zone/area must be calculated by a qualified arborist and protective barriers for root protection should be installed;
- HR11 – particular consideration must be given to retaining woodland which provides ecological connectivity to other habitats of ecological importance and strengthens the green and blue infrastructure network;
- HR16 – where hedgerows are proposed for retention, management measures should be set out appropriate to their location and function and in accordance with the Heritage Council guidance for conserving hedgerows. Management must also include the removal of invasive non-native species (INNS) and filling in sparse patches with native species planting;
- HC01 – planting schedules for all areas within the lands should include predominately native species, and non-native species should be limited to specific areas;
- HC02 and HC03 – no invasive species will be planted on the lands;
- HC04 – where native species planting is not feasible, planting schedules should provide biodiversity value to pollinators and other fauna species;
- HC06 – proposed wildflower meadows should reflect the native existing biodiversity in the area;
- HC11 – green roofs are recommended to improve biodiversity value and as a sustainable urban drainage systems (SuDS) measure;
- HC15 – hedgerows within park areas should be planted for key habitat creation. Species must be composed of a range of native species that are also present locally;

- HC17 – retain and plant hedgerows to connect features such as the River Griffeen, the Grand Canal, the railway line and existing hedgerows, treelines and woodland;
- HC20 – for every tree felled within the Clonburris SDZ, a replacement tree must be planted;
- HC30 – new wetlands should be created with biodiversity in mind. Retention and attenuation ponds should have shallow, gently sloping areas to create suitable habitat for amphibians and other fauna;
- HC32 – a buffer zone of native habitat including trees such as willow, ash and birch should be planted around new wetlands. Plant species found in marsh and wet grassland habitat can be planted to mimic a natural habitat around new wetlands;
- HC36 – planting schedules along the railway line should have regard to habitat creation recommendations provided in the All-Ireland Pollinator Plan;
- Bi02 – existing grassland habitats should be retained or created where possible and left uncut during the winter months to provide a continuous food source for seed-eating birds;
- Bi04 and Bi05 – all proposed developments within Clonburris SDZ must consider including nest boxes or bricks for swallows, house martins and swifts. Nest boxes should be installed within the parks to accommodate a range of different species (e.g. for raptors, large birds, small birds, etc.);
- BiM01, BiM02 and BiM03 – breeding birds, barn owl *Tyto alba* and kingfisher *Alcedo atthis* should be monitored annually to assess the impacts of the development;
- Ba01 – where buildings are to be demolished or refurbished or trees with suitability for bats are to be removed within the lands, bat surveys must be carried out at the appropriate time of year by a suitability qualified ecologist to assess whether roosting bats are present and to provide advice on any further surveys, mitigation and licencing requirements;
- Ba02 – all proposals for development near bat roosts or ecological corridors must address the potential adverse impacts of lighting on bats;
- Ba03 – lighting on the northern Grand Canal towpath should be avoided and all lighting all the canal should be minimised. It is recommended that artificial lighting on the southern tow path is turned off during the peak season of bat activity (May to August inclusive). Where this is not possible, lighting proposals for the canal must be created in consultation with a suitably qualified ecologist and follow guidance by the Bat Conservation Trust (BCT);
- Ba04 and Ba04 – any developments located close to a known bat roost or ecological corridor should consider incorporating enhancement measures, such as installing bat boxes, planting hedgerows and creating ponds. All proposed developments within Clonburris SDZ must consider installing bat bricks into the building's design;
- M01 – mammal surveys must be carried out within the proposed development site and up to 150 m around the boundary to ensure no protected mammals are negatively impacted;
- I02 – installation of 'insect hotels' should be considered throughout the site; and,
- IM01 – long-term annual monitoring of aquatic habitats (the Grand Canal, feeder streams, and the River Griffeen) for white-clawed crayfish within the Clonburris SDZ should be undertaken.

2.3 Relevant guidance

Relevant guidance considered during the ecological walkover survey and for this Report includes, but is not limited to, the following:

- *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine (Version 1.2, April 2022)* published by CIEEM (CIEEM, 2022);
- *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes* published by National Roads Authority (NRA), now Transport Infrastructure Ireland (TII) (NRA, 2009a); and,
- *Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes* published by NRA, now TII (NRA, 2008a).

3. Methodology

3.1 Important ecological features

For the purposes of this EclA, important ecological features comprise:

- nature conservation sites including SPAs, SACs, Wetlands of International Importance (Ramsar sites), Natural Heritage Areas (NHAs), and pNHAs;
- habitats and species listed on Annexes I and II, respectively, of the Habitats Directive, which listing indicates importance in a European context and affords protection if designated as Qualifying Interests (QI) of an SAC;
- species listed on Annex IV of the Habitats Directive, which are known as European Protected Species (EPS) and are subject to strict protection anywhere they occur;
- bird species listed on Annex I of the Birds Directive, which listing indicates importance in a European context and affords protection where designated as Special Conservation Interest (SCI) of an SPA;
- species listed on the Wildlife Acts;
- fish species and habitats protected under the Fisheries Consolidation Act, the Inland Fisheries Act, and the Water Pollution Acts;
- plant species listed on the Flora Protection Order;
- species and habitats listed on the National Biodiversity Action Plan 2023-2030;
- species that are Nationally Rare, Nationally Scarce or listed in Red Data Lists, which are published by the National Parks and Wildlife Service (NPWS) in collaboration with relevant Northern Irish agencies (e.g. Marnell *et al.*, 2019; Regan *et al.*, 2010, King *et al.*, 2011, Lockhart *et al.*, 2012, Nelson *et al.*, 2011; Nelson *et al.*, 2019; Wyse-Jackson *et al.*, 2016);
- Birds of Conservation Concern in Ireland (BoCCI) red-listed birds (Gilbert *et al.*, 2021); and,
- invasive non-native species of plants and animals listed on the Third Schedule of the Habitats Regulations (herein 'Scheduled INNS'), those of EU concern under the EU Invasive Alien Species Regulation, and those listed by the National Biodiversity Data Centre (NBDC) as High Impact and Medium Impact in Ireland.

Other species or habitats, that may be rare, scarce or otherwise notable, are included where deemed appropriate through available information and/or professional judgement.

3.2 Zone of Influence

The 'Zone of Influence' (Zol) of the Proposed Development is the area over which ecological features may be subject to significant effects as a result of its construction, operation and/or associated activities. The Zol can extend beyond the boundary of the Proposed Development, for example where there are hydrological links extending beyond the Site boundary.

As recommended by CIEEM (2022), professionally accredited or published studies have been used to determine Zol. The Zol will vary for different ecological features depending on their sensitivity to any identified impact. The features affected could include designated sites, habitats, species, and the processes on which they depend. Establishing the Zol is an iterative process and can be informed by further desk study and field survey. Where limited information was available, the Precautionary Principle was applied and a Zol estimated on that basis.

The adopted Zol of the Proposed Development on relevant ecological features involved consideration of the following:

- review of professionally accredited and/or published literature;
- professional judgement; and,
- the results of baseline desk study and field survey carried out for the Proposed Development.

3.3 Consultation

Consultation for the 12th Lock Masterplan is also relevant to the Proposed Development. This included discussions with the SDCC Ecologist regarding baseline information and mitigation measures to be incorporated. The SDCC Ecologist advised that the connection the Grand Canal provides for notable species such as bats and otter *Lutra lutra* should remain intact. These measures have been included in the EclA.

3.4 Determination of baseline environment

3.4.1 Desk study

A desk study was carried out to identify any relevant nature conservation designations, and records of protected and notable habitats and species potentially relevant to the Proposed Development.

Accordingly, the desk study identified:

- international nature conservation designations (i.e. SACs, SPAs, Ramsar sites and United Nations Educational, Scientific and Cultural Organization (UNESCO) Biosphere Reserves) present within at least 15 km of the Site, but extended further where connectivity may exist (e.g., hydrologically);
- national nature conservation designations (i.e., NHAs and pNHAs) within 2 km of the Site;
- locally designated nature conservation sites within 2 km of the Site; and,
- records of protected and notable habitats and species within 2 km of the Site.

The desk study was carried out using a range of data sources including those listed in Table 3.1.

Table 3.1. Desk study data sources

Data source	Date accessed	Data obtained
EPA maps ³	31 January 2024	<ul style="list-style-type: none"> • International nature conservation designations within at least 15 km • Other national nature conservation designations within 2 km • Local nature conservation designations within 2 km • Information on watercourses, water quality, soils, and geology
Ordnance Survey Ireland maps and aerial photography ⁴	31 January 2024	<ul style="list-style-type: none"> • Habitats and connectivity relevant to interpretation of planning policy and potential protected / notable species constraints
NPWS Protected Sites in Ireland ⁵	31 January 2024	<ul style="list-style-type: none"> • Details on relevant designated sites
National Biodiversity Data Centre ⁶	31 January 2024	<ul style="list-style-type: none"> • Protected and notable species within 2 km of the Proposed Development
The Status of EU Protected Habitats and Species in Ireland (Article 17 Report) ⁷	31 January 2024	<ul style="list-style-type: none"> • Information on the status of habitats and species in Ireland
Irish Red Lists ⁸	31 January 2024	<ul style="list-style-type: none"> • Conservation status of plants, amphibians, reptiles, freshwater fish, invertebrates, birds and terrestrial mammals (including bats)
BirdWatch Ireland IWeBs data ⁹	31 January 2024	<ul style="list-style-type: none"> • Records of waterbirds in IWeBs sub-site locations
Ramsar sites ¹⁰	31 January 2024	<ul style="list-style-type: none"> • Ramsar sites within at least 15 km of the Proposed Development.

³ <https://gis.epa.ie/EPAMaps/>

⁴ <https://www.osi.ie/>

⁵ <https://www.npws.ie/protected-sites>

⁶ <https://maps.biodiversityireland.ie/>

⁷ <https://www.npws.ie/publications/article-17-reports/article-17-reports-2019>

⁸ <https://www.npws.ie/publications/red-lists>

⁹ <https://birdwatchireland.ie/our-work/surveys-research/research-monitoring/>

¹⁰ <https://www.irishwetlands.ie/irish-sites/>

(<https://www.irishwetlands.ie/irish-sites/>)

Bat Conservation Ireland: Bat Record Maps and Monitoring Program Reports ¹¹	31 January 2024	<ul style="list-style-type: none"> Bat record maps that can also be searched for more detail on the NBDC website, which is included above, in this table Several Irish Bat Monitoring Programme Reports which include maps of records and population trend data
Inland Fisheries Ireland (IFI) publications ¹²	31 January 2024	<ul style="list-style-type: none"> Fish records and publications throughout Ireland

Furthermore, the Site is located directly adjacent to the Clonburris SDZ lands and to the north of the Grand Canal. Therefore, the results of surveys carried out for the Clonburris SDZ and along the Grand Canal were also considered in this desk study. The following reports were reviewed:

- *Clonburris SDZ Ecological Survey Report* (Forest, Environmental Research and Services Ltd. (FERS), 2015);
- *Assessment of Bat Usage of the Grand Canal between Hazelhatch Bridge and the 12th Lock Bridge (Adamstown)* (FERS, 2016a);
- *Survey for the Occurrence of Otter along the Grand Canal between the 12th Lock Bridge and Hazelhatch Bridge* (FERS, 2016b);
- *Ecological Survey of Clonburris Strategic Development Zone, Clondalkin, Co. Dublin* (FERS, 2018);
- *Bat Report Grand Canal Greenway 12th Lock to Hazelhatch* (Doherty Environmental, 2018a);
- *Ecological Impact Assessment Grand Canal Greenway 12th Lock to Hazelhatch* (Doherty Environmental, 2018b).
- *Clonburris SDZ Planning Scheme: Strategic Environmental Assessment. Final Environmental Report. South Dublin County Council* (Minogue and Associates Ltd., 2018);
- *Winter Bird Survey of Clonburris SDZ. South Dublin County Council* (Roughan and O'Donovan, 2020);
- *Environmental Impact Assessment Report. Roads and drainage infrastructure works as approved under the Clonburris SDZ Planning Scheme (2019)* (Stephen Little and Associates, 2020);
- *Biodiversity Management Plan to Inform the Parks and Landscape Strategy of Clonburris SDZ, Clonburris, Co. Dublin* (Scott Cawley, 2020a);
- *Outline Invasive Species Management. Clonburris SDZ, Clonburris, Co. Dublin* (Scott Cawley, 2020b); and,
- *Ecological Impact Assessment, Clonburris Phase One* (AECOM, 2022).

3.4.2 Field survey

The scope of field survey was informed by the guidance contained within published documents referenced in Section 2.3, on the results of the desk study and on the emerging results of the ecological field surveys.

An ecological walkover survey was carried out within 50 m of the Site boundary (hereafter referred to as the 'survey area') on 07 and 08 July 2022 by an experienced AECOM ecologist. Additional walkover surveys were carried out on 28 April 2023 and 07 February 2024 to update and/or confirm the surveys carried out in July 2022.

