SCOTT CAWLEY

Appropriate Assessment Screening Report,

Galway City Council Proposed Development at Dyke Road, Terryland, Co. Galway

prepared for Land Development Agency

on behalf of Galway City Council

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This report has been prepared by Scott Cawley Ltd. in accordance with the particular instructions and requirements of our agreement with the Client, the project's budgetary and time constraints and in line with best industry standards. The methodology adopted and the sources of information used by Scott Cawley Ltd. in providing its services are outlined in this report. The scope of this report and the services are defined by these circumstances.

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The conclusions presented in this report represent Scott Cawley Ltd.'s best professional judgement based on review of site conditions observed during the site visit (if applicable) and the relevant information available at the time of writing. Scott Cawley Ltd. has used reasonable skill, care and diligence in compiling this report and no warranty is provided as to the report's accuracy.

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1 Introduction

1 This report, which contains information required for the competent authority to undertake a screening for Appropriate Assessment (AA), has been prepared by Scott Cawley Ltd., on behalf of the applicant, Galway City Council. It provides information on, and assesses the potential for in view of best scientific knowledge for, the Proposed Development site to impact on the Natura 2000 network (hereafter referred to as European sites)[1]. The Proposed Development site consists of the construction of 219 residential units and a childcare facility with associated car parking, bicycle parking, public and communal open spaces, and all ancillary works.

2 An AA is required if significant effects on European sites arising from a Proposed Development cannot be ruled out at the screening stage, either alone or in combination with other plans or projects. It is the responsibility of the competent authority to make a decision as to whether or not the Proposed Development site is likely to have significant effects on European sites, either individually or in combination with other plans or projects.

3 For the reasons set out in detail in this AA Screening Report, a Stage Two Appropriate Assessment of the Proposed Development site is required in this instance as it cannot be concluded, in view of best scientific knowledge and on the basis of objective information, that the Proposed Development site, either individually or in combination with other plans or projects, will not have a significant effect on the following European site(s): Lough Corrib SAC, Lough Corrib SPA, Galway Bay Complex SAC and Inner Galway Bay SPA.

2 Methodology

2.1 Guidance

4 This Appropriate Assessment Screening Report has been prepared with regard to the following guidance documents, as relevant:

- OPR *Practice Note PN01. Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator, 2021)
- *Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities*. (Department of Environment, Heritage and Local Government, 2010 revision)
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities*. Circular NPW 1/10 & PSSP 2/10
- *Assessment of Plans and Projects in Relation to Natura 2000 sites: Methodological Guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC* (European Commission, 2021)
- *Communication from the Commission on the precautionary principle* (European Commission, 2000), and

[1] The Natura 2000 network is a European network of important ecological sites, as defined under Article 3 of the Habitats Directive 92/43/EEC, which comprises both Special Areas of Conservation and Special Protection Areas. Special Areas of Conservation are sites hosting the natural habitat types listed in Annex I, and habitats of the species listed in Annex II, of the Habitats Directive, and are established under the Habitats Directive itself. Special Protection Areas are established under Article 4 of the Birds Directive 2009/147/EC for the protection of endangered species of wild birds. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats.

In Ireland these sites are designed as European sites - defined under the Planning Acts and/or the Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (European Commission, 2019); and
- EC (2013) *Interpretation Manual of European Union Habitats*. Version EUR 28. European Commission.

2.2 Assessment Methodology

5 The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if an Appropriate Assessment is required, documented screening is required. Screening identifies the potential for effects on the conservation objectives of European sites, if any, which would arise from a proposed plan or project, either alone or in combination with other plans and projects (i.e. likely significant effects).

6 Significant effects on a European site are those that would undermine the conservation objectives supporting the favourable conservation condition of the Qualifying Interest (QI) habitats and/or the QI/Special Conservation Interest (SCI) species of a European site(s).

7 Screening for Appropriate Assessment involves the following steps:

8 If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European sites as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there is no requirement to undertake a Stage Two Appropriate Assessment.

9 In establishing which European sites are potentially at risk (in the absence of mitigation) from the proposed development, a source-pathway-receptor approach was applied. In order for an impact to occur, there must be a risk enabled by having a source (e.g. water abstraction or construction works), a receptor (e.g. a European site or its QI(s) or SCI(s)[2]), and a pathway between the source and the receptor (e.g. pathway by air for airborne pollution, or a pathway by a watercourse for mobilisation of pollution). For an impact to occur, all three elements must exist; the absence or removal of one of the elements means there is no possibility for the impact to occur.

10 The identification of source-pathway-receptor connection(s) between the Proposed Development and European sites essentially is the process of identifying which European sites are within the Zone of Influence (ZoI) of the Proposed Development, and therefore potentially at risk of significant effects. The ZoI is the area over which the Proposed Development could affect the receiving environment such that it could potentially have significant effects on the QI habitats or QI/SCI species of a European site, or on the achievement of their conservation objectives[3].

11 The identification of a source-pathway-receptor link does not automatically mean that significant effects will arise. The likelihood for significant effects will depend upon the characteristics of the source (e.g. extent and duration of construction works), the characteristics of the pathway (e.g. direction and strength of prevailing winds for airborne pollution) and the characteristics of the receptor (e.g. the sensitivities of the European site and its QIs/SCIs).

12 The 'likely significant effects' test is based on the precautionary principle[4]. The precautionary principle means that, based on the most reliable available information, where there is uncertainty or doubt as to the absence of significant effects, the project cannot be screened out and an appropriate assessment must be carried out.

2.3 Desktop Data Review

13 The desktop data sources used to inform the assessment presented in this report are as follows (accessed in March 2025):

- Online data available on European sites and protected habitats/species within 2km of the Proposed Development as held by the National Parks and Wildlife Service (NPWS) from www.npws.ie[5], including conservation objectives documents. The use of a 2km radius for desk studies is frequently applied to evaluate potential impacts on protected species, habitats, and the surrounding landscape. A 2km radius allows for the capture of relevant data on species that may

[2] The term Qualifying Interest is used when referring to the habitats or species for which an SAC is designated; the term Special Conservation Interest is used when referring to the bird species (or wetland habitats) for which an SPA is designated.

[3] As defined in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2024)

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

The guidance document *Communication from the Commission on the Precautionary Principle* (European Commission, 2000) notes that the precautionary principle "*covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection*"..

[5] The following SAC and SPA GIS boundary datasets are the most recently available at the time of writing: SAC_ITM_2024_12, SPA_ITM_2024_01

use habitats in the area surrounding a Proposed Development site. This distance is useful for species with broader ranges, like certain bird or mammal species, and also helps identify potential corridors or linkages between habitats. It allows for the consideration of species that may be present in the broader landscape while focusing on those that are most likely to be impacted by activities within the development area.

- Online data available on protected species as held by the National Biodiversity Data Centre (NBDC) from www.biodiversityireland.ie
- Information on the surface water network and surface water quality in the area available from www.epa.ie
- Information on groundwater resources and groundwater quality in the area available from www.epa.ie and www.gsi.ie
- Ordnance Survey of Ireland mapping and aerial photography available from www.osi.ie
- Information on the location, nature and design of the Proposed Development site supplied by the applicant's design team
- Information on the conservation status of birds in Ireland from Birds of Conservation Concern in Ireland 4 (Gilbert *et al*., 2021)
- Hydrological and Hydrogeological Risk Assessment Report for Proposed Development at Dyke Road, Terryland, Co. Galway (Enviroguide Consulting, 2025)
- N6 Galway City Ring Road Project (GCRR) (Bord Pleanála Case reference: MA07.302885) submitted 2014

2.4 Baseline Surveys

14 Baseline ecological surveys were undertaken as necessary to inform environmental assessments of the Proposed Development. This section describes all ecological surveys which are relevant to and have informed the assessment of likely significant effects on European sites, presented in this report. Surveys were initially carried out between July 2023 and May 2024 and additional surveys were carried out between January 2025 and March 2025. Table 1 lists the survey details.