The walkover survey involved an inspection of habitats in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000) and *Best Practice Guidance for Habitat Survey and Mapping* (Smith *et al.*, 2011). The standard habitat survey method was extended to search for evidence of or potential for protected and notable species within the survey area if viable habitat existed and was accessible. Direct sightings and indirect signs (e.g., field signs) of protected species or auditory evidence within the survey area were recorded if present.

Detailed survey for the presence of otter, including any resting sites, was also carried out within 200 m of the Site boundary in suitable, accessible habitat along the Grand Canal. Additionally, assessments of trees and buildings

¹¹ <https://www.batconservationireland.org/>

¹² <https://www.fisheriesireland.ie/publications>

for roosting bats within the survey area were carried out in accessible areas during the ecological walkover following guidance from BCT (Collins, 2016). A search was also made for Scheduled INNS and INNS listed as High Impact and Medium Impact in Ireland by the NBDC. Survey data and locations of habitats and species were collected using a handheld mobile mapping device.

No other targeted surveys such as bat activity surveys or breeding bird surveys were carried out within the Site as it is lacking suitable habitat for such species as it is dominated by hardstanding. In addition, the Site is unsuitable for bats due to external illumination from streetlights along the R120, adjacent to the Site. It is highly unlikely that any substantial populations of important species would use the Site given the habitats present. Although there is suitable habitat for important species such as otter, bats, and birds along the Grand Canal to the south of the Site, any indirect effects (e.g., waterborne pollution) of the Proposed Development can be mitigated through standard measures.

3.5 Assessment methodology

3.5.1 Ecological Impact Assessment

The assessment of potential impacts and effects on biodiversity follows Irish National Road Authority (NRA) (now Transport Infrastructure Ireland (TII)) guidance (NRA, 2009) and CIEEM guidance on ecological impact assessments (CIEEM, 2022). CIEEM is the leading professional membership body for ecologists in both the UK and Ireland. It provides advice, upholds standards in professional conduct and promotes best practice. Guidance in CIEEM (2022) broadly agrees with guidance in NRA (2009). The latter is commonly used in Ireland and provides detail on the use of a geographical scale of importance, which broadly concurs with CIEEM guidance.

The principal steps in the EclA are therefore:

- baseline conditions are determined by obtaining data on potentially affected ecological features through targeted desk study and field survey (both at expected project commencement and, for comparison, at a future point in the absence of the project);
- the importance of ecological features identified in the baseline is evaluated in a geographic context, determining those that require more detailed assessment;
- the potential impacts of the project that could affect ecological features are described, considering embedded mitigation and accounting for best practice and legislative requirements;
- the likely effects on ecological features are assessed and as far as possible quantified;
- measures are developed to mitigate (by avoidance or reduction), or if necessary, compensate, for likely significant adverse effects, in conjunction with other design elements;
- the significance of residual effects (beneficial or adverse) is reported; and,
- scope for ecological enhancement is considered.

The assessment employs the professional judgement of experienced ecologists, as necessary.

An ecological feature is a site, habitat, or species of nature conservation value. Only those that are 'important' and could be significantly affected by the project require detailed assessment: "*it is not necessary to carry out detailed assessment of ecological features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable*" (CIEEM, 2022). This is consistent with the EIA Directive which requires investigation of likely significant effects, as accordingly emphasised by EPA (2022). NRA (2009) prescribes a similar approach, stating that ecological features of less importance than Local (Higher) should not be subject to detailed assessment.

Existing data and criteria (e.g., Irish Red List status) are considered when determining the importance of ecological features. Where these are lacking, it is necessary to apply professional judgement. Factors considered include:

- abundance/rarity, endemism, mobility and distribution (particularly if this is changing);
- size/extent, viability, rate of decline and vulnerability;
- typicalness, species-richness, structure and connectivity/fragmentation;
- function/value to other features (e.g. habitats of notable species or buffers against impacts); and,

- restoration potential.

The importance of ecological features is described within a geographic scale. Examples of types of ecological features which might fall into the importance categories are given in Table 3.2 which is adapted from CIEEM (2022).

Table 3.2. Geographical scale of importance

Importance	Example features (subject to professional judgement)
International	<ul style="list-style-type: none"> • Internationally designated nature conservation site (or candidate / proposed international site), or site satisfying criteria for such designation, or feature essential to maintaining such sites. • Sustainable area (or part of a larger sustainable area) of best examples of Annex I habitat. • A regularly occurring internationally significant population (e.g., 1% of the international population, or potentially less for critical parts of wider populations or those at a critical life-cycle stage) of internationally important species listed on Annex I of the Birds Directive or Annex II of the Habitats Directive.
National	<ul style="list-style-type: none"> • Nationally designated nature conservation site (or proposed such site), or site satisfying criteria for such designation. • Sustainable area of good quality Annex I habitat not deemed to be of international importance, or of national priority habitat, which is a significant proportion of the resource. • Regularly occurring nationally significant population (e.g., 1% of the national population, or potentially less for critical parts of wider populations or those at a critical life-cycle stage) of species listed or protected under the Wildlife Acts or Red Data Lists, or site supporting one.
County	<ul style="list-style-type: none"> • County designated nature conservation site (or proposed such site). • Sustainable area of Annex I habitat or national priority habitat not deemed to be of higher importance (e.g., lower quality, highly fragmented, small and / or low restoration potential), or priority habitat under a Local Biodiversity Action Plan if this exists and applies at county level. • Regularly occurring County significant population (e.g., 1% of county resource, or potentially less for critical parts of wider populations or those at a critical life-cycle stage) of species listed or protected under the Habitats / Birds Directives, Wildlife Acts, Red Data Lists or Local Biodiversity Action Plan (if this exists and applies at county level), or site supporting one.
Local	<ul style="list-style-type: none"> • Priority habitat of insufficient size or quality for higher importance or degraded with low restoration potential. • Habitat providing significant biodiversity or important ecological corridors in a local context. • Small sustainable population of notable species not qualifying for higher importance or uncommon locally.
Site	<ul style="list-style-type: none"> • Common, heavily managed and/or modified habitat, and common, widespread and/or managed species.

Under CIEEM (2022) guidance there is a distinction between impact and effect. An impact is an action on an ecological feature (e.g., hedgerow removal; loss of a bat roost). An effect is the outcome of that impact on an ecological feature (e.g., effect of hedgerow loss on breeding birds; effect of bat roost loss on the conservation status of the bat species).

Impacts may occur during the construction and operational phases of a development. They may be direct or indirect (also termed 'secondary'). Direct impacts are attributable to an action associated with a development. Indirect impacts are often produced away from a development or as a result of other initial impacts.

Likely impacts/effects are characterised using those parameters below that are necessary to understand them:

- direction/quality: whether the impact/effect be beneficial, neutral or adverse;
- magnitude: the 'size', 'amount' or 'intensity' of an impact/effect, quantified as far possible;
- extent: the spatial or geographical area or distance over which the impact/effect occurs;
- duration: the time over which an impact/effect is expected to last before recovery or replacement (if possible) of the feature. Where appropriate, ecological aspects such as lifecycles are considered. The duration of an effect may be longer than the duration of an activity or impact;
- timing/frequency: timing is important since an impact/effect might not occur if it avoids critical seasons or life stages. Frequency considers activity repetition, which may have greater impact; and,

- **reversibility:** whether the impact/effect is temporary or permanent. A temporary impact/effect is one from which recovery is possible or for which effective mitigation is possible and enforceable. A permanent impact/effect is one from which recovery is either not possible or cannot be achieved within a reasonable timescale (in the context of the feature being assessed).

Consideration is given to conservation objectives, whether processes within sites will be altered, effects on habitats and species population size/viability and whether these will have an effect on conservation status. Conservation status is a function of the abundance and distribution of species and the extent, structure and function and typical supported species of habitats.

Consideration is given to cumulative effects, since impacts acting in-combination may have a cumulative effect exceeding that of the separate impacts. Cumulative effects may arise from a combination of impacts from the development itself (e.g., impacts at the construction and operation stages), or the combined impacts from different developments.

An effect (positive or negative) is significant at a specified geographical level if it affects the ecological integrity of a site or ecosystem or the conservation status of a species or habitat at that geographical level. If not significant at the level it was considered important, an effect could be significant at a lower geographic level (for example, an effect on a nationally important species may not be significant to the national population). These assessments are based on quantitative evidence where possible and as necessary through the professional judgement of experienced ecologists.

Initially, the effect significance does not consider mitigation (avoidance or reduction) or compensation measures unless these are explicitly embedded into the design of the development. The residual effect significance takes account of additional agreed and enforceable mitigation or compensation measures that are considered necessary, with the aim that, wherever possible, residual effects are not significant or are significant at a lower geographic level than the unmitigated effects.

The CIEEM guidelines (2022) advise that where there is reasonable doubt and a conclusion of no significant effect cannot be robustly reached, this uncertainty should be acknowledged and a significant effect assumed, in line with the Precautionary Principle.

3.5.2 Approach to mitigation

Where impacts on relevant ecological features are predicted, the approach to mitigation engages the following hierarchy:

1. Avoid features where possible.
2. Minimise impact by design, method of working or other measures, for example by enhancing existing features.
3. Compensate for significant residual effects (e.g., by providing suitable habitats elsewhere).

This hierarchy requires the highest level to be applied where possible (i.e., avoidance). Only where this cannot be reasonably adopted are lower levels considered, giving rationale including sufficient detail to show that the measures are feasible and will be provided.

The Project Ireland 2040 NPF supports the protection and promotion of natural assets and biodiversity via green infrastructure. Consequently, opportunities to provide biodiversity enhancement from the Proposed Development have been considered.

3.6 Limitations and assumptions

The aim of the desk study was to help characterise the baseline context of the Proposed Development and provide valuable background information that may not be captured by field survey alone. Information obtained during the desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for particular species does not necessarily mean that they do not occur in the study area. Likewise, the presence of records for particular species does not automatically mean that these still occur within the area of interest or are relevant to the Proposed Development.

Where habitat boundaries coincide with discernible boundaries on recent aerial photography (where available) the resolution is as determined by the accuracy and clarity of the aerial photography. Otherwise, habitat mapping

is as estimated in the field. Where areas of habitat are given, they are approximate and should be verified by measurement on the Proposed Development site where required for design or construction.

Private dwellings and premises were inaccessible during the ecological walkover survey and otter survey due to security fencing. Sections of the River Griffeen as well as woodland and scrub areas, in the south-eastern section of the survey area nearby the private Takeda Ireland Ltd. pharmaceutical site, were also not physically accessible due to security fencing and dense scrub vegetation. Where possible, these areas were viewed from the nearest publicly accessible location or were viewed with binoculars from public roads and paths. This is not considered to be a constraint to the findings of this EclA given these areas are not within the Site boundary and that the buildings are not proposed for repurposing or demolition.

There were no significant limitations to constrain the findings of this EclA.

4. Baseline environment

4.1 Designated sites

There are four internationally designated sites within 15 km of the Site, but which are not downstream of the Site, which are Rye Water Valley/Carton SAC, Glenasmole Valley SAC, Wicklow Mountains SAC, and Wicklow Mountains SPA.

There are four additional designated sites that are located approximately 20 km downstream of the Site in Dublin Bay, which are South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC, North Dublin Bay SAC, and North Bull Island SPA. There are also two Ramsar sites – Sandymount Strand/Tolka Estuary Ramsar site, and North Bull Island Ramsar site – located downstream of the Site in Dublin Bay.

There is one nationally designated site (the Grand Canal pNHA) located approximately 17 m to the south of the Site and a second nationally designated site (the Liffey Valley pNHA) located approximately 2.6 km downstream of the Site. There are also two nationally designated sites that are located approximately 20.5 km downstream of the Site in the Dublin Bay which are South Dublin Bay pNHA, and North Dublin Bay pNHA.

These designated sites are shown in Figure 2 and set out in Table 4.1, listed in ascending order of increasing distance from the Site.

Table 4.1. International and national nature conservation sites within the Zol of the Proposed Development

Site name [site code]	Reason(s) for designation	Distance and direction from the Site (as the crow flies and hydrological distance if relevant)
Grand Canal pNHA [002104]	Habitats found within the canal boundaries include hedgerow, tall herbs, calcareous grassland, reed fringe, open water, scrub and woodland. Otter use the canal. Opposite-leaved pondweed <i>Groenlandia densa</i> , which is listed on the Flora Protection Order is also present at the canal.	17 m south
Liffey Valley pNHA [000128]	The site is important because of the diversity of the habitats within the site, ranging from aquatic to terrestrial. A number of rare and threatened plant species have been recorded from the site including green figwort <i>Scrophularia umbrosa</i> .	2.6 km north, 3.8 km downstream
Rye Water Valley/Carton SAC [001398]	<ul style="list-style-type: none"> • Petrifying springs with tufa formation [7220] • Narrow-mouthed whorl snail <i>Vertigo angustior</i> [1014] • Desmoulin's whorl snail <i>Vertigo moulinsiana</i> [1016] 	4.1 km north-west
Glenasmole Valley SAC [001209]	<ul style="list-style-type: none"> • Semi-natural dry grasslands and scrubland facies on calcareous substrates [6210] • <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils [6410] • Petrifying springs with tufa formation [7220] 	9.9 km south-east
Wicklow Mountains SAC [002122]	<ul style="list-style-type: none"> • Oligotrophic waters containing very few minerals of sandy plains <i>Littorelletalia uniflorae</i> [3110] • Natural dystrophic lakes and ponds [3160] • Northern Atlantic wet heaths with cross-leaved heath <i>Erica tetralix</i> [4010] • European dry heaths [4030] • Alpine and boreal heaths [4060] • <i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i> [6130] • Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas [6230] • Blanket bogs (*if active bog) [7130] • Siliceous scree of the montane to snow levels <i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i> [8110] • Calcareous rocky slopes with chasmophytic vegetation [8210] 	11.6 km south-east

Site name [site code]	Reason(s) for designation	Distance and direction from the Site (as the crow flies and hydrological distance if relevant)
	<ul style="list-style-type: none"> • Siliceous rocky slopes with chasmophytic vegetation [8220] • Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles [91A0] • Otter [1355] 	
Wicklow Mountains SPA [004040]	<ul style="list-style-type: none"> • Merlin <i>Falco columbarius</i> [A098] • Peregrine <i>Falco peregrinus</i> [A103] 	14.3 km south-east
South Dublin Bay SAC and pNHA [000210]	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • <i>Salicornia</i> and other annuals colonising mud and sand [1310] • Embryonic shifting dunes [2110] 	15.7 km east, 20 km downstream
South Dublin Bay and River Tolka Estuary SPA [004024]	<ul style="list-style-type: none"> • 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] 	16.2 km east, 19.5 km downstream
Sandymount Strand/Tolka Estuary Ramsar site [832]	As per South Dublin Bay and River Tolka Estuary SPA SCI species above.	16.2 km east, 19.5 km downstream
North Dublin Bay SAC and pNHA [000206]	<ul style="list-style-type: none"> • Mudflats and sandflats not covered by seawater at low tide [1140] • Annual vegetation of drift lines [1210] • <i>Salicornia</i> and other annuals colonising mud and sand [1310] • Atlantic salt meadows [1330] • Mediterranean salt meadows [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] • Petalwort <i>Petalophyllum ralfsii</i> [1395] 	18.5 km east, 20.5 km downstream
North Bull Island SPA [004006]	<ul style="list-style-type: none"> • Light-bellied brent goose [A046] • Shelduck <i>Tadorna tadorna</i> [A048] • Teal <i>Anas crecca</i> [A052] • Pintail <i>Anas acuta</i> [A054] • Shoveler <i>Anas clypeata</i> [A056] • Oystercatcher [A130] • Golden plover <i>Pluvialis apricaria</i> [A140] • Grey plover [A141] • Knot [A143] • Sanderling [A144] • Dunlin [A149] • Black-tailed godwit <i>Limosa limosa</i> [A156] • Bar-tailed godwit [A157] 	18.5 km east, 20.5 km downstream

Site name [site code]	Reason(s) for designation	Distance and direction from the Site (as the crow flies and hydrological distance if relevant)
	<ul style="list-style-type: none"> • Curlew <i>Numenius arquata</i> [A160] • Redshank <i>Tringa totanus</i> [A162] • Turnstone <i>Arenaria interpres</i> [A169] • Black-headed gull [A179] • Wetland and waterbirds [A999] 	
North Bull Island Ramsar site [406]	As per North Bull Island SPA SCI species above.	18.5 km east, 20.5 km downstream

4.2 NBDC desk study results

Following a data search conducted in January 2024, NBDC provided records of species within 2 km of the Site made since 2000. Records of important species are provided below in Table 4.2.

Table 4.2. Important species records returned by NBDC within 2 km of the Site since 2000.

Taxon	Common name	Scientific name	Number of records	Conservation designation(s)
Birds	Barn owl	<i>Tyto alba</i>	4	BoCCI Red List, WA
	Golden plover	<i>Pluvialis apricaria</i>	3	BirdsDir A1, BoCCI Red List, WA
	Grey wagtail	<i>Motacilla cinerea</i>	8	BoCCI Red List, WA
	Kestrel	<i>Falco tinnunculus</i>	5	BoCCI Red List, WA
	Kingfisher	<i>Alcedo atthis</i>	6	BirdsDir A1, WA
	Little egret	<i>Egretta garzetta</i>	2	BirdsDir A1, WA
	Meadow pipit	<i>Anthus pratensis</i>	4	BoCCI Red List, WA
	Peregrine	<i>Falco peregrinus</i>	2	BirdsDir A1, WA
	Pochard	<i>Aythya ferina</i>	4	BoCCI Red List, WA
	Red grouse	<i>Lagopus lagopus</i>	1	BoCCI Red List, WA
	Swift	<i>Apus apus</i>	5	BoCCI Red List, WA
	Yellowhammer	<i>Emberiza citrinella</i>	8	BirdsDir A1, BoCCI Red List, WA
Invertebrates	Globular pea mussel	<i>Pisidium hibernicum</i>	1	NT
	Iridescent pea mussel	<i>Pisidium pulchellum</i>	1	EN
	Large red-tailed bumblebee	<i>Bombus lapidarius</i>	1	NT
Mammals	Brown long-eared bat	<i>Plecotus auritus</i>	6	HabDir, WA
	Common pipistrelle	<i>Pipistrellus pipistrellus sensu lato</i>	9	HabDir, WA
	Daubenton's bat	<i>Myotis daubentonii</i>	31	HabDir, WA

Taxon	Common name	Scientific name	Number of records	Conservation designation(s)
	Hedgehog	<i>Erinaceus europaeus</i>	11	WA
	Leisler's bat	<i>Nyctalus leisleri</i>	9	HabDir, WA
	Pine marten	<i>Martes martes</i>	1	WA
	Pygmy shrew	<i>Sorex minutus</i>	1	WA
	Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	11	HabDir, WA
Invasive non-native species	Blackcurrant	<i>Ribes nigrum</i>	1	Medium-impact
	Brown rat	<i>Rattus norvegicus</i>	1	High-impact
	Grey squirrel	<i>Sciurus carolinensis</i>	1	Sch Inv, High-impact
	Jenkins' spire snail	<i>Potamopyrgus antipodarum</i>	1	Medium-impact
	Rabbit	<i>Oryctolagus cuniculus</i>	3	Medium-impact

HabDir – Habitats Directive.

BirdsDir A1– Annex I of Birds Directive.

WA – Wildlife Acts.

BoCCI Red List – Birds of Conservation Concern in Ireland on the Red List.

Irish Red List status (EN - Endangered, VU - Vulnerable, NT - Near Threatened, RE – Regionally Extinct)

Sch Inv - Third Schedule of Habitats Regulations.

High-impact – high-impact invasive species in Ireland; Medium-impact – medium-impact invasive species in Ireland.

4.3 Habitats

The Site is highly urbanised and dominated by buildings and artificial surfaces (Fossitt code: BL3) (Figure 3). It includes hardstanding pavement and derelict industrial structures. The majority of the structures are modern warehouse buildings. There are also some small areas of recolonising bare ground (ED3) along the edges of the Site, which comprise sparse plants of the INNS butterfly-bush *Buddleja davidii* (non-Scheduled, medium-impact). The habitats within the Site are of low ecological importance as they are primarily hardstanding. Therefore, these habitats are not considered to support any important species.

The Grand Canal (FW3) is located approximately 17 m to the south of the Site and the historical millrace (FW4) is located directly to the south of the Site. The Grand Canal is a man-made watercourse that is approximately 12 m wide containing turbid, relatively stagnant water with a muddy bottom. There is a relatively low floral diversity within the canal as it is dominated by arrowhead *Sagittaria sagittifolia* with occasional yellow water-lily *Nuphar lutea*. The canal edges are typically gently sloped and range between 0.5 to 2.5 m wide. They are dominated by common reed *Phragmites australis* with yellow iris *Iris pseudacorus*, bulrush *Typha latifolia*, and reed canary grass *Phalaris arundinacea*. This reed dominated habitat typically grades into grassy verges with species mainly comprising false oat-grass *Arrhenatherum elatius*, rosebay willowherb *Chamaenerion angustifolium*, meadowsweet *Filipendula ulmaria*, butterbur *Petasites hybridus*, common valerian *Valeriana officinalis*, horsetail *Equisetum* spp., and hedge bindweed *Calystegia sepium*. The Grand Canal outflows into the Dublin Bay approximately 20 km from the Site.

In the wider survey area, there are some small sections of mixed broadleaved woodland (WD1), treelines (WL2) and hedgerows (WL1) along the Grand Canal and also dry meadows and grassy verges (GS2), amenity grassland (GA2), spoil and bare ground (ED2) and scrub (WS1) associated with private properties (BL3). The non-Scheduled INNS, cherry laurel *Prunus laurocerasus* (high-impact) was recorded growing as a 7 x 3 m ornamental shrub in the survey area, approximately 15 m from the Site.

4.4 Invasive non-native species

4.4.1 Fauna

No INNS faunal species were observed within the survey area during the field survey. The NBDC database search returned records of brown rat, grey squirrel, rabbit and Jenkin's spire snail within 2 km of the Proposed Development, however there is no mechanism by which the Proposed Development could cause a significant increase in these species and more importantly no realistic means by which the Proposed Development could spread them elsewhere. Therefore, non-native invasive faunal species are not considered further in this EclA.

4.4.2 Flora

The non-Scheduled, medium-impact INNS butterfly-bush is present within the Site as denoted on Figure 4. There were approximately fifteen stands of butterfly-bush within the Site, mainly scattered along the fence line with a few scattered by the buildings. However, these areas have been cleared and there are only sparse individual plants of butterfly-bush, ranging from 1 x 1 m to 2 x 2 m as shown on Figure 4.

There is also an ornamental shrub of cherry laurel (non-Scheduled, high-impact INNS) approximately 7 x 3 m, located within the survey area, around 15 m from the Site as shown on Figure 4.

4.5 Protected and important species

The baseline conditions with respect of protected and important flora and fauna species are described under the following sub-headings. Where relevant, desk study data are also referred to in the sub-headings below.

4.5.1 Important native plant species

There are no important native plant species within the Site boundary. Given the habitats present, the Site is unlikely to support any important flora. Therefore, important plant species are not considered further in this EclA.

4.5.2 Bats

No trees or structures were identified as having any potential roost features during walkover surveys.

Outside of the Site boundary, directly to the south, two structures which form part of the old mill were identified as having Low bat roost suitability (as defined by Collins (2016)). One structure ('S02') is a derelict two-storey stone structure with a long crack in the stonework on the eastern side of the structure that could harbour a small number of bats (Irish Transverse Mercator (ITM) coordinate: 702878, 732275). There is also an old culvert millrace ('S03') that could provide suitable roosting features for bats underneath the culvert (ITM coordinate: 702889, 732280). However, neither of these structures are within the Site boundary and will not be repurposed or removed as part of the Proposed Development. Therefore, roosting bats are not considered further in this EclA.

The following seven bat species have been previously recorded in the Clonburris SDZ lands to the east of the Site and along the Grand Canal: brown long-eared bat, common pipistrelle, Daubenton's bat, Leisler's bat, Nathusius' pipistrelle *Pipistrellus nathusii*, Natterer's bat *Myotis nattereri*, soprano pipistrelle, and whiskered bat *Myotis mystacinus* (Stephen Little and Associates, 2020; Doherty Environmental (2018a); FERS, 2018; FERS, 2016a; FERS, 2015). However, to the south of the Site near 12th Lock Bridge, low levels of bat activity were generally recorded, with just two soprano pipistrelle individuals passing near the bridge during a survey in August 2016. Bats more frequently were found to use the mid-section between the 12th Lock Bridge and Hazelhatch Bridge. The low levels of bat activity at each bridge were considered to be due to light pollution from the streetlights (17 lux recorded at Hazelhatch Bridge and 13 lux recorded at 12th Lock Bridge).

The watercourses (i.e., Grand Canal, River Griffeen, and wet ditches), hedgerows, treelines, and woodland parcels in the wider area provide foraging and commuting habitat for bats. These will remain unimpacted by the Proposed Development. The Site itself provides very little opportunity for foraging or commuting bats as it is well-lit and dominated by hardstanding pavement and buildings. The habitats surrounding the Site are also dominated by hardstanding and illuminated by lighting from the R120. Therefore, foraging and commuting bats are not considered further in this EclA.

4.5.3 Otter

No evidence of otter was identified during the field surveys. However, otter are known to use the Grand Canal, River Griffeen, and overflow stream in the wider area for commuting and foraging. Evidence of otter spraint was

previously identified to the west of and nearby the 12th Lock Bridge (FERS, 2016b). However, no evidence of otter has been recorded in the Grand Canal or River Griffeen in recent surveys carried out in 2018 and 2020, which was potentially due to the works at the R120, 12th Lock Bridge, and adjacent overflow stream in 2018 (Stephen Little and Associates, 2020; FERS, 2018).