Table 1 Ecological Surveys, Survey Dates and Surveyors

Survey	Survey Date(s)	Surveyor(s)
Multidisciplinary survey – habitats, flora and fauna (excluding bat surveys)	17th July 2023 5th March 2025 – verification survey	Scott Cawley Ltd
Wintering bird surveys	March 5th 2024 and March 13th 2024 28th January 2025, 18th February 2025 and 5th March 2025	Scott Cawley Ltd.
Breeding bird survey	27th March 2024, 18th April 2024, 29th May 2024	Scott Cawley Ltd.
Bat activity transects	8th August 2023 and 22nd August 2023	Scott Cawley Ltd.

2.4.1 Habitats and Flora Survey

15 A habitat survey of the Proposed Development was undertaken on the 17th of July 2023, following the methodology described in *Best Practice Guidance for Habitat Survey and Mapping*[6]. All habitat types were classified using the *Guide to Habitats in Ireland*[7], and recording any species of conservation interest. Vascular and bryophyte plant nomenclature generally follow that of *The National Vegetation Database*[8], having regard to more recent taxonomic changes to species names after *the New Flora of the British Isles*[9] and the British Bryological Society's *Mosses and Liverworts of Britain and Ireland: A Field Guide*[10]. A verification site walkover was carried out on the 5th of March 2025 to ensure there were no changes in habitats and flora within the site.

2.4.2 Terrestrial Mammals (excluding Bats)

16 A terrestrial fauna survey was undertaken on the 17th of July 2023 by Scott Cawley Ltd. The presence/absence of terrestrial fauna species were surveyed through the detection of field signs such as tracks, markings, feeding signs, and droppings, as well as by direct observation. The habitats on site were assessed for signs of usage by protected/red-listed fauna species, and their potential to support these species. Surveys included checks for the presence of badger setts and otter holts within and adjacent to the subject lands, and to record any evidence of use. A verification site walkover was carried out on the 5th of March 2025, confirming land use and habitats are unchanged surveying for any evidence of mammal presence within the Proposed Development site.

2.4.3 Bats

17 A ground-level assessment was conducted to evaluate the suitability of buildings and vegetation within the Proposed Development site for supporting roosting bats and their potential importance for commuting and foraging bats. This assessment was based on guidelines from "Bat Surveys for Professional Ecologists: Good Practice Guidance" (Collins ed., 2016), as detailed in Table 2. The evaluation included inspections of buildings and trees for potential roost features (PRFs), looking for signs of bats such as staining at roost entrances, droppings, carcasses, and insect remains.

18 Two activity surveys were completed on the 8th and 22nd of August 2023 and covered the Proposed Development as well as the surrounding area to capture the adjacent industrial area, part of the Terryland Forest Park that borders the site, as well as the surrounds of the amenity grassland across the road alongside the walkway of the River Corrib.

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

[7] Fossitt, J.A. (2000) A Guide to Habitats in Ireland. Heritage Council, Kilkenny.

[8] Weekes, L.C. & FitzPatrick, Ú. (2010) *The National Vegetation Database: Guidelines and Standards for the Collection and Storage of Vegetation Data in Ireland.* Version 1.0. Irish Wildlife Manuals, No. 49. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

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

[10] Atherton, I., Bosanquet, S. & Lawley, M. (2010) *Mosses and Liverworts of Britain and Ireland: A Field Guide*. Latimer Trend & Co., Plymouth.

Table 2 Guidelines for assessing the potential suitability of subject lands for bats, based on the presence of habitat features within the landscape, applied according to professional judgement. (Taken from Collins (2016))[11]

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure or tree with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, treelined watercourses and grazed parkland. Site is close to and connected to known roosts.

[11] The newest edition of the guidelines was released in September 2023 – Collins, J. (2023*) Bat Surveys for Professional Ecologists: Good Practice Guidelines 4th Edition*. The 2016 edition of guidelines was used at the time of surveys and guidance followed is still relevant.

2.4.4 Wintering Birds

19 A full wintering bird survey was not conducted due to the urban nature of the site, which lacks suitable habitats for wintering birds. However, there are suitable winter bird habitats approximately 15m from the site along the River Corrib and in the open grassland areas along Dyke Road.

20 During the initial review, the site was deemed unsuitable due to the absence of appropriate habitat within the Proposed Development area. Additionally, the adjacent parkland offers limited suitable habitat, as it comprises a small area with a heavily trafficked walkway running through its centre and directly opens onto Dyke Road.

21 To assess the presence of wintering birds within the Proposed Development site, two wintering bird counts were undertaken on the 5th and 13th of March 2024. An additional three wintering bird surveys were conducted on the 28th of January 2025, 18th of February 2025 and 5th of March 2025. Surveys were completed by Sorcha Shanley using a methodology based on the "*Bird Monitoring Methods - A Manual of Techniques for Key UK Species".* The study area covered the Proposed Development and was surveyed visually using binoculars/scope from a vantage point at the edge of the study area followed by a walkover of the area to identify birds which may not be visible from a distance and evidence of usage by wildfowl such as swans or geese (e.g. droppings). Birds were identified by sight and general location and activity were recorded using the British Trust for Ornithology (BTO) species and activity codes.

2.4.1 Breeding Birds

22 Breeding bird surveys were undertaken on the 27th of March 2024, 18th of April 2024 and the 29th of May 2024 by Sorcha Shanley using a methodology adapted from the *Bird Monitoring Methods - A Manual of Techniques for Key UK Species* [12]. Three surveys are considered sufficient to determine the potential presence or absence of breeding birds on a site with low habitat quality. In line with the *Bird Survey Guidelines for assessing ecological impacts*[13], the need for breeding bird surveys is informed by the habitat type and its capacity to support breeding birds. The Proposed Development site is a car park composed entirely of built land with minimal natural habitat features, which limits its ability to support breeding bird populations. While some species may use built urban spaces, it is unlikely that the site would support important populations of species of conservation concern or those dependent on specific habitats (e.g., woodland or wetland species). The verification walkover on the 5th of March 2025 confirmed no change in habitats at the site. The study area covered the Proposed development. Lands within the study area were slowly walked in a manner allowing the surveyor to identify any birds within or directly adjacent to the Proposed Development site. Birds were identified by sight and song, and general location and activity were recorded using the British Trust for Ornithology (BTO) species and activity codes.

3 Provision of Information for Screening for Appropriate Assessment

23 The following sections provide information to facilitate the Appropriate Assessment screening of the Proposed Development to be undertaken by the competent authority.

24 A description of the Proposed Development and the receiving environment is provided to identify the potential ecological impacts. The environmental baseline conditions are discussed, as relevant to the assessment of ecological impacts where they may highlight potential pathways for impacts associated with the Proposed Development to affect the receiving ecological environment (e.g. hydrogeological and hydrological data).

[12] Gilbert, G., Gibbons, D.W. & Evans, J. (1998) *Bird Monitoring Methods - A Manual of Techniques for Key UK Species*. RSPB: Sandy

[13] Bird Survey & Assessment Steering Group. (2025) *Bird Survey Guidelines for assessing ecological impacts*, https://birdsurveyguidelines.org

25 The potential impacts are examined in order to define the potential zone of influence of the Proposed Development on the receiving environment. This then informs the assessment of whether the Proposed Development will result in significant effects on any European sites; i.e. affect the conservation objectives supporting the favourable conservation condition of the European site's QIs or SCIs.

3.1 Description of the Proposed Development

26 The overall masterplan aims to deliver a three-phase development, Galway City Council (GCC) and the LDA propose to apply for approval of development of the first phase of development. It is not currently known when the second and third phases, which aim to deliver mixed use development and additional residential use, will be brought forward for planning.