There is some existing suitable habitat for otter present within the watercourses in the survey area, however, the connectivity at the Grand Canal is degraded at the 12th Lock Bridge. The 12th Lock limits the ability for otter to move along the Grand Canal due to the steep water level differences at the lock. There is also limited suitability for otter holts within the survey area as the habitats adjacent to the watercourses are typically hardstanding, however otters could use any gaps in stone walls or couches in the grass as resting sites.

4.5.4 Other mammals

No evidence of other mammals were identified during the field survey. However, other mammals have been previously identified in the wider Clonburris SDZ lands and along the Grand Canal such as badger, hedgehog, Irish stoat, and pygmy shrew. However, there is no suitable habitat for these species within the Site given the built environment. Therefore, other mammals are not considered further in this EclA.

4.5.5 Amphibians and reptiles

No evidence of amphibians or reptiles were identified within the survey area. However, suitable habitat for common frog includes watercourses and the attenuation pond approximately 100 m to the south of the Site. Furthermore, suitable habitat for common lizard *Zootoca vivipara* is present within woodlands, recolonising bare ground, and scrub in the surrounding area. However, there is limited suitability for amphibians and reptiles within the Site itself and it is unlikely to support populations of these species. Therefore, amphibians and reptiles are not considered further in this EclA.

4.5.6 Birds

No important birds were incidentally noted during the field survey. However, the habitats within the wider survey area, particularly along the Grand Canal, are suitable for a range of breeding and non-breeding bird species. Habitats such as the woodland, scrub, hedgerows, and treelines may provide nesting, shelter, and foraging opportunities for a variety of bird species. Waterbirds, such as kingfisher and grey wagtail, may also use the watercourses within the survey area as commuting and foraging habitat. However, the banks are gently sloped and not suitable for kingfisher nesting. Abandoned fields within the surrounding area could also provide roosting habitat for non-breeding birds.

The following BoCCI Red-listed bird species were recorded during breeding bird surveys in the Clonburris SDZ to the east of the Site: grey wagtail, meadow pipit, and swift. Barn owl and kestrel were the only BoCCI Red-listed raptor species recorded in the Clonburris SDZ. The BoCCI red-listed bird species recorded during the non-breeding surveys were lapwing *Vanellus vanellus*, meadow pipit, redwing *Turdus iliacus*, and snipe *Gallinago gallinago*. However, the Site itself is unsuitable for important breeding or non-breeding birds given the hardstanding habitats present. The Proposed Development will not directly impact on surrounding habitats beyond the Site boundary. Therefore, given the urban environment and minor nature of the works for the Proposed Development, birds are not considered further in this EclA.

4.5.7 Fish

No important fish were incidentally observed during the field survey. However, both the River Griffeen and the Grand Canal support fish as indicated from the desk study.

FERS (2018) noted that the diversity and abundance of fish in the Grand Canal have declined considerably from 2015 to 2018. There were high numbers of roach *Rutilus rutilus* and perch *Perca fluviatilis* in 2015 and few of these individuals recorded in 2018 (FERS, 2018). River Griffeen has not been specifically surveyed for fish during surveys of the Clonburris SDZ, however FERS (2015) noted that the River Griffeen contains trout *Salmo* sp.

The *Water Framework Directive Fish Stock Survey of Rivers in the Eastern River Basin District* (Kelly *et al.*, 2011) has records of brown trout *Salmo trutta*, European eel *Anquilla anquilla*, roach, and three-spined stickleback *Gasterosteus aculeatus* within the River Griffeen from 2011 surveys. The River Griffeen also has populations of Atlantic salmon *Salmo salar* and sea trout *Salmo trutta trutta* according to Inland Fisheries Ireland (Stephen Little and Associates, 2020). Atlantic salmon (vulnerable, listed in Annex II and V of the Habitats Directive) and European eel (critically endangered) are of conservation concern in Ireland (King *et al.*, 2011; Nelson *et al.*, 2019).

4.5.8 Invertebrates

No important invertebrates were incidentally observed during the field survey.

In the Clonburris SDZ lands to the east of the Site, important terrestrial invertebrates previously recorded include red-tailed bumblebee *Bombus lapidarius* (near threatened) and moss carder bee *Bombus muscorum* (near threatened). Several relatively common butterflies, bees and bumblebees were also recorded within the Clonburris SDZ during previous invertebrate surveys (FERS, 2018). However, the Site itself is dominated by hardstanding and is unlikely to support any important invertebrate populations. Therefore, terrestrial invertebrates are not considered further in this EclA.

White-clawed crayfish *Austropotamobius pallipes*, which is protected by the Wildlife Act, were recorded by FERS (2015) in the historical overflow stream and River Griffeen near 12th Lock. They were also recorded in relatively high numbers in the Grand Canal and feeder stream in Cappagh in 2015. However, aquatic invertebrate diversity was relatively low in the Grand Canal, the River Griffeen, and streams adjacent to the Grand Canal in 2018 during surveys carried out by FERS. White-clawed crayfish was absent from all sampling locations in 2018 by FERS except for one feeder stream in Cappagh adjacent to the Grand Canal where white-clawed crayfish was present in low numbers. However, the data recorded in 2018 is unlikely to represent the baseline environment due to unusual weather conditions of high temperatures and drought that summer. Furthermore, the overflow stream near the 12th Lock Bridge could not be surveyed by FERS due to the engineering works. Surveys carried out between 12th Lock and Hazelhatch in 2018 by Doherty Environmental (2018b) identified white-clawed crayfish in abundance along the canal bed during visual surveys. Both adult and juveniles were identified and indicated a stable population within the Grand Canal. Crayfish remains were also abundant within otter spraints (Doherty Environmental, 2018b).

Records of two mollusc species within 2 km of the Site were returned from the NBDC database search. Globular pea mussel *Pisidium hibernicum* (near threatened) and iridescent pea mussel *Pisidium pulchellum* (endangered) were both identified in the Grand Canal in 2003. Pea mussel (only identified to the genus level) was recorded within the Grand Canal to the south of the Site, but not recorded in the River Griffeen (FERS, 2015).

4.6 Future baseline

The construction phase of the Proposed Development will extend to a period of approximately 18 months and is proposed to commence in September 2024. Therefore, given the short intervening period, the baseline for the Site at the time of the proposed works is not expected to change from that described above.

There are no other known or likely land use changes, or changes to the terrestrial, coastal or marine environment within the Zol of the Proposed Development, that have the potential to significantly change the baseline ecological conditions at the time of construction of the Proposed Development.

Very minor changes in the distribution of some species may occur due to small-scale changes in habitat structure as a result of ecological succession or other natural processes, or human interventions. Any such changes are very likely to be within the range of normal inter-annual variation in the distribution and abundance of local species populations.

It is therefore expected that the current baseline conditions will remain largely unchanged by the time of construction of the Proposed Development.

4.7 Baseline in the absence of the Proposed Development

The future baseline in the absence of the Proposed Development (the 'do nothing scenario'), taken for these purposes to be the situation 30 years from the time of writing, would likely involve redevelopment with other infrastructure given the brownfield, urban location of the Site. In other words, it is very likely that even if the Proposed Development were not to be progressed, some other form of regeneration would occur and the Site can reliably be expected to have been built upon. Furthermore, the Site is zoned for development within the SDCC Development Plan (SDCC, 2022) and so the lands will likely be developed at some stage in the future.

4.8 Features excluded from further assessment

Relevant ecological features are those that are considered to be 'important' and have the potential to be affected by the Proposed Development (CIEEM, 2022). In view of the baseline data obtained through the desk study and field survey, following features were excluded from further assessment because there is considered to be no possible effect on them, through absence of the feature or clear absence of an impact pathway:

- habitats within the Site;
- non-native invasive faunal species;
- important native plant species;
- bats (including roosting bats and foraging and commuting bats);
- other mammals;
- amphibians and reptiles;
- birds (including breeding and non-breeding birds); and,
- terrestrial invertebrates.

5. Potential impacts

5.1 Embedded mitigation

Embedded mitigation measures are incorporated into the design of a development and aim to avoid or reduce adverse effects, including those on ecological features. Embedded mitigation is considered at the initial impact assessment stage, whereas mitigation that is not part of the design and is developed after the initial impact assessment is considered at the residual effects stage.

A range of measures that are standard best practice for development of this type, including those required to comply with environmental protection and nature conservation legislation will also be implemented. These are well-developed and have been successfully implemented on infrastructure projects across the country and there is a high degree of confidence in their success. They can therefore be treated as embedded mitigation. These include:

- all personnel involved in the construction of the Proposed Development will be made aware of the ecological features within the Zol of the Proposed Development and the mitigation measures and working procedures that must be adopted. This will be achieved as part of the induction process and through the delivery of Toolbox Talks, where required;
- an Ecological / Environmental Clerk of Works (ECoW) will be employed for the duration of the construction of the Proposed Development. The ECoW will advise on and monitor implementation of ecological mitigation measures and compliance with legislative requirements in relation to ecological features. The ECoW will also carry out pre-works checks for protected and/or notable species and provide other ecological advice as necessary;
- a Construction Environmental Management Plan (CEMP) will be prepared by the appointed Contractor prior to commencement of construction. The CEMP will set out all environmental management measures and the roles and responsibilities of construction personnel;
- during all phases of the Proposed Development (construction and operation), pollution prevention measures will be adopted and included within the CEMP. Measures will include the following:
 - controls and contingency measures will be provided to manage run-off from construction areas and to manage sediment;
 - all oils, lubricants or other chemicals will be stored in an appropriate secure container in a suitable storage area, with spill kits provided at the storage location and at places across the Site;
 - in order to avoid pollution impacts to soils and vegetation during construction, all refuelling and servicing of vehicles and plant will be carried out in a designated area which is bunded and has an impermeable base;
- as far as possible, works that will directly impact upon areas of vegetation that could be used by nesting birds will be undertaken outside of the breeding season, which is taken to be between March and August, inclusive. Should vegetation clearance works be required during the breeding season, a pre-works check for active nests will be carried out by an ECoW or suitably experienced ecologist / ornithologist. Such checks will be completed no more than 72 hours in advance of clearance works taking place as nests can be quickly established. Where any active nests are identified, suitable species-specific exclusion zones will be implemented and maintained until the breeding attempt has concluded;
- sightings of protected or important species within the Site during the construction phase will be recorded. If any evidence or sightings of protected species is found within 30 m of works, then works in that area will stop immediately and an ecologist should be contacted for further advice;
- any excavations will be left with a method of escape for any animals that may enter overnight, and will be checked at the start of each working day to ensure no animals are trapped within them; and,
- any pipes will be capped or otherwise blocked at the end of each working day, or if left for extended periods of time, to ensure no animals become trapped.

The following two objectives from the Clonburris SDZ Biodiversity Management Plan (Scott Cawley (2020a)) were also considered as appropriate mitigation measures for the Proposed Development, and will be implemented;

- no storage/stockpiling of materials or machinery or construction works activities (except for those required to construct footpaths or bridges) will be undertaken within 50 m of the Grand Canal and River Griffeen. Where construction works will take place within 50 m of a watercourse, a risk assessment must be carried out to determine if a CEMP will be required; and,
- where other works (e.g., footpath maintenance) must take place within 10 m of the edge of a watercourse a risk assessment should be carried out to determine if a CEMP will be required. If a risk is identified the CEMP must be developed in consultation with Inland Fisheries Ireland at application stage where feasible.

5.2 Importance of ecological features

The importance ecological features identified in the baseline conditions and scoped into the EclA is assigned in Table 5.1 together with the rationale. Ecological importance has been assessed on a geographic scale following CIEEM (2022). For the purposes of defining geographical scale in this assessment, 'County' is defined as Co. Dublin, 'Local' as the area within 5 km of the Proposed Development and 'Site' as the Site and survey area.