27 The proposal will consist of the construction of a new residential development of 219 no. apartment units and a childcare facility (approximately 241 sq m) in the form of 1 no. new residential block (5 - 9 storeys over lower ground floor level) with associated car parking, bicycle parking, public and communal open spaces, and all ancillary works on a site area of 1.144 ha (Figure 2).

28 The development will provide for:

- 219 no. residential apartment units (109 no. 1-bedroom units, 100 no. 2-bedroom units and 10 no. 3-bedroom units) each with an associated private open space area in the form of a balcony/terrace.
- A new raised pedestrian boardwalk along the western elevation of the building.
- Open Space (approximately 2778 sqm) is proposed in the form of (a) public open space (approximately 1,183 sqm) to the west of the proposed building fronting on to Dyke Road accommodating outdoor seating, planting, a sunken garden and pedestrian pathways and connections; and (b) communal open space (approx. 1,065 sqm) to the east of the proposed building in the form of a courtyard including outdoor seating, planting, a children's play area and outdoor sports equipment.
- A childcare facility (approximately 241 sqm) with dedicated external play area (approximately. 60 sqm) at ground floor level.
- A total of 33 no. car parking spaces at surface level to include 2 no. accessible spaces and 2 no. set down / drop off spaces to serve the childcare facility.
- A total of 455 no. bicycle parking spaces to include 330 no. standard spaces, 100 no. visitor spaces and 25 no. cargo bicycle spaces all at surface / lower ground floor level.
- Vehicular access is proposed via Dyke Road at 2 no. locations (to the north west and south west of the site). Pedestrian and Cyclist access is also delivered throughout the site via Dyke Road and includes a pedestrian crossing at Dyke Road. Pedestrian / cyclist connections to adjoining development to the north east and south east are also delivered.
- The proposal also provides for a further vehicular access point to the south of the main development site to facilitate new access to the existing southern car park. A total of 10 no. of car parking spaces are removed with 158 no. car parking spaces remaining at this location.
- 2 no. telecommunications lattice towers (overall height 6.45 m and 7.67 m) affixed to the rooftop supporting 9 no. 2m 2G/3G/4G antennas; 9 no. 0.8m 5G antennas; 6 no. 0.3m microwave transmission links; together with all associated telecommunications equipment and cabinets

29 The Proposed Development will also provide for all associated site development works, infrastructure, excavation and clearance works including decommissioning the existing Black Box Theatre waste water pumping station and providing a new pumping station complete with emergency storage, all boundary treatment, public lighting, internal roads and pathways, ESB substations, switch room, water tank rooms, storage room, meter rooms, sprinkler tank room, parcel stores, comms room, bin storage, bicycle stores, hard and soft landscaping, play equipment, below ground attenuation tanks, nature based SUDs features,

green roofs, roof plant, site services and connections for foul drainage, surface water drainage and water supply.

Surface water

30 As documented in the Infrastructure Report (AECOM, 2025)[14], the Proposed Development will include the installation of a new surface water piped gravity network which will discharge to the existing 525mm diameter concrete pipe which runs from south to north along the western boundary of the site and ultimately discharges to the Terryland Stream located approximately 130m north of the site. It will also divert the surface water pipe running through the site which serves the retail development on the Headford Road before reconnecting to the existing the existing 525mm diameter concrete pipe. Surface water will be managed in accordance with the principles and objectives of SuDS to treat and attenuate water prior to discharging offsite.

Foul Water

31 As part of the Proposed Development it is proposed to relay the gravity foul sewer serving the Black Box Theatre and install a new gravity sewer network to serve the Proposed Development. The existing wastewater pumping station (WWPS) that serves the Black Box Theatre is to be decommissioned and a new WWPS will be constructed.

32 The new WWPS has been positioned based on the flood extents within the site and to maximize the separation from buildings. The existing 150mm rising main serving the existing WWPS is to be retained and reused. Uisce Éireann (UÉ) have confirmed that a 20m upgrade of a 150mm diameter sewer from Dyke Road to Wood Quay will be required. As documented in the Infrastructure Report (AECOM, 2025), the UÉ Confirmation of Feasibility (CoF) dated the 26th of June 2024 notes that the foul water connection is feasible subject to infrastructure upgrades by UÉ. These upgrades will be undertaken by UÉ prior to any connections from the Proposed Development.

[14] AECOM (2025a) Phase 1 - Corrib Causeway - Dyke Road Infrastructure Report.

Figure 1 Red line boundary for phase 1 of the Proposed Development.

3.2 Overview of the Receiving Environment

3.2.1 European sites

33 The Proposed Development is not within any European site, however the nearest European site to the Proposed Development is Lough Corrib SAC; *c*. 15m to the west (see Figure 2). The Corrib river which forms part of the Lough Corrib SAC flows along the western side of the development and the following European sites in Galway Bay lie *c.* 700m downstream: Inner Galway Bay SPA, Galway Bay SAC.

34 There is no direct surface water hydrological link between the Proposed Development site and Lough Corrib SAC, however surface water drains from the site into the River Corrib and European sites downstream.

35 All of the European sites present in the vicinity of the Proposed Development are shown on Figure 2. The QIs/SCIs of the European sites in the vicinity of the Proposed Development are provided in Appendix I.