5.3 Assessment of impacts and effects

Table 5.1. Importance of ecological features

Ecological feature	Importance	Rationale
Rye Water Valley/Carton SAC [001398]	International	International nature conservation designation
Glenasmole Valley SAC [001209]	International	International nature conservation designation
Wicklow Mountains SAC [002122]	International	International nature conservation designation
Wicklow Mountains SPA [004040]	International	International nature conservation designation
South Dublin Bay and River Tolka Estuary SPA [0040240]	International	International nature conservation designation
South Dublin Bay SAC [000210]	International	International nature conservation designation
South Dublin Bay SAC and pNHA [000210]	International	International nature conservation designation
North Dublin Bay SAC and pNHA [000206]	International	International nature conservation designation
North Bul Island SPA [004006]	International	International nature conservation designation
Sandymount Strand/Tolka Estuary Ramsar site [832]	International	International nature conservation designation
North Bul Island Ramsar site [406]	International	International nature conservation designation
Grand Canal pNHA [002104]	National	National nature conservation designation
Liffey Valley pNHA [000128]	National	National nature conservation designation
Invasive non-native species: butterfly-bush and cherry laurel	Local	These species are not important through ecological value but for their potentially negative effects on biodiversity. The main risk is the potential for the spread INNS during construction. Cherry laurel and butterfly-bush are non-Scheduled INNS and are not of EU concern. INNS can impact the local populations of native species.
Otter	Local	Habitats in the Site are unsuitable for otter, due to the hardstanding nature of the Site and lack of watercourses. The Grand Canal is approximately 17 m to the south of the Site and the River Griffeen is approximately 206 m to the east of the Site. These watercourses provide foraging and commuting opportunities for otter in the local area and offer an important commuting corridor to high value habitats in the wider area such as the River Liffey. For these reasons, these nearby watercourses are assumed to be important for local otter populations, and so Local importance has been assigned.
Fish	Local	Habitats in the Site are unsuitable for fish due to the hardstanding nature of the Site and the lack of watercourses. The Grand Canal lies within the survey area, approximately 17 m to the south of the

Ecological feature	Importance	Rationale
Aquatic invertebrates	Local	<p data-bbox="885 226 1398 421">Site and the River Griffeen is approximately 206 m to the east of the Site. These watercourses offer suitable habitat for a variety of fish species and provide a link to high value habitats in the wider area such as the River Liffey. For these reasons, the Grand Canal and the River Griffeen are considered important for local fish populations, and so Local importance has been assigned.</p> <p data-bbox="885 436 1398 736">Habitats in the Site are unsuitable for aquatic invertebrates due to the hardstanding surfaces and lack of watercourses. The Grand Canal lies within the survey area, approximately 17 m to the south of the Site and the River Griffeen is approximately 206 m to the east of the Site. These watercourses provide habitat for local aquatic invertebrates, and they are also connected to high value habitats in the wider area. For these reasons the Grand Canal and the River Griffeen are assumed to be important for local aquatic invertebrate populations, and so Local importance has been assigned.</p>

5.4 Assessment of impacts and effects

The predicted impacts and effects of the construction/operational phases of the Proposed Development are set out in Table 5.2 with further, more detailed mitigation (beyond the embedded mitigation in Section 5.1) proposed where necessary. The scale of residual effects, accounting for any such further mitigation, is provided in the final column. There is no expectation of a decommissioning phase.

Table 5.2. Assessment of impacts and effects on ecological features

Ecological feature (Importance)	Impacts and effects	Scale of initial effect	Specific mitigation	Scale of residual effect
European sites: Rye Water Valley/Carlton SAC, Glenasmole Valley SAC, Wicklow Mountains SAC, Wicklow Mountains SPA, South Dublin Bay and River Tolka Estuary SPA, South Dublin Bay SAC and pNHA, North Dublin Bay SAC and pNHA and North Bull Island SPA (International)	The AA Screening Report (AECOM, 2024a) concluded no likely significant effects on any European sites.	None	None needed.	None
Other international nature conservation designations: Sandymount Strand/Tolka Estuary Ramsar site and North Bull Island Ramsar site (International)	Sandymount Strand/Tolka Estuary Ramsar site and North Bull Island Ramsar site, both lie within the SPAs which were assessed during the AA Screening Assessment, thus there is no potential for impacts to these Ramsar sites as the AA Screening Report concluded no likely significant effects on any European sites (AECOM, 2024a).	None	None needed.	None
National nature conservation designations: Grand Canal pNHA and Liffey Valley pNHA (National)	Grand Canal pNHA is designated for habitats such as hedgerows, tall herbs, calcareous grassland, reef fringe, open water, scrub and woodland that supports a diverse range of species such as otter and white-clawed crayfish. The Grand Canal pNHA is located 17 m to the south of the Site, thus there is a very low risk of construction pollution reaching the watercourse via surface water runoff. On the very unlikely basis that pollution should enter the Grand Canal watercourse, there is no potential for an adverse effect, significant or otherwise, given the minor nature of any such pollution (considering the minor nature of the works). Furthermore, the AA Screening Report (AECOM, 2024a) concluded no likely significant effects on European sites. By inference, therefore, there will also be no likely significant effects on Grand Canal pNHA and Liffey Valley pNHA sites. This effectively equates to a <u>no effect</u> in EclA terms.	Negligible	Standard pollution prevention measures will safeguard the Grand Canal pNHA and consequently the Liffey Valley pNHA downstream. The standard pollution prevention measures will avoid any potential impacts from the Proposed Development as detailed in Section 5.1 and these measures will be included within the CEMP and implemented during construction. Measures include those from <i>The Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes</i> (NRA, 2008) and the <i>Planning for Watercourses in the Urban Environment</i> (IFI, 2020). In addition, pollution of aquatic habitats will be prevented through implementation of the proposed SuDS features.	None
INNS – butterfly-bush and cherry laurel (Local)	No Scheduled INNS were identified within the Site or survey area. Small, scattered plants of butterfly-bush were identified within the Site. As construction works are required at or adjacent to the locations of butterfly-bush plants, there would be potential for seeds / propagules of these species to be disturbed and transferred to new sites because of construction activities. For example, seeds / propagules could be moved with soils or carried on vehicles and machinery to new	Permanent Adverse effect of Local importance	Biosecurity measures will be implemented to prevent the further spread of INNS. These measures must be clearly set out in a Method Statement for the works.	Negligible

Ecological feature (Importance)	Impacts and effects	Scale of initial effect	Specific mitigation	Scale of residual effect
	<p>locations where the plant species concerned could then grow and establish and out-complete other plants.</p> <p>Cherry laurel is located within the survey area but it should not be disturbed given it is outside the area of works for the Proposed Development.</p>			
<p>Otter (Local)</p>	<p>Indirect impact to otter via potential effect to water quality.</p> <p>The Site has no watercourses and is composed of hardstanding, thus there will be no direct loss of otter habitat as a result of the Proposed Development. However, the Grand Canal is located 17 m to the south of the Site, and so there is a very low risk of construction pollution reaching the watercourse via surface run-off. As discussed above, otter are known to use the Grand Canal, the River Griffeen and the overflow stream as they offer suitable commuting and foraging for otter. As such, otter have the potential to be indirectly impacted via waterborne pollution of these waterbodies. However, given the distance of travel for surface run-off, and the minor nature of the works the potential for an adverse effect is considered Negligible.</p>	Negligible	<p>Standard pollution prevention guidelines, as outlined in Section 5.1 will be included within the CEMP and implemented during construction.</p> <p>In addition, pollution of aquatic habitats will be prevented during operation of the Proposed Development through implementation of proposed SuDS features.</p>	Negligible
<p>Fish (Local)</p>	<p>Indirect impact to fish via potential effect to water quality</p> <p>Any fish species currently using the Grand Canal and/or the River Griffeen will be largely unaffected by the works of the Proposed Development as there are no works proposed within any watercourses and consequently, no possibility for a loss of instream habitat. However, the Grand Canal is located 17 m to the south of the Site, thus there is a low risk of construction pollution reaching the watercourse via surface run-off. The Grand Canal and the River Griffeen have suitable habitat to support a number of fish species and similar to otter, fish species have the potential to be indirectly impacted via waterborne pollution of these waterbodies. However, given the distance of travel for surface run-off and the minor nature of the works the potential for an adverse effect to fish is considered Negligible.</p>	Negligible	<p>Standard pollution prevention guidelines, as outlined in Section 5.1 will be included within the CEMP and implemented during construction.</p> <p>In addition, pollution of aquatic habitats will be prevented during operation of the Proposed Development through implementation of proposed SuDS features.</p>	None
<p>Aquatic invertebrates (Local)</p>	<p>Indirect impact to aquatic invertebrates via potential effect to water quality</p> <p>The River Griffeen and Grand Canal have suitable habitat to support a variety of aquatic invertebrate species. Any aquatic invertebrates currently using the Grand Canal and/or the River Griffeen will be largely unaffected by the works of the Proposed Development as there are no works proposed within any watercourses and consequently, no possibility for a loss of instream habitat. However, similar to fish and otter, aquatic invertebrates have the potential to be indirectly impacted via waterborne pollution of these waterbodies, via surface run-off.</p>	Negligible	<p>Standard pollution prevention guidelines, as outlined in Section 5.1 will be included within the CEMP and implemented during construction.</p> <p>In addition, pollution of aquatic habitats will be prevented during operation of the Proposed Development through implementation of proposed SuDS features.</p>	None

Ecological feature (Importance)	Impacts and effects	Scale of initial effect	Specific mitigation	Scale of residual effect
	However, given the distance of travel for surface run-off and the minor nature of the works the potential for an adverse effect to aquatic invertebrates is considered Negligible.			

6. Mitigation and enhancement measures

Specific mitigation measures (further to the embedded mitigation as described in Section 5.1) will be implemented to minimise adverse effects on ecological features identified above. The implementation of mitigation does not replace or negate the requirement for legislative compliance.

6.1 Planting for enhancement

At the design stage, liaising with SDCC Public Realm Department will be carried out to determine the final landscape design and detailed aspects of landscape that will be incorporated.

As detailed in the 12th Lock Area Plan (AECOM 2023b), soft landscaping is proposed within the Site to include planting regimes including natural planting and buffer planting. Any proposed planting will comprise native species appropriate to the area and found locally as these are beneficial for biodiversity. Native tree species such as wild cherry *Prunus avium*, silver birch *Betula pendula*, hazel *Corylus avellana* and rowan *Sorbus aucuparia*, and native scrub species such as elder *Sambucus nigra*, hawthorn *Crataegus monogyna*, and guelder-rose *Viburnum opulus* are recommended. By doing so, the Proposed Development has the opportunity to meet the following objectives; HC01, HC02, HC03, HC04, and HC17 of the Clonburris SDZ Development Plan.

Sustainable Drainage Systems (SuDS) features are proposed for the Proposed Development and will meet objective HC11 of the Clonburris SDZ Development Plan. The use of SuDS features and rainwater are proposed to create a wetland feature in front of the large retained structure. The creation of a wetland aims to strengthen the relationship of the Site with the Grand Canal and will also meet objective HC30 of the Clonburris SDZ Development Plan. In line with HC32, a buffer zone of native habitat including trees such as willow *Salix* spp., ash *Fraxinus* spp. and birch *Betula* spp. will be planted around new wetlands. Plant species found in wet grassland habitat will be planted to mimic a natural habitat.

The following planting measures will also be adopted to compliment the 12th Lock Area Plan and soft landscaping on Site:

- INNS will not be included in any planting schemes;
- native hedges and scrub will be planted where appropriate for enhancement to provide dense shelter for species and produce flowers and fruit for species;
- any proposed gardens and landscaped amenity areas will include a diversity of plant families with consideration of varying flowering times to support invertebrate species such as pollinators. A mix of flower species available for as much of the year as possible without gaps will be included. Species that provide shelter and edible seeds and fruits will also be considered in planting regimes. Plants may require future levels of management such as watering and pruning. Areas of long grass that are allowed to die back can be useful for nesting and shelter. Meadows typically require regular maintenance and monitoring and need to be cut regularly and often twice a year. Therefore, a Landscape Maintenance Plan (LMP) will be prepared prior to construction; and,
- any proposed swales and/or SuDs ponds, will include wet meadow mixes.

7. Cumulative effects

Cumulative effects can result from individually insignificant but collectively significant actions taking place over a period of time or concentrated in a location (CIEEM, 2022). Effects which arise in-combination with other projects or plans must be considered as part of the AA Screening process. In accordance with OPR (2021), the assessment of in-combination effects must examine:

- completed projects
- projects which are approved but not completed
- proposed projects (i.e. for which an application for approval or consent has been made, including refusals subject to appeal and not yet determined)
- proposals in adopted plans
- proposals in finalised draft plans formally published or submitted for consultation or adoption

A review of the National Planning Application Database (NPAD) was carried out to identify any planning applications from the last five years within close proximity (i.e., 1 km) of the Proposed Development. Planning applications that have been identified as having the potential to act in-combination with the Proposed Development are detailed in Appendix B with their planning status. No possible effects were identified for any impacts which may arise from the Proposed Development. No plans have been identified which could give rise to in-combination effects with the possible impacts from the Proposed Development.

Waterborne pollution must be managed as a requirement of other relevant legislation by these projects. In addition, a range of measures will be adopted by the Proposed Development at all phases to ensure no pollution of the water environment. It can therefore be reliably concluded that this possible impact will not give rise to significant adverse effects on European sites in-combination with the Proposed Development.

It is thus concluded that there will be no adverse effects on the integrity of any European sites from the Proposed Development acting in-combination with any plans or projects.

8. Residual impacts and conclusion

For the purposes of this EclA, only effects which are judged to be of Local significance or higher are considered to be Significant. On this basis, even in the absence of mitigation, there are not expected to be any Significant effects on important ecological features from the construction and operation of the Proposed Development.

With the inclusion of embedded mitigation measures, there are no residual adverse ecological effects, on designated sites, habitats or protected or important species predicted. In all cases there is no effect or a negligible effect.