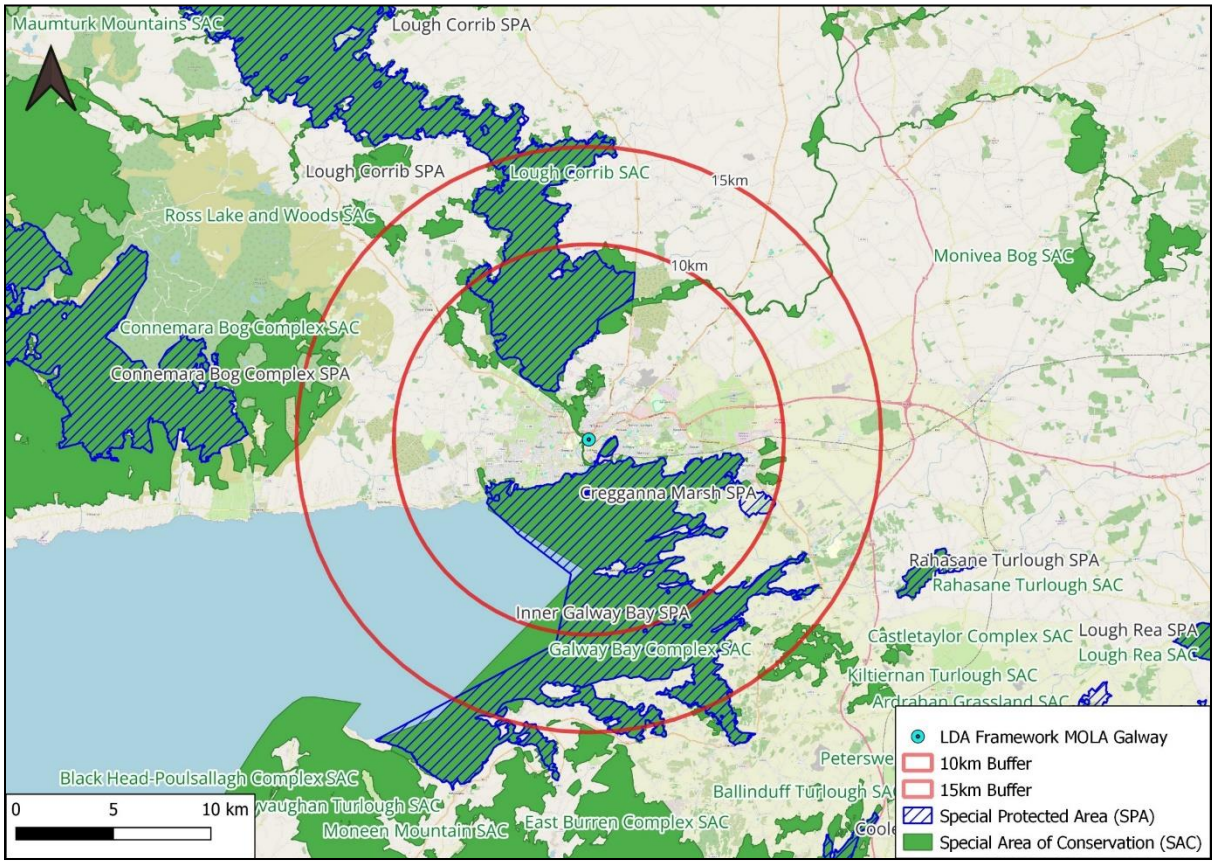

Figure 2 European sites in the vicinity of the Proposed Development

3.2.2 Habitats

36 The Proposed Development site is characterised by buildings and urban development, as well as some recolonising bare ground. The development site does not contain any habitats for which any of the listed European sites have been designated. Based on the desk study and site walkover, they do not contain any suitable Annex I habitat for any species for which any European sites have been designated.

37 The following habitat types, as described by the Heritage Council classification system[15], are present within the Proposed Development site:

- Buildings and artificial surfaces (BL3);
- Recolonising bare ground (ED3).

38 None of the recorded habitats on site correspond with Annex I habitats as per *the Interpretation Manual of European Union Habitats* (European Commission, 2013).

39 To the north of the site, outside the development line, there is wooded area and parkland associated with Terryland Forest park and the Terryland River. To the east, along the River Corrib, wet grassland, marsh, scattered trees and parkland form part of the Dyke Road River Corrib walkway and green space. The lands are bound by the Dyke Road to the south and west and the Headford Road to the southeast while retail units lie to the east. Street lights run along all roads and the subjects lands are lit by flood lighting and overspill from the adjacent buildings.

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

40 However, the River Corrib which is adjacent to the Proposed Development site supports Wet pedunculate oak-ash woodland (WN4), which on alluvial sites can correspond with the Priority Annex I Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-padion, Alnion incanae, Salicion albae*)* [91E0].

3.2.3 Flora

41 A search of the NBDC database returned no records of rare or protected species as occurring within 15 km of the Proposed Development lands. However, it did return records for seven non-native invasive species, listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended), *Reynoutria japonica* x *sachalinensis* = *R*. x *bohemica*, *Heracleum mantegazzianum*, *Gunnera tinctoria*, *Impatiens glandulifera*, *Reynoutria japonica*, *Hyacinthoides hispanica* and *Allium triquetrum*; which were not recorded within the vicinity of the subject lands. In addition it also returned a record for *Elodea canadensis*, which has been delisted as a Third Schedule specie by virtue of SI 355/2015.

42 The surveys undertaken on the 17th July 2023 and additional verification survey on the 5th of March 2025 did not find any protected or rare species, or non-native invasive species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 within the Proposed Development lands. While the 2025 verification study was carried out early in the growing season, due to the urban nature of the Proposed Development site and lack of evidence of any protected or Third Schedule non-native invasive plant species over the course of 2023, 2024 and 2025 site visits it is deemed highly unlikely that these species are present.

43 There are seven plants listed on the Ireland Red List No. 10: Vascular Plants 2016 (Wyse Jackson *et al*., 2016) including *Ranunculus baudotii*, *Centaurea scabiosa*, *Veronica agrestis*, *Carex acuta*, *Carex spicata*, *Arbutus unedo* and *Oenanthe fistulosa* noted from within the vicinity of the Proposed Development lands. These species were not found during surveys at the site and are not considered likely to be found due to the urban habitats present.

3.2.4 Fauna Species

44 A search of the NBDC database of species returned records for several fauna species within approximately 2km (refer to Section 2.3) of the subject lands.

3.2.4.1 Otter

45 The NBDC database holds records for the Annex II listed otter *Lutra lutra* within approximately 2km (refer to Section 2.3) of the subject lands, with the latest record being from 2015, approximately 200m west of the Proposed Development lands along the River Corrib.

46 Adjacent to the site there are areas of local amenity grassland (GA2), open track (ED2), treelines (WL2) & scattered trees, hedgerow (WD5), (low) stone walls (BL1/3, where cemented over) and a busy public road (BL3) between the south-western site boundary and the banks of the River Corrib. There is a lack of scrub cover throughout to provide safe passage between the riverbank and the open urban areas, for any potentially wide-foraging otters.

47 As such, the Proposed Development itself does not contain habitat (neither habitation nor feeding grounds) suitable to otter, and is therefore considered unsuitable for otter activity. Suitable habitats for otter exist off-site to the north in Terryland Forest Park.

48 Otter and their breeding and resting places, are protected under the Wildlife Act 1976 (as amended). Otter are also listed on Annex II and Annex IV of the EU Habitats Directive and are afforded strict protection under the Habitats Directive and the European Communities (Birds and Natural Habitats) Regulations, 2011 (as amended). Otter have a widespread distribution in Ireland and typically otter territories are within the

range of 7.5km for females and up to 21km for males[16]. Otter is a QI species of Lough Corrib SAC and Galway Bay Complex SAC, which are located *c*. 15m west and 700m south of the Proposed Development, respectively.

3.2.4.2 Bats

49 The NBDC database holds records of Annex II Lesser horseshoe Bat *Rhinolophus hipposideros*, within approximately 2km (refer to Section 2.3) of the subject lands. The distribution of lesser horseshoe bat, is restricted to six western counties including Cork, Kerry, Limerick, Clare, Galway and Mayo and is confined to discrete clusters within these counties[17]. The lesser horseshoe bat is also listed in Annex II of the Habitat Directive, necessitating the establishment of SACs for their protection. Lough Corrib SAC is the closest European site designated for the protection of the lesser horseshoe bat. All bats in Ireland are listed as being of "least concern" (Nelson *et al.,* 2019).

50 Although there are Lesser horseshoe bat records from the locality, the local Lesser horseshoe bat population (associated with a network of roost sites around Galway City, including a known maternity roost site at Menlo Castle) is not part of, and does not support, the Qualifying Interest lesser horseshoe bat population of any SAC sites[18]. While, Lough Corrib SAC is the closest European site selected for the Lesser horseshoe bat *Rhinolophus hipposideros*, the roost that forms the QI population for this European site (buildings at Ebor Hall, Clonbur, Co. Galway) is *c.* 35km away from the Project, on the northern shores of Lough Corrib. Ross Lake and Woods SAC is the next closest European site selected for the Lesser horseshoe bat. The roost that forms the QI population for this European site (buildings at Ross House) is more than 17km from the Proposed Development. Lesser horseshoe bat were not recorded during any of the bat activity surveys.

3.2.4.3 Birds

51 The NDBC desk study identified records of 21 SCI bird species within c. 2km of the Proposed Development site. Records for five species that are listed under Annex I of the Birds Directive were recorded within 2km (refer to Section 2.3) of the Proposed Development.

<u>Wintering Birds</u>

52 The desk study returned records of four species listed under Annex I of the Birds Directive and 12 SCI species.

53 The majority of wintering bird species identified in the desk study are typically found in coastal, estuarine, and wetland habitats, including Galway Bay, and wetland/marsh habitat in the River Corrib and Lough Corrib, e.g. bar-tailed godwit *Limosa lapponica*, goldeneye *Bucephala clangula,* greenshank *Tringa nebularia*, wigeon *Anas Penelope*, great northern diver *Gavia immer*, grey plover *Pluvialis squatarola*, Jack snipe *Lymnocryptes minimus*, northern pintail *Anas acuta*, purple sandpiper *Calidrus maritima*, red knot *Calidrus canutus*, and whimbrel *Numenius phaeopus*. There is no suitable habitat for these species within the Proposed Development, as it is comprised of man-made urban habitats. Suitable habitat for these species is located in close proximity to the site however, along the River Corrib, and in Terryland Forest Park.