9. References

- AECOM (2024a). 12th Lock Studios Appropriate Assessment Screening Report. Produced for South Dublin County Council.
- AECOM (2024b). 12th Lock Studios Environmental Impact Assessment Screening Report. Produced for South Dublin County Council.
- AECOM (2023a). 12th Lock Masterplan Preliminary Ecological Appraisal. Produced for South Dublin County Council.
- AECOM (2023b). 12th Lock Area Plan. Produced for South Dublin County Council.
- AECOM (2022). *Clonburris Phase One Ecological Impact Assessment*.
- CIEEM (2022). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.
- Collins (2016). Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). The Bat Conservation Trust, London.
- Doherty Environmental (2018a). Bat Report Grand Canal Greenway 12th Lock to Hazelhatch.
- Doherty Environmental (2018b). Ecological Impact Assessment Grand Canal Greenway 12th Lock to Hazelhatch.
- FERS (2015). Clonburris SDZ Ecological Survey Report.
- FERS (2016a). Assessment of Bat Usage of the Grand Canal between Hazelhatch Bridge and the 12th Lock Bridge (Adamstown).
- FERS (2016b). Survey for the Occurrence of Otter along the Grand Canal between the 12th Lock Bridge and Hazelhatch Bridge.
- FERS (2018). *Ecological Survey of Clonburris Strategic Development Zone, Clondalkin, Co. Dublin*.
- Fossitt, J. (2000). A Guide to Habitats in Ireland. Heritage Council, Kilkenny.
- Gilbert, G., Andrew, S., and Lewis, L. (2021). Birds of Conservation Concern in Ireland 4: 2020–2026. Irish Birds 43 1-22.
- Inland Fisheries Ireland (2020). *Planning for Watercourses in the Urban Environment. A Guide to the Protection Watercourses through the use of Buffer Zones, Sustainable Drainage Systems, Instream Rehabilitation, Climate / Flood Risk and Recreational Planning*. Inland Fisheries Ireland, Citywest Business Campus, Co. Dublin.
- Institute of Lighting Professionals (2018). Bats and Artificial Lighting in the UK. Bats and the Built Environment series. Guidance note.
- Kelly, F.L., Matson, R., Connor, L., Feeney, R., Morrissey, E., Wogerbauer, C., and Rocks, K. (2011). Water Framework Directive Fish Stock Surveys of Rivers in the Eastern River Basin District, 2011. Inland Fisheries Ireland, Swords, Co. Dublin.
- 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. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Lockhart, N., Hodgetts, N., and Holyoak, D. (2012). Ireland Red List No. 8 Bryophytes. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland.
- Marnell, F., Kingston, N., and Looney, D. (2009) Ireland Red List No. 3: Terrestrial Mammals. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.
- Minogue and Associates Ltd. (2018). *Clonburris SDZ Planning Scheme: Strategic Environmental Assessment. Final Environmental Report*. South Dublin County Council.

NRA (2008a). Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes. National Roads Authority, Ireland.

NRA (2008b). Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes. National Roads Authority, Ireland.

NRA (2009a). Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes. National Roads Authority, Ireland.

NRA (2009b). Guidelines for Assessment of Ecological Impacts of National Roads Schemes. National Roads Authority, Ireland.

Nelson, B., Ronayne, C., and Thompson, R. (2011). Ireland Red List No.6: Damselflies and Dragonflies (Odonata). National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Dublin, Ireland.

Nelson, B., Cummins, S., Fay, L., Jeffrey, R., Kelly, S., Kingston, N., Lockhart, N., Marnell, F., Tierney, D., and Wyse Jackson, M. (2019). Checklists of protected and threatened species in Ireland. Irish Wildlife Manuals, No. 116. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht, Ireland.

Regan, E.C., Nelson, B., Aldwell, B., Bertrand, C., Bond, K., Harding, J., Nash, D., Nixon, D., and Wilson, C.J. (2010). Ireland Red List No. 4 – Butterflies. National Parks and Wildlife Service, Department of the Environment, Heritage and Local Government, Ireland.

Roughan and O'Donovan (2020). Winter Bird Survey of Clonburris SDZ. South Dublin County Council.

Scott Cawley (2020a). Biodiversity Management Plan to Inform the Parks and Landscape Strategy of Clonburris SDZ, Clonburris, Co. Dublin. South Dublin County Council.

Scott Cawley (2020b). Outline Invasive Species Management Clonburris SDZ, Clonburris, Co. Dublin. South Dublin County Council.

Stace, C.A. (2019). New Flora of the British Isles. C&M Floristics.

Smith, G.F., O'Donoghue P., and Delaney, E. (2011). Best Practice Guidance for Habitat Survey and Mapping. The Heritage Council, Ireland.

South Dublin County Council (2022). South Dublin County Development Plan 2022 - 2028. Written Statement. County Hall, Tallaght, Dublin 24.

Stephen Little and Associates (2020). Environmental Impact Assessment Report. Biodiversity Chapter (Scott Cawley). Roads and drainage infrastructure works as approved under the Clonburris SDZ Planning Scheme (2019).

Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. and Wright, M. (2016). Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

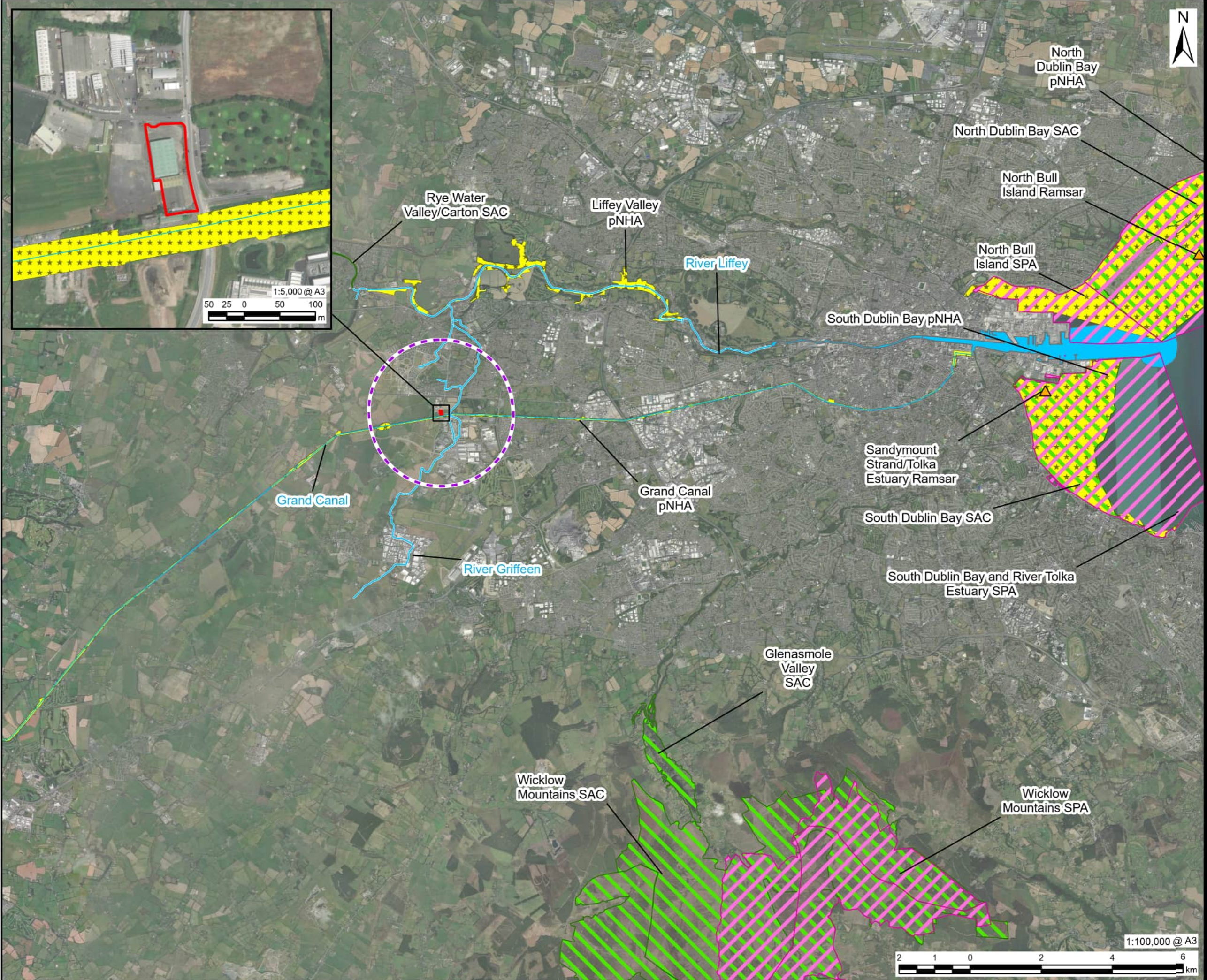
Appendix A Figures

Figure 1 – Site Location

Figure 2 – Ecological Designations

Figure 3 – Habitat Survey

Figure 4 – Invasive non-native species



LEGEND

- Site
- 2km around Site
- Watercourses
- Special Protection Area (SPA)
- Special Area of Conservation (SAC)
- Proposed Natural Heritage Area (pNHA)
- ▲ Ramsar site

NOTES

Copyright Government of Ireland. Licensed for re-use under the Creative Commons attribution 4.0 International Licence.
Maxar, Microsoft, Earthstar Geographics

ISSUE PURPOSE
FINAL

PROJECT NUMBER
60693986

FIGURE TITLE
Ecological Designations

FIGURE NUMBER
Figure 2



LEGEND

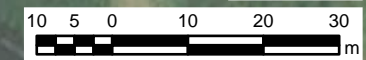
	Site
	Survey Area
<i>Fossil Habitats</i>	
	FW4 Drainage ditches
	WL1 Hedgerows
	WL2 Treelines
	WS3 Ornamental/nonnative shrub
	BL3 Buildings and artificial surfaces
	BL3 / GA2 / WS1 (hardstanding private properties)
	ED2 Spoil and bare ground
	FS1 Reed and large sedge swamps
	FW3 Canals
	GA2 Amenity grassland (improved)
	GS2 Dry meadows and grassy verges
	WD1 (Mixed) broadleaved woodland
	WD5 Scattered trees and parkland

NOTES
Copyright Government of Ireland. Licensed for re-use under the Creative Commons attribution 4.0 International Licence.
Maxar, Microsoft, Esri UK, Esri, TomTom, Garmin, FAO, NOAA, USGS

ISSUE PURPOSE
FINAL
PROJECT NUMBER
60693986
FIGURE TITLE
Habitat Survey

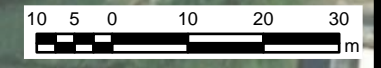
FIGURE NUMBER
Figure 3

1:1,000 @ A3





1:1,000 @ A3



Appendix B Planning applications

Table B.1. Planning search for relevant developments within 1 km of the Site.

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
SDCC	SDZ23A/0004	Adamstown, Lucan, Co. Dublin	385 dwelling units (139 houses, 70 Build-to-Rent duplex / apartments, 72 duplex / apartments and 104 apartments), ranging between two to six storeys in height comprising the following: - Total of 139 houses consisting of 102 three bedroom two storey terraced houses (House Type: O, E & F); 11 four bedroom two storey terraced houses (House Type: C); 26 four bedroom three storey terraced houses (House Type: A & B); Total of 70 Build-to-Rent duplex / apartments units consisting of 35 two bedroom units (House Type: J, L & O); 35 three bedroom units (House Type: K, M & P); Total of 72 duplex / apartment units consisting of: - 36 two bedroom units (House Type: J, L & O); 36 three bedroom units (House Type: K, M & P); Total of 104 apartment units accommodated in 2 blocks ranging from four to six storeys consisting of 48 one bedroom units (House Type: A1 & A2); 56 two bedroom units (House Type: B1 & B2); Private rear gardens are provided for all houses. Private patios / terraces and balconies are provided for all duplexes and apartments; Vehicular access to serve the development is provided off the Clonburris Southern Link Street permitted under SDCC Reg. Ref. SDZ20A/0021 and currently under construction. Pedestrian and cycle access is also provided to the Newcastle Road (R120) and to the Clonburris Southern Link Street; All associated and ancillary site development, infrastructural, hard and soft landscaping and boundary treatment works, including: - A single storey tenant amenity building (c. 170 sq.m); Areas of public open space (1.45Ha); 538 car parking spaces and 878 bicycle parking spaces (660 long-term spaces and 218 visitor spaces); Bin and bicycle stores; Plant provided at undercroft level and additional plant provided at roof level (including solar panels) of the proposed apartment blocks; 3 ESB Sub-stations; Demolition of remaining walls and hardstanding associated with a former agricultural building; The development proposed includes minor revisions to an attenuation pond, connections to water services (wastewater, surface water and water supply) and connections to permitted cycle/ pedestrian paths permitted under SDCC Reg. Ref. SDZ20A/0021 on a site (c. 8.94 Ha) in the townland of Adamstown, within the Clonburris Strategic Development Zone (Adamstown Extension). On lands generally bound by the Dublin-Cork Rail Line to the north; Hayden's Lane, the Griffeen River and the undeveloped lands of Clonburris Strategic Development Zone to the east; Lucan Pitch and Putt to the south; and Newcastle Road (R120) to the west. This site consists of Development Areas AE-S1 and AE-S2 within the Clonburris Strategic Development Zone, as prescribed by the Clonburris Strategic Development Zone Planning Scheme 2019; This application is being made in accordance with the Clonburris Strategic Development Zone Planning Scheme 2019 and related to a proposed development within the Clonburris Strategic Development Planning Scheme Area, as defined by Statutory Instrument No. 604 of 2015.	15/12/2023	260
SDCC	SD22A/0025	Takeda Ireland Limited, Grange Castle Business Park, Clondalkin, Dublin 22	Retention and continuance of the use for a further two years of the temporary gas powered generation plant, that is located to the rear of the Takeda Ireland complex, that is sited within a walled year of 2,836sq.m containing 12 generator units with associated flues (each 15m high), which was permitted initially for a period of three years under Reg Ref. SD16A/0345 and was subsequently extended for an additional period of 2 years from the 4th February 2020 under Condition no. 2 of permission granted under SD19A/0342 Vehicular access to the generation plan will remain from the permitted service road into Edgeconnex site and Grange Castle Business Park as originally permitted.	28/03/2022	294

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
SDCC	SD19A/0322	The Grange, Ballymakailly, Newcastle Road, Lucan, Co. Dublin.	Construction of 1 & 2 storey office building, c.9.43m in height providing a total GFA of 459sq.m.; provision of 11 total car parking spaces; 8 covered cycle parking spaces; the removal of the existing temporary structures, landscaping, tree planting and all associated site and infrastructural works.	05/12/2019	298
ABP	PL06S.317802	Ballymakailly, west of Newcastle Road (R120), Lucan, Co. Dublin	Construction of 2 adjoined single storey data centres with associated office and service areas with an overall gross floor area of 15,274sq.m comprising of the construction of 2 adjoined single storey data centres with a gross floor area of 12,859sq.m that will include a single storey goods receiving area / store and single storey office area (2,415sq.m) with PV panels above, located to the east of the data centres as well as associated water tower, sprinkler tank, pump house and other services; The data centres will also include plant at roof level; with 24 standby diesel generators with associated flues (each 25m high) that will be located within a generator yard to the west of the data centres; New internal access road and security gates to serve the proposed development that will provide access to 36 new car parking spaces (including 4 electric and 2 disabled spaces) and sheltered bicycle parking to serve the new data centres; New attenuation ponds to the north of the proposed data centres; Green walls are proposed to the south and east that will enclose the water tower and pump house compound; The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage; The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and Ref. SD21A/0042; The site will remain enclosed by landscaping to all boundaries; The development will be accessed off the R120 via the permitted access granted under SDCC Planning Ref. SD19A/0042 / ABP Ref. PL06S.305948 and SD21A/0042; An Environmental Impact Assessment Report (EIAR) has been submitted with this application.	Decision pending. (The associated planning references SD22A/0289 and SD21A/0042 have been granted permission). Decision due date for SD22A/0333/PL06S.317802: 21 st March 2024	300
SDCC	SD22A/0105	Ballymakailly, west of Newcastle Road (R120), Lucan, Co. Dublin	Amendments to the electrical substation compound and structures permitted under Reg. Ref. SD19A/0042 and ABP Ref. 305948-19 comprising of amendment to the layout and extent of the permitted substation compound, to include an extension of the compound area to c. 0.77 hectares; reorientation of the Gas Insulated Switchgear (GIS) substation building to a north south orientation, and associated amendments to the building footprint, layout, and elevations, providing for a two storey building with a gross floor area (GFA) of c. 1,456 sq.m; alterations to the permitted single storey Client Control Building to provide for the substitution of this structure with 5 single storey modular client control units, with a combined total GFA of c. 231 sq.m (GFA of c. 46.2 sq.m per module); associated amendments to the permitted substation access arrangements (3 gated access points provided), transformers, security fencing (to be 2.6 metres high in place of the 2.4 metre high fencing permitted), lighting, services, MV substation, parking, utility cabling, amendments to permitted landscaping and berms adjoining the substation compound and associated and ancillary works.	08/06/2022	394
SDCC	SD21A/0042	Ballymakailly, west of Newcastle Road (R120), Lucan, Co. Dublin	Construction of two single storey data centres with associated office and service areas; and three gas powered generation plant buildings with an overall gross floor area of 24,624sq.m that will comprise of the following: Demolition of abandoned single storey dwelling, remaining agricultural shed and derelict former farm building; Construction of 2 single storey data centres (12,797sq.m), both with associated plant at roof level, with 24 standby diesel generators with associated flues (each 25m high) that will be attached to a single storey goods receiving area/store and a single storey office area (2,404sq.m) located to the west of the data centres as well as associated water tower and sprinkler tank and other services; Amendments to the internal access road and omission of access to loading bay permitted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948 that include the relocation of permitted, and new, internal security gates; and new internal access roads to serve the proposed development that will provide access to 39 new car parking spaces (including 4 electric and 2 disabled spaces) and sheltered bicycle parking to serve the new data centres; The development will also include the phased development of 3 two storey gas powered generation plants (9,286sq.m) within three individual buildings and ancillary development to provide power to facilitate the development of the overall site to be	09/03/2022	421

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
			located within the south-west part of the overall site. Gas plant 1 (3,045sq.m) will contain 20 generator units (18+2) with associated flues (each 25m high) will facilitate, once operational the decommissioning of the temporary Gas Powered Generation Plant within its open compound as granted under SDCC Planning Ref. SD19A/0042/ABP Ref. PL06S.305948. Gas plant 2 (3,045sq.m) will contain 20 generator units (18+2) with associated flues (each 25m high). and, Gas plant 3 (3,196sq.m) will contain 21 generator units (19+2) with associated flues (each 25m high). These plants will be built to provide power to each data centre, if and, when required. The gas plants will be required as back up power generation once the permitted power connection via the permitted substation is achieved; New attenuation pond to the north of the site; Green walls are proposed on the southern elevation of each power plant, as well as to the northern elevation of the generator compound of the data centres, and enclosing the water tower/pump room compound, and a new hedgerow is proposed linking east and west of the site; Proposed above ground gas installation compound to contain single storey kiosk (93sq.m) and boiler room (44sq.m). The development will also include ancillary site works, connections to existing infrastructural services as well as fencing and signage. The development will include minor modifications to the permitted landscaping to the west of the site as granted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948. The site will remain enclosed by landscaping to all boundaries. The development will be accessed off the R120 via the permitted access granted under SDCC planning Ref. SD19A/0042/ABP Ref. PL06S.305948. An EPA-Industrial Emissions (IE) licence will be applied for to facilitate the operation of the gas-powered generation plant. An Environment Impact Assessment Report (EIAR) has been submitted with this application. All on a site of 22.1hectares.		
SDCC	SD19A/0042	Newcastle Road, Lucan, Co Dublin	Phased development that will include 4 single storey data halls all with associated plant at roof level; 32 standby generators with associated flues (each 15m high); associated office and service areas; service road infrastructure and car parking; ESB sub-station/transformer yard with an overall gross floor area of 17,685sq.m; temporary gas powered generation plant within a walled yard containing 19 generator units with associated flues (each 17m high) to be located to the west of the proposed data halls on a site within the townland of Ballymakailly; Phase 1, 2 single storey data halls (6,950sq.m.) with roof plant and 16 stand-by generators with associated flues (each 15m high) as well as associated water tower and pump room and other services; single storey goods receiving area/store and single storey office area (1,522sq.m.) located attached and to the north-east of the data halls; temporary gas powered generation plant with 15 generators with associated flues (each 17m high) to be located within a compound to the west of the proposed data halls; attenuation pond; two storey ESB sub-station (494sq.m) with associated transformer yard and single storey transformer building (247sq.m) within compound; Phase 2, 2 single storey data halls (6,950sq.m.) with roof plant and 16 stand-by generators with associated flues (each 15m high) as well as associated water tower and pump room and other services; single storey goods receiving area/store and single storey office area (1,522sq.m) located attached and to the east of the data halls under this Phase and attached and to the north of the offices proposed under Phase 1; 4 additional generators with associated flues (each 17m high) to be constructed within the temporary gas powered generation plant; also ancillary site works; connections to existing infrastructural services as well as fencing; signage; vehicular access off the realigned R120 to provide a new vehicular access into the site as well as internal service roads and entrance gates; car park for 39 car parking spaces (including 4 disabled car parking spaces); sheltered bicycle parking to serve the development. The development will be enclosed with landscaping to all boundaries of the overall site of 22.1ha. Application for enabling works to facilitate this development has been made under Reg. Ref. SD19A/0004. An Environmental Impact Assessment Report (EIAR) has been submitted with this application. An EPA IE licence will be applied for to facilitate the operation of Phase 2 of the permission.	05/10/2020	421
SDCC	SD22A/0289	Ballymakailly, west of Newcastle Road (R120),	The development will consist of the amendment of Condition no. 3 (ii) and 3 (iii) of the permission granted under Reg. Ref. SO21A/0042 that related to the Gas Plant of the overall permitted development only, so that these aspects of the new condition shall read as follows:	02/12/2022	423

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
		Lucan, Co. Dublin	<ul style="list-style-type: none"> Condition no. 3(ii): Within four (4) years from the date the first Gas Plant commences operation, the applicant or operator shall undertake a review with GNI of the ability to serve the Gas Plant with green gas and / or hydrogen (or similar fuels) shall be Investigated and reported to the Planning Authority. Any ability for the Gas Plant to be operated with green gas and/ or hydrogen (or similar fuels) shall be implemented within an agreed timeline agreed with GNI. <p>Condition no. 3(iii): If the applicant receives a firm offer from Eirgrid under which the Gas Plant is not required, and the connection has been realized with capacity onsite from Eirgrid, then the Gas Plants shall be removed from the entire site within a year of the ceasing of operation. The nature and extent of the permitted Gas Plants, or any other element of the parent permission granted under Reg. Ref. SD21A/0042 will otherwise not be amended by this application. An EPA IE licence will be applied for to facilitate the operation of the Gas Plant that is subject of this amendment application.</p>		
SDCC	SD22A/0303	Grange Castle Business Park, Grange Castle, Dublin 22	Construction of a Volatile Organic Compound (VOC) Abatement system comprising of a thermal oxidiser (TO), associated plant equipment and scrubbers positioned on a bunded concrete plinth with a maximum single stack height of 12m along with two access platforms at 2.5 high and 5.0m high used for maintenance only; The system is set within a 489sq.m (including a bunded area of 213sq.m) concrete compound enclosed by a 2.4m high paladin weldmesh black fence to match the existing utilities perimeter fence; 135sq.m single storey utilities workshop will sit adjacent to the Volatile Organic Compound (VOC) abatement system compound with associated hardstanding area and soakpit; 55m (L) x 3.2m (W) x 5.6m (H) pipe rack extension with the addition of a second tier extension 118.6m (L) X 3.2M (W) 1.2m (H) to the existing pipe rack is required to service the new VOC abatement system compound; a contractor's compound 3,420sq.m comprising single stacked portacabins, workshops, parking for 30 contractors, materials delivery and set down area; the compound will be enclosed by a 2.4m tall paladin weldmesh black fence; modifications to the existing internal access road will include the addition of a new access road and footpath around the VOC abatement system compound and utilities workshop; a permanent pedestrian crossing including associated signage at the existing access road giving access between the contractor's compound and the VOC abatement system compound; modifications to the existing site lighting, signage, surface water, foul and process wastewater drainage, hard and soft landscaping including a 3m high planted berm to the north of the contractor's compound; An EIAR (Environmental Impact Assessment Report) will be submitted with the application; this application relates to development which comprises an activity requiring an Industrial Emissions Licence in accordance with the First Schedule of the EPA Act 1992 as amended.	07/09/2022	427
SDCC	SD23A/0301	Gollierstown and Milltown (west of Grange Castle Business Park & The Adamstown Road (R120)), Newcastle, Dublin	The proposed development will consist of the construction of five logistics / warehousing units (Units 1 - 5) with associated office accommodation, service yards, ancillary structures/areas, and substations. The overall floor area of the proposed logistics / warehousing units is c. 56,932 sq.m (Gross Internal Area (GIA)) with a total of c. 4,336 sq.m of office space. See following breakdown of each unit: Unit 1 will comprise GIA c. 10,432 sq.m (including c. 579 sq.m of associated office space) and measures c. 17.9m from finished floor level (FFL) to roof ridge; Unit 2 will comprise GIA c. 18,065 sq.m (including c. 1,005 sq.m of associated office space) and measures c. 18.4m from FFL to roof ridge; Unit 3 will comprise GIA c. 6,325 sq.m (including c. 579 sq.m of associated office space) and measure c. 17.4m from FFL to roof ridge; Unit 4 will comprise GIA c. 8,762 sq.m (including c. 484 sq.m of associated office space) and measures c. 17.6m from FFL to roof ridge; Unit 5 will comprise GIA c. 13,348 sq.m (including c. 1,689 sqm of associated office space) and measures c. 17.8m from FFL to roof ridge; Access to the site will be from the existing roundabout to the south of the site; Provision of no. 419 car parking spaces and 172 bicycle spaces to serve the proposed development; Associated works for the diversion of the existing foul sewer within the site; The provision of attenuation basins / wetlands across the site; Associated works for re-routing of the existing ESB overhead wires which traverse the site to underground cables within the site; The formation of plateaus on the site with surplus excavated material to allow for the future Phase 2	15/01/2024	438