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[16] Ó'Neill, L., Veldhuizen, T., de Jongh, A. & Rochford, J. (2009). Ranging behaviour and socio-biology of Eurasian otters (*Lutra lutra*) on lowland mesotrophic river systems. European Journal of Wildlife Research. 55:363-370.

[17] NPWS & VWT (2022) Lesser Horseshoe Bat Species Action Plan 2022- 2026. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage, Ireland.

[18] Arup (2018). *N6 Galway City Ring Road Project*. EIAR Chapter 8 Biodiversity and Natura Impact Statement prepared by Scott Cawley Ltd, on behalf of Galway City and County Council. Reports available online at https://www.n6galwaycityringroad.ie/

54 No wintering bird species were observed foraging within the site during wintering bird surveys. Five species were observed flying over the site: black-headed gull *Chroicocephalus ridibundus*, herring gull *Larus argentatus,* common gull *Larus canus*, lesser black-backed gull *Larus fuscus* and oystercatcher *Haematopus ostralegus*. Mallard *Anas platyrhynchos* were observed flying over the River Corrib, adjacent to the Proposed Development site.

55 The nearest site designated for black-headed gull is Inner Galway Bay SPA, approximately 700m south of the Proposed Development site. The nearest site designated for herring gull, is Inishkea Islands SPA, located *c.* 120km northwest of the Proposed Development site. The nearest designated site for common gull is Inner Galway Bay SPA, approximately 700m south of the Proposed Development site. The nearest designated site for lesser black-backed gull is Lough Mask SPA, located *c.* 36.5km north west of the Proposed Development site. The nearest designated site for oystercatcher is Cumeen Strand SPA, located *c.* 115km north east of the Proposed Development site. The nearest site designated for mallard is Lough Ree SPA, located *c.* 74km east of the Proposed Development site.

56 Appendix II provides a list of all wintering birds recorded during the surveys.

Breeding Birds

57 The NBDC desk study returned records of three breeding bird species listed under Annex I of the Birds Directive. The three Annex I species include black-throated diver *Gavia artica*, little egret *Egretta garzetta*, and Mediterranean gull *Larus melanocephalus*, all of which are birds typically found in coastal and estuarine habitats. The nearest site designated for black-throated diver is Inner Galway Bay SPA, approximately 700m south of the Proposed Development site. The nearest site designated for black-throated diver is Seas off Wexford SPA, a considerable distance from the Proposed Development site.

58 No SCI bird species were recorded during the breeding bird surveys of the Proposed Development site.

59 Several bird species for which records were returned in the desk study are those typically found in coastal, estuarine and intertidal habitats, such as Galway Bay. Gulls favour nesting along coasts on shingle and cliffs but may utilise inland public areas for scavenging and buildings for roof nesting as per habitat preferences associated with the species as listed on BirdWatch Ireland (BirdWatch Ireland 2023). As such, some gull species may utilise the buildings adjacent to the Proposed Development for nesting. However, other species associated with estuarine and coastal habitats are not deemed likely to breed within the Proposed Development but could utilise the habitats adjacent to the Proposed Development site along the River Corrib. The majority of records along the Proposed Development comprise bird species common to suburban habitats (including residential and parkland areas), such as gull and garden bird species. These species are therefore likely to use lands adjacent to the Proposed Development for breeding.

3.2.4.4 Aquatic Species

60 The desk study for the Proposed Development in the River Corrib revealed records of several significant fish species. Records of sea lamprey *Petromyzon marinus*, brook lamprey *Lampetra planeri*, and salmon *Salmo salar* were found in the vicinity of the site, which is approximately 15m from Lough Corrib SAC. There were no records of any other aquatic species, that are QIs for European sites within the ZoI of the Proposed Development, were found within 2km (refer to Section 2.3) of the Proposed Development site.

61 No aquatic surveys were undertaken as the Proposed Development site does not intersect with any watercourses. However due to the proximity of the Proposed Development to the River Corrib, there is a possibility that surface runoff water during operation and construction could impact fish species in nearby water bodies.

3.2.4.5 Marine Mammals

62 Harbour seal *Phoca vitulina*, grey seal *Halichoerus grypus*, harbour porpoise *Phocoena phocoena*, and bottlenose dolphin *Tursiops truncatus* are known to be present in Galway Bay, and along the west coast. These species are all protected under the Wildlife Acts, and also listed on Annex II of the Habitats Directive, whilst all cetaceans are also listed on Annex IV of the Habitats Directive.

63 There are NBDC records of harbour seal, grey seal, harbour porpoise and bottlenose dolphin within the vicinity of the Proposed Development. Harbour seal is a QI for Galway Bay Complex SAC, approximately 700m south of the site. Harbour porpoise is a QI for Inishmore Island SAC, located *c.* 38km southwest of the Proposed Development in Galway Bay. The nearest European site designated for grey seal and bottlenose dolphin is Slyne Head SAC, located *c.* 76km west of the Proposed Development.

3.2.5 Hydrology

64 There are no surface water features within the site, however the River Corrib is located *c.* 15m west of the Proposed Development. Terryland Stream lies approximately 130m north of the Proposed Development. The watercourses do not flow directly through the development and there is no direct hydrological connectivity between the Proposed Development and the River Corrib or Terryland Stream.

65 According to the EPA Map Viewer, the Water Framework Directive (WFD) (2000/60/EC) the status of the River Corrib is 'Good' and the status of Terryland Stream is 'Moderate' for the 2016 - 2021 monitoring period.

66 The Transitional Waterbody Quality 2018-2020 status for Corrib Estuary (IE_WE_170_0700) is "unpolluted". The river Corrib flows out to Galway Bay and the Coastal Waterbody Quality 2018-2020 status for Inner Galway Bay North (IE_WE_170_0000) is "unpolluted".

67 The Proposed Development straddles two separate River Sub Basins Terryland_010 (IE_WE_30T010500) and "Corrib_20" (IE_WE_30C020600), the majority of the development will be located on the Corrib_20 river sub basin only a small area encompassing The Black Box theatre (outside of the Proposed Development boundary) is located on the Terryland_010 river sub basin. Both are in the Corrib catchment area flowing into the River Corrib and Lough Corrib SAC and then on to Galway bay and Galway bay Complex SAC.

3.2.6 Hydrogeology

68 The Geological Survey of Ireland (GSI) data states that the study area for the development beneath the site and within the surrounding areas as a 'Regionally Important Aquifer - Karstified (conduit) (RKc). The Environmental Protection Agency (EPA) maps the groundwater body (GWB) beneath the Proposed Development site as the Clare-Corrib GWB. The Clare-Corrib GWB covers some 642 km^2 and occupies an area across Co. Galway, Co. Mayo and Co. Roscommon (GSI, 2024)[19]. During periods of elevated groundwater levels, these sinks undergo a transformation into resurgences, releasing groundwater into the Terryland Stream. This augmented flow eventually converges with the River Corrib (IE_WE_30C020600), located approximately 70m west of the Proposed Development site at its closest point.

69 The karstic systems within the Clare-Corrib GWB exhibit high levels of interconnection, facilitating regional-scale flow systems. Groundwater can bypass surface water catchments by flowing beneath surface water channels and across catchment divides. Flow paths within karst areas can extend up to 10km in length. In the vicinity of the Proposed Development site groundwater flow likely follows a path that ultimately leads towards the River Corrib.

70 The Clare-Corrib GWB (IE_WE_G_0020) is currently classified by the EPA as having "Good" groundwater status and the groundwater risk is currently "Not at Risk".