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
			development and; All ancillary landscaping, boundary treatments, internal roads and roundabout, cycle / pedestrian paths, associated infrastructure, and site development works to support the development		
SDCC	SD23A/0151	Ballymakailly, west of Newcastle Road (R120), Lucan, Co. Dublin	<p>Permission for development at this site within the townland of Ballymakailly to the west of the Newcastle Road, Lucan, Co. Dublin. The development will consist of amendments to the permitted development as granted under SDCC Planning Ref. SD19A/0042 that will include:</p> <ul style="list-style-type: none"> Reduction in the number of back-up generators, flues and other related plant from 32 to 24 within the permitted generator compound located to the west of the data centre granted under SDCC Planning Ref. SD19A/0042; and <p>Repositioning of the 24 no. back-up generators, flues and other plant within the permitted generator compound.</p>	25/08/2023	580
SDCC	SD19A/0004	Ballymakailly, Lucan, Co. Dublin	Enabling works to facilitate the future development of the site; topsoil strip and a cut and fill operation across the site; temporary construction access will be created off the R120 to facilitate the works within the townland of Ballymakailly to the west of the Newcastle Road (R120).	16/04/2019	591
SDCC	SD20A/0147	Grange Castle Business Park, Nangor Road, Clondalkin, Dublin 22	Construction of P3 Phase II expansion of the existing P3 biopharma production facility which includes the construction of a circa 2,155sq.m, two storey biopharma production facility to a maximum height of circa 14.9m to be located to the south of the existing P3 building; single storey administration extension of circa 210sq.m to a maximum height of 4m to the north of the existing P3 building and internal modifications to the existing P3 building in addition to all associated site works including delivery area; courier pick up/drop off area with 5 parking spaces (including 1 accessible parking space and 1 E-car space); extension to existing external utilities yard (circa 485sq.m) for 3 heat pumps and other ancillary equipment; new internal site circulation road and re-alignment of existing circulation road; 48 additional car parking spaces (including 3 accessible parking spaces and 5 E-car spaces); 24 covered bicycle stands, hard and soft landscaping and external lighting; there will be temporary site entrance and associated temporary access road located to the south east of the site during the construction phase all on 3.68 Hectare application site located within the Takeda Ireland facility at Grange Castle Business Park; an EIAR (Environmental Impact Assessment Report) is submitted with the application and relates to development comprising of an activity which requires and Industrial Emissions Licence in accordance with the First Schedule of the EPA Act 1992 as amended.	08/10/2020	600
SDCC	SD15A/0061	Grange Castle Business Park, Clondalkin, Dublin 22	10-year permission for the construction of a 115MW Peaker Power Plant in a single storey building with a mezzanine level office and electrical control area. This building has a platform height of 17.52m, 7 shafts with a height of 20.74m and 2 stacks with a height of 25m. The development also includes water and fuel tanks with associated pump houses; 1 building consisting of a compact workshop and warehouse and a security area, with a height of 6.5m; site access and entrance gates; internal roadways and footpaths; security fencing; 6 car parking spaces (1 of these is accessible) and appropriate landscaping all on a site of 1.23 hectare site in the north of Grange Castle Business Park. The total gross floor area of the facility is approx. 3,583sq.m. This application relates to development which comprises of an activity which requires an Industrial Emissions Licence in accordance with the First Schedule of the EPA Act 1992 as amended.	22/06/2015	673
SDCC	SD23A/0079	Grange Castle Business Park, Nangor Road, Clondalkin, Dublin 22	Alterations to a previously approved development (Reg. Ref. SD15A/0061 and Reg. Ref. SD16A/0398) which relates to a 10-year permission for the construction of a Peaker Power Plant in a single storey building with a mezzanine level, together with associated plant equipment including water & fuel tanks. The alterations to the previously approved development (Reg. Ref. SD15A/0061 & SD16A/0398) include the following: (i) alterations to the previously approved building within the eastern portion of the site as follows: (a) an increase in the overall footprint of the building to the north-west to include office space, and staff facilities at ground floor level; and to the north-east to include a boiler room at ground floor level; (b) revised roof footprint to the rear of the building, with the roof being lowered to the rear; (c)	14/06/2023	673

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
			relocation of stair cores and updates to building elevations, including the introduction of additional glazing; (d) amendments to the external open service yard to the north of the building including the removal of the previously approved transformer rooms, addition of containerised plant and minor alterations to the location of shaft towers; (e) a minor increase in the height (by 600mm) of the screen to the service yard. Alterations to the western portion of the site include; (ii) minor amendments to the positioning of the internal roadway; (iii) amendments to the tank bund area and tank arrangement to the west of the site, and the addition of contained plant and a pump house building; (iv) minor amendment to the location of the approved tanker unloading area; (v) relocation of car parking spaces from the south of the site to the north of the main bund areas, with the exception of the approved accessible parking space; (vi) provision of a gas skid & support structure to the south-west of the site; (vii) provision of an enlarged plant compound to the west of the bund area and relocation of transformers to this compound; (viii) revisions to the positioning and an increase in size of the approved pipe bridge to align with services; (ix) provision of a new bicycle parking shelter comprising 8 no. parking spaces; (x) amendments to soft landscaping to accommodate the revised layout and; (xi) drainage, boundary treatments, site lighting, EV car charging ports; and all associated site development and ancillary works necessary to facilitate the development. The capacity of the plant will be 115MW as approved under Reg. Ref. SD15A/ 0061. This application relates to development which comprises of an activity which requires an Industrial Emissions Licence in accordance with the First Schedule of the EPA Act 1992 as amended.		
ABP	PL06S.314272 (SD21A/0359)	Hayden's Lane, Adamstown, Lucan, Co. Dublin	Construction of a residential development comprising 3 three to five storey blocks of 74 apartments (20 one bed, 48 two bed and 6 three bed) all with associated private balconies/terraces to the north/south/east/west elevations; vehicular and pedestrian access from Hayden's Lane to the north west of the site and closure of the second existing vehicular entrance at south west of site; pedestrian access from Griffeen Park to the south east of the site; provision of car and cycle parking, public and communal spaces, bin stores and all associated site development and clearance works, landscaping, boundary treatments and other servicing works.	Pending decision. Decision date overdue	809
SDCC	SDZ21A/0007	Gollierstown, Adamstown, Lucan, Co Dublin	Phase II of the Adamstown District Centre and consists of 17,764sq.m (gross floor area, including car park and storage) of residential development to be constructed in 2 buildings ranging in height from 4 to 9 storeys; a total of 185 apartments, comprising 82 1-bedroom apartments, 102 2-bedroom apartments and 1 3-bedroom apartment; ancillary resident's amenity rooms and facilities are also provided at the ground floor level of Block G1; all apartments are provided with private open space in the form of balconies or gardens. The proposed block description is as follows: Block G1 (c. 6,708sq.m gross floor area, 5,420sq.m net floor area); 4-9 storeys, with a total of 86 apartments (38 1-bedroom apartments and 48 2-bedroom apartments); resident's amenity area (231sq.m) including lounge and gym at ground floor, with direct access to semiprivate communal open space; private front gardens are provided on the west elevation for all ground floor units; private front gardens are also provided for first floor units on the east elevation, with access onto a communal open space between Blocks G1 and G2 above the podium; ancillary plant, storage, waste and internal bicycle parking rooms provided at ground floor level; Block G2 (c.7,808 sq. m gross floor area, 6,480 sq. m net floor area): 4-5 storeys with 1 no. setback storey and a total of 99no. apartments (44 1-bedroom apartments, 54 2-bedroom apartments and 1 3-bedroom apartment); private front gardens are provided on the east and south elevations for all ground floor units; private front gardens are also provided for first floor units on the west elevation, with access onto a communal open space between Blocks G1 and G2 above the podium; ancillary plant, storage, waste and internal bicycle parking rooms provided at ground floor level; the development provides a total of 1,249sq.m landscaped public open space, principally in 2 areas - to the north and to the south west of the site; a total of 1,478sq.m resident's communal open space is provided at ground floor level and at first floor level on a podium above the car parking area, with a further 486sq.m. of communal open space in the form of buffers and planted areas; a total of 93 car parking spaces are provided for this development, with 10 at street level and 83 beneath the podium between Blocks G1 and G2; a further 10 car parking spaces are to be provided at street level, but are reserved for use by a future phase of development. 225 bicycle parking spaces are	13/09/2021	899

Planning Authority	Ref. no.	Address	Summary of Proposed Development	Grant date	Distance from Site (approx.) (m)
			provided, including 185 covered, stacked bicycle parking spaces and 40 'Sheffield Stands' in the public realm; new Toucan Crossing at Station Road and other roads infrastructure across the development including insertion of tactile paving, raised tables, loading bay and roads signage; photovoltaic panels are provided on the roof of both Blocks G1 and G2, as well as lift over runs and plant at roof level; the development also includes the provision of ancillary site development, boundary treatments and landscape works; the application site incorporates elements of the Adamstown Station Development Areas within the Adamstown Strategic Development Zone; this application is being made in accordance with the Adamstown Planning Scheme 2014, as amended, and relates to a proposed development within the Adamstown Strategic Development Zone Planning Scheme Area, as defined by Statutory Instrument No. 272 of 2001 on lands bounded generally by Adamstown Avenue and the Stratton housing development to the North, by Station Road, Adamstown Train Station and the Dublin to Kildare railway line to the South, by Adamstown Park to the East, and to the West by lands currently undeveloped, but benefitting from Planning Permission Reg. Ref. SDZ20A/0008, as amended by Reg. Ref. SDZ20A/0016 and SDZ20A/0018.		
SDCC	SD15A/0084/EP	'The Bungalow', Hayden's Lane, Lucan, Co. Dublin.	Demolition of an existing single storey house and garage (145.30sq.m) and the erection of 6 no. 2 storey houses with converted attics (140sq.m each) in 2 terraced blocks of 3 houses, with dormer windows to the front, 'Velux' windows to the rear and associated site development and drainage works including a new vehicular access for each house fronting onto the public roadway and new front boundary wall and brick piers.	07/12/2020	924
SDCC	SD20A/0283	Grange Castle Business Park, Nangor Road, Clondalkin, Dublin 22	Demolition of existing single storey vacant house, garage and outhouse (total gross floor area (GFA) c.291.2sq.m) and removal of existing temporary construction car park; Construction of a single 1-4 storey Central Administration Building and 2 2-storey (with mezzanine) data centres (DUB14 & DUB15) all to be located west of data centres DUB9, DUB10, DUB12 & DUB13 within the MS campus; The Central Administration Building (c.6.03m to c.19.85m high) will comprise central office administration, with staff cafeteria, staff gym and reception (GFA c.3,520sq.m), with provision of PV panels on the roof; each data centre (c.15.6m high to parapet height and c.18.65m to top of roof plant) will include data halls, admin blocks (comprising offices, canteen, loading dock, storage and ancillary areas) and a variety of mechanical and electrical plant areas/structures including Modular Electrical Rooms (MERs), battery rooms and transformer areas. GFA of DUB14 is c.28,072sq.m and GFA of DUB15 is c.28,173sq.m (c.56,246sq.m in total); DUB14 will also include 21 diesel generators and associated sub-stations (E-houses) and 11 mechanical flues (each c.30.75m high); Provision of a gas generator compound (to serve DUB15) containing 20 generators, 5 E-houses and 5 flues (c.25m max height); Provision of a Gas Networks Ireland gas skid including 3 kiosk buildings; Expansion of existing electrical sub-station compound (originally granted under SD07A/0632) to provide 3 additional transformer bays, 3 E-houses and 1 control room, 2 auxiliary transformers; 2 sprinkler tank and pump house areas, 1 additional rainwater harvesting plant; Provision of 168 permanent car parking spaces and 40 cycle parking spaces; Provision of additional western access to the MS campus (to serves the Central Administration Building) from the Business Park estate road (including bridge over the Griffeen River) with existing temporary access to be extinguished; Physical integration with the remainder of the existing MS campus (including internal access roads and landscaping) with associated modifications to the western boundary of the DUB09/DUB10/DUB12/DUB13 data centre development as permitted under SD16A/0088; Provision of a new temporary construction car park (with 802 car spaces, shuttle bus stop and shelter) on site north of the main entrance to the business park; Total gross floor area of the development will be c.59,766sq.m; All associated site development works, drainage and services provision, landscaping, boundary treatments (including security fencing) and associated works; An Environmental Impact Assessment Report (EIAR) has been submitted with this application; The application relates to a development which comprises an activity requiring an IE licence.	29/03/2021	978