71 The GSI (2017) Interim Vulnerability Map presently classifies the Groundwater vulnerability of the Project study area as High (Category H), and Subsoil Permeability is "Moderate".

[19] https://gsi.geodata.gov.ie/downloads/Groundwater/Reports/GWB/ClareCorribGWB.pdf

3.2.7 Air Quality

72 The EPA produces an annual report on air quality[20], which includes results from air quality monitoring stations across various Air Quality Zones within Ireland. The EPA has divided the country into zones for the assessment and management of air quality. The zones adopted in Ireland are Zone A, the Dublin conurbation; Zone B, the Cork conurbation; Zone C, comprising 21 large towns in Ireland with a population >15,000; and Zone D, the remaining area of Ireland. The background air quality in the area of the Development is of good quality and the site is located in 'Zone C' as denoted by the EPA.

73 In terms of potential air quality impact assessment, the project has the potential to give rise to construction dust impact during the construction stage and during the operation of the development, there is the potential for air quality impact due to associated road traffic movements and space heating emissions.

74 The effects of air pollution derived from anthropogenic activities is known to have negative impacts on the environment, either directly by causing vegetation die-back, or indirectly by affecting the acidity and nutrient status of soils and waters[21]. Governments have set limit values for a range of air pollutants in ambient air, known as Air Quality Standards (AQS). The Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011) transpose EU Directive 2008/50/EC into Irish law.

75 Construction works will take place <20m from Lough Corrib SAC which in accordance with the IAQM Guidance [22] it is considered a high sensitivity receiver. Therefore, the sensitivity of the Area to Ecological Impacts is High; in terms of potential earthworks, construction and track out dust impacts.

3.3 Assessment of Potential Effects on European Sites

76 This section identifies all the potential impacts associated with the Proposed Development, examines whether there are any European sites within the ZoI of effects from the Proposed Development, and assesses whether there is any potential of the Proposed Development resulting in a significant effect on any European site, either alone or in combination with other plans or projects.

77 In assessing the potential for the Proposed Development to result in a significant effect on any European sites, any measures intended to avoid or reduce the harmful effects of the project on European sites are not taken into account.

78 Considering the baseline ecological environment and the extent and characteristics of the Proposed Development the following potential impacts are discussed in Section 3.3.1 to 3.3.7.

3.3.1 Habitat loss and fragmentation

79 The Proposed Development does not lie within or overlap with the boundary of any European site. Therefore, there are no European sites at risk of direct habitat loss impacts. As the Proposed Development does not traverse any European sites there is no potential for habitat fragmentation to occur.

80 The habitats within the Proposed Development do not support significant populations of any fauna species linked with the QI/SCI populations of any European site(s) in Appendix I for the following reasons:

- The Proposed Development provides no suitable habitat for otter given the lack of on-site watercourses. There are areas of local amenity grassland (GA2), open track (ED2), treelines (WL2) & scattered trees, hedgerow (WD5), stone walls (BL1) and a busy public road (BL3) between the western site boundary and the banks of the River Corrib. There is a lack of scrub cover throughout to provide safe passage between the riverbank and open urban areas for any potentially wide-

[20] Air Quality in Ireland 2021 (2022)

[21] Aherne, J. (2021) *Nitrogen–sulfur critical loads: Assessment of the impacts of air pollution on habitats.* Available at: https://www.epa.ie/publications/research/air/Research_Report_390.pdf (Accessed: June, 2023).

[22] IAQM (2024). *Guidance on the Assessment of Dust from Demolition and Construction*

foraging otter. As such, the proposed site does not contain habitat (habitation or feeding grounds) suitable to otter, and is therefore considered unsuitable for otter activity.

- Bird species that are SCIs of European sites have been recorded in the vicinity of the Proposed development however the site is dominated by buildings artificial surfaces and provides very low suitability for SCI species. Low numbers of flying herring gull, black-headed gull, common gull, lesser black-backed gull, mallard and oystercatcher, and lack of evidence of usage by these or any other SCI species, indicates that the site does not support SCI species that may be associated with European sites in Appendix I. Therefore, this site does not represent an ex situ site or habitat for the SCI species.
- A local Lesser horseshoe bat population is known to utilise a network of roost sites around Galway City, including a known maternity roost site at Menlo Castle. Research carried out on this species has suggested that the majority of feeding activity takes place within c. 2-3km of roosts during the year with occasional movements in excess of *c.* 4km (Bontadina *et al*., 2002[23]; and Biggane, 2003[24]). A review carried out by BCT of radio-tracked individuals, has defined the CSZ as within 2.5km of their roosts. From research carried out in Galway on radio-tracked Lesser horseshoe bats, this species has been shown to travel as far as c. 5.15km from roosts for foraging (Rush and Billington, 2014)[25]. As such, this local Galway City population is not included within or supporting, the Qualifying Interest Lesser horseshoe bat population of any SAC sites, with the closest SAC population being the Ross Lake and Woods SAC [001312] approximately 14.8km northwest, well beyond the normal and maximum foraging ranges of this species. Lesser horseshoe bats are known to preferably forage within broadleaved woodland and wetland areas, the Project will therefore not result in the loss of any of this populations preferred commuting or foraging habitat, as there is no suitable habitat within or directly adjacent to the Proposed Development Extents Boundary. Given the lack of recent evidence of use of the castle by Lesser horseshoe bats and the fact that this small local Galway City population is not linked with the QI populations of any European sites, likely significant effects can be ruled out for this species.

81 As the Proposed Development will not result in habitat loss or habitat fragmentation within any European site and will not affect any *ex-situ* sites used by SCI bird species/populations, there is no potential for any in combination effects to occur in that regard.

3.3.2 Habitat degradation as a result of hydrological impacts

82 The potential release of contaminated surface water runoff and/or an accidental spillage or pollution event into any surface water drainage during construction, or operation, has the potential to affect water quality in the receiving environment. Such a pollution event may include: the release of sediment into receiving waters and the subsequent increase in mobilised suspended solids; and, the accidental spillage and/or leaks of contaminants into receiving waters.

83 Based on the findings of the Hydrological and Hydrogeological Risk Assessment Report for the Proposed Development (Enviroguide Consulting, 2025), it is considered that in the absence of any mitigation or

[23] Bontadina, F., Schofield, H., and Naef-Daenzer, B. (2002). *Radio-tracking reveals that lesser horseshoe bats (Rhinolophus hipposideros) forage in woodland*. Journal of the Zoological Society of London, 258, 281-290. Available online at https://www.vincentwildlife.ie/wp-content/uploads/2015/04/bontadina-f-et-al-2002-radio-tracking-reveals-that-lesser-horseshoe-bats-forage-in-woodland.pdf

[24] Biggane, S. (2003) *The lesser horseshoe bat Rhinolophus hipposideros (Bechstein 1800) at Dromore, Co. Clare: diet, foraging activity, habitat selection and nocturnal behaviour*. Ph.D. Thesis, National University of Ireland, Galway, Ireland.

[25] Rush, T., and Billington, G. (2014). *Galway bat radio-tracking project. Radio tracking studies of lesser horseshoe and vesper bat species, August and September 2014*. Greena Ecological Consultancy. Witham Friary, 2014. Produced on behalf of Scott Cawley Ltd. to inform an Environmental Impact Assessment Report and Natura Impact Statement for the N6 Galway City Ring Road Project. Report available online at https://n6galwaycityringroad.ie/media/A.8.7.pdf

avoidance measures that there would be a potential impact on water quality of the Corrib River, the Corrib Estuary and associated downstream European sites. There is also a potential risk associated with the indirect (mains drainage) discharge of surface water runoff from the Proposed Development on the receiving water quality of the Terryland Stream, the Corrib River, the Corrib Estuary and associated downstream European sites.

84 A pollution event, of a sufficient magnitude, has the potential to affect the receiving aquatic and marine environments (either alone or in combination with other pressures on water quality) to an extent that undermines the conservation objectives of Lough Corrib SAC and the European sites downstream in Galway Bay – Galway Bay Complex SAC and Inner Galway Bay SPA

85 A reduction in water quality as a result of an accidental pollution event or additional sediment load (either alone or in combination with other pressures on water quality) could result in the degradation of the local aquatic environment, which could in turn negatively affect QI species including otter, fish species such as Atlantic salmon, sea lamprey and brook lamprey, as well as marine mammals. This could also result in the degradation of sensitive QI habitats present within these European sites, which in turn would negatively affect the QI and SCI species that rely upon these habitats.

86 Therefore, there is the possibility of the Proposed Development undermining the conservation objectives of the qualifying interests or special conservation interests of Lough Corrib SAC, Lough Corrib SPA, Galway Bay SAC and Inner Galway Bay SPA, either alone or in combination with any other plans or projects, as a result of hydrological effects.

Foul Water

87 Foul water discharge from the temporary welfare units at the site during the construction phase will be either tankered offsite in accordance with waste management legislation or discharged under temporary consent to the UÉ mains foul network for treatment at Galway WWTP.

88 Foul water from the Proposed Development will only be discharged to the UÉ network under the appropriate consents from UÉ. The Galway WWTP (EPA Licence No. D0050-01) was identified by UÉ to have sufficient capacity to accept foul water from the Proposed Development subject to provision of the new WWPS and upgrade works to the existing 150mm diameter sewer from Dyke Road to Wood Quay, which will be completed by UÉ in advance of any connection from the site.

89 Therefore, based on the findings of Hydrological and Hydrogeological Risk Assessment Report (Enviroguide Consulting, 2025), it is considered that the Proposed Development will not cause a potential impact on any receiving waterbody or European sites associated with foul water discharges from the Proposed Development site.

3.3.3 Habitat degradation as a result of hydrogeological impacts

90 The Proposed Development lies within the Clare-Corrib GWB. While the overall groundwater flow direction of Clare-Corrib GWB generally trends towards the River Clare and Lake Corrib, the highly karstified bedrock introduces significant local variability in flow directions. In the vicinity of the site groundwater flow likely follows a path that ultimately leads towards the River Corrib (Enviroguide Consulting, 2025). During groundworks and excavations, the groundwater vulnerability will be increased and there will be a more direct pathway for surface contaminants to enter the underlying bedrock aquifer and migrate towards downgradient receiving surface water bodies.

91 The Clare-Corrib GWB beneath the site is considered to have high levels of interconnection between groundwater and surface water with limited potential for attenuation of dissolved phase contaminants which have the potential to rapidly migrate towards receiving watercourses and European sites.

92 Based on the findings of the Hydrological and Hydrogeological Risk Assessment Report (Enviroguide Consulting, 2025), in an unmitigated scenario, there is a potential risk associated with the discharge of contaminants to ground affecting both the underlying aquifer and downstream waterbodies including the Corrib River, the Corrib Estuary and associated downstream European sites.

93 Five of the Qualifying Interests of Lough Corrib SAC, including priority Annex I habitats Petrifying springs with tufa formation, Active raised bogs, Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* as well as Alkaline fens and Degraded raised bogs still capable of natural regeneration, are dependent upon the existing condition and functioning of the groundwater regime. Three of the Qualifying Interests of Galway Bay SAC, including priority Annex I habitats, Turloughs and Calcareous fens with *Cladium mariscus* and species of the *Caricion davallianae* as well as Alkaline fens are also groundwater-dependent.

94 As the GWB underlying the Proposed Development site is considered to have high levels of interconnection between groundwater and surface water, there is potential for water quality impacts to affect QI species of Lough Corrib SAC including otter and aquatic species such as Atlantic salmon, sea lamprey and brook lamprey, as well as QI species of Inner Galway Bay, otter and harbour seal. Groundwater and surface water quality impacts could also affect potential *ex-situ* sites used by wintering bird species listed as SCIs for Lough Corrib SPA and/or Inner Galway Bay SPA. This impact could affect the type, quality and extent of suitable habitat available to SCI bird species at *ex-situ* sites which lie within the hydrogeological ZoI.

95 Therefore, there is the possibility of the Proposed Development undermining the conservation objectives of all of the Qualifying Interests or Special Conservation Interests of Lough Corrib SAC, Lough Corrib SPA, Galway Bay SAC and Inner Galway Bay SPA , either alone or in combination with any other plans or projects, as a result of hydrogeological effects.

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

96 No non-native invasive plant species were recorded within the area of proposed works and no species currently listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations, 2011 were recorded within the site during the 2023 or 2025 surveys. As the site is largely built ground, there is little which is unsuitable for plant species. As such, there is no possibility of the Proposed Development undermining the conservation objectives of the qualifying interests or special conservation interests of the European site as a result of accidentally spreading or introducing non-native invasive species.

97 As such, there is no possibility of the Proposed Development undermining the conservation objectives of the QIs or SCIs of any European site as a result of accidentally spreading or introducing non-native invasive species

3.3.5 Disturbance and displacement impacts

98 Construction-related disturbance and displacement of fauna species could potentially occur within the vicinity of the Proposed Development. For mammal species such as otter, disturbance effects would not be expected to extend beyond 150m[26]. For birds, disturbance effects would not be expected to extend beyond a distance of *c.* 300m, as noise levels associated with general construction activities would attenuate to close to background levels at that distance[27].

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

[27] The disturbance zone of influence for waterbirds is based on the relationship between the noise levels generated by general construction traffic/works (BS 5228:2009 Code of Practice for Noise and Vibration Control on Construction and Open Sites – Part 1 Noise) and the proximity of those noise levels to birds – as assessed in Cutts, N. Phelps, A. & Burdon, D. (2009) *Construction and Waterfowl: Defining Sensitivity, Response, Impacts and Guidanc*e, and Wright, M., Goodman, P & Cameron, T. (2010*) Exploring Behavioural Responses of Shorebirds to Impulsive Noise.* Wildfowl (2010) 60: 150–167. At 300m, noise levels are below 60dB or, in most cases, are approaching the 50dB threshold below which no disturbance or displacement effects would arise.

99 Lough Corrib SAC is within the disturbance ZoI and there is the potential for Qualifying Interest species to be disturbed and displaced from foraging habitat within the site for the duration of construction and/or operation. Whilst Galway Bay Complex SAC is not within the disturbance ZoI of the Proposed Development, it is possible that the QI otter population from this SAC, overlap with the Lough Corrib population. Research carried out by Ó Néill *et al.,* (2009)[28] on ranging behaviours of otter on river systems in Ireland found that female otter ranges averaged *c.* 7.5km while male otter home ranges varied between *c.* 7-19km. Increased human presence and/or noise and vibration associated with construction works may temporarily displace commuting or foraging otter, particularly during noisy activities. Otter are known to tolerate human disturbance under certain circumstances[29],[30]. Construction works will typically be undertaken during normal daylight working hours. Whilst otters are generally nocturnal in habit, and can (in many circumstances) tolerate high levels of human presence and disturbance, temporary displacement in the vicinity of the Proposed Development noise and vibration associated with construction works could temporarily displace commuting or foraging otter during the construction phase of the development. Therefore, there is potential for the Proposed Development to result in significant effects (albeit short-term) which could have implications for the conservation objectives of Lough Corrib SAC and Galway Bay Complex SAC as a result of disturbance/displacement impacts on otter during construction.

100 The measured ambient noise level (rounded to the nearest 5 dB) in proximity to the site is in the range of 60 - 65 dB LAeq,12 Hour during daytime. Therefore, all noise sensitive receptors fall into Category A of the 'ABC' assessment methodology. Hence, daytime construction noise will be subject to a limit of 65 dB LAeq,12 Hour. No night-time or evening construction works is expected to take place. There will be instances where the noise levels exceed this, i.e. a dump truck within the site at 82dB, however these instances are very short term and not expected to cause a population effect on local wintering bird species, particularly as suitable habitats are present in the wider landscape within the River Corrib, Lough Corrib and Galway Bay.

3.3.6 Habitat degradation as a result of air quality impacts

Construction

101 The Proposed Development has the potential to generate dust during construction works which could affect vegetation in habitat areas adjacent to the Proposed Development. This includes reduction in photosynthesis due to smothering from dust on the plants and chemical changes such as acidity to soils. Whilst potential impacts on vegetation and habitats arising from air pollution associated with a project of this nature is generally greatest within *c.* 50-100m; impacts may also occur beyond this to a maximum distance of *c.* 200m from the road development and haul routes construction vehicles (NRA, 2011; Natural England, 2016; Bignal *et al.,* 2004).

102 Dust deposition due to demolition, earthworks, construction and trackout has the potential to affect sensitive habitats and plant communities. Dust can have two types of effect on vegetation: physical and chemical. Direct physical effects include reduced photosynthesis, respiration and transpiration through smothering. Chemical changes to soils or watercourses may lead to a loss of plants or animals for example via changes in acidity. Indirect effects can include increased susceptibility to stresses such as pathogens and air pollution. These changes are likely to occur only as a result of long-term demolition and construction works adjacent to a sensitive habitat. Often impacts will be reversible once the works are completed, and dust emissions cease.

[28] Ó'Néill, L., Veldhuizen, T., de Jongh, A., and Rochford, J. (2009). *Ranging behaviour and socio-biology of Eurasian otters (Lutra lutra) on lowland mesotrophic river systems.* European Journal of Wildlife Research 55(4):363-370.

[29] Bailey, M. and Rochford J. (2006) *Otter Survey of Ireland 2004/2005*. Irish Wildlife Manuals, No. 23. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

[30] The Environment Agency (2010). *Fifth otter survey of England 2009-2010*. Environment Agency, Almondsbury, Bristol, England

103 Lough Corrib SAC is located approximately 15m west of the site boundary. Construction works will take place <20m from Lough Corrib SAC which in accordance with IAQM Guidance (IAQM, 2024) is considered a high sensitivity receiver. Therefore, the sensitivity of the Area to Ecological Impacts is High; in terms of construction and track out dust impacts, and low risk for earthworks. Therefore, European sites within 200m of the Proposed Development have the potential to be impacted by dust during the construction phase of the development, i.e. Lough Corrib SAC.

Operation

104 Interactions between air quality and traffic can be significant. With increased traffic movements and reduced engine efficiency, i.e. due to congestion, the emissions of vehicles increase. The impacts of the Proposed Development on air quality were assessed by reviewing the change in annual average daily traffic on roads close to the site. Additional traffic as a result of the Proposed Development is predicted to cause an increase in NOx concentrations within Lough Corrib SAC. TII guidelines state that as the potential impact of a development is limited to a local level, detailed consideration need only be given to roads where there is a significant change to traffic flows (>5%) and the designated / ecologically sensitive site is located within 200m of the road centre line.

105 The predicted AADT traffic flows on Dyke Road and the Headford Road with the Proposed Development do not increase by more than 5%. Therefore, an assessment of traffic emissions on the designated / ecologically sensitive site is not required. This increase is below the assessment criteria stipulated in the TII and Design Manual for Roads and Bridges (DMRB) guidance (TII, 2022[31] and Highways Agency, 2020[32]) and therefore is not considered significant.

3.3.7 Collision Risk

106 The presence of new multi-storey structures within the Proposed Development site could potentially result in direct mortality of bird species that utilise the site for commuting, due to collisions. Bird collisions with man-made structures are common and well documented[33] with migratory passerine species the most prevalent collision victims[34]. Bird collision with buildings is generally associated with reflective material such as windows or large surfaces of glass which create a mirror and appear to show the continuation of

[31] Transport Infrastructure Ireland (2022) Air Quality Assessment of Specified Infrastructure Projects Overarching Technical Guidance, PE-ENV-01106

[32] Highways Agency (2020) DMRB Sustainability & Environment. Appraisal LA 105 Air quality. DMRB LA105 Air quality (formerly HA 207/07, IAN 170/12, IAN 174/13, IAN 175/13, part of IAN 185/15)

[33] Banks, R.C (1979). *Human related mortality of birds in the United States*. U.S. Fish Wildl. Serv. Spec. Sci. Rep. Wildl. 215. 16 pp.

Jenkins, A., Smallie, J.J. and Diamond, M. (2010). Avian collisions with power lines: A global review of causes and mitigation with a South African perspective. *Bird Conservation International*, 20(03), 263 – 278.

Klem, D. (1990). Collisions between birds and windows: mortality and prevention. *Journal of Field Ornithology*, 61, 120–128.

Erickson, W.P., Johnson, G.D. and Young, P.D. (2005). *A Summary and Comparison of Bird Mortality from Anthropogenic Causes with an Emphasis on Collisions*. USDA Forest Service Gen. Tech. Rep. PSW-GTR-191. 2005.

Erickson, W. P., G. D. Johnson, M. D. Strickland, D. P. Young, Jr., K. J. Sernka, and R. E. Good. (2001). *Avian collisions with wind turbines: A summary of existing studies and comparisons to other sources of avian collision mortality in the United States*. National Wind Coordinating Committee, c/o RESOLVE, Inc., Washington, D.C.

[34] Bing G.-C., Choi C.-Y., Nam H.-Y., Park J.-G., Hong G.-P., Sung J.-K., Chae H.-Y & Choi Y.-B. (2012). Causes of mortality in birds at stopover islands. *Korean J. Ornithol*., 19, 23–31.

Longcore, T. Rich, C., Mineau, P., MacDonald, B., Bert, D.G., Sullivan, L.M., Mutrie, E., et al. (2013). Avian mortality at communication towers in the United States and Canada: which species, how many, and where? *Biological Conservation,* 158, 410-419.

the sky or surrounding landscape, an effect that can be exacerbated by lighting[35]. Whilst the design of the facades of the Proposed Development do include windows, no large surfaces of glass are proposed.

107 The use of different materials and design in the facades and elevations will minimise the effect of glazing, making the building more detectable to birds and therefore reduce the potential for collisions to occur. In the absence of mitigation there could be a low level of mortality attributable to bird collision with glazing on the proposed buildings, however this impact is unlikely to cause any significant effect at a local scale or any other geographic scale.

108 SCI species for SPAs within the ZoI of the Proposed Development regularly navigate the urban environment and travel over built structures. For context on their avoidance capabilities, in a different setting and for use in collision risk modelling for onshore wind turbines, an avoidance rate of 99.5% is applied for large gull species and an avoidance rate of 99.2% is applied for small gull species (Furness, 2019)[36], which means that 99.5% and 99.2% of gull flights, respectively, will avoid collision with a moving turbine. For curlew the avoidance rate applied is 98% (SNH, 2018)[37]. The risk of collision is even lower with a static, detectable building. While the presence of the Proposed Development might alter flight patterns of bird species to avoid the proposed building structures the risk of collision is extremely low.

109 Considering the low collision risk associated with the species in question, in combination with the building location, design and materials used, the potential for mortality due to building collisions is low. It is acknowledged that there could be a low level of mortality attributable to bird collision with glazing on the proposed buildings. However, due to the low numbers of species and individuals recorded over the Proposed Development site and their avoidance capabilities, this impact would not result in any population level effect or change in distribution of any species, including any SCI species for SPAs within the ZoI of the Proposed Development.

3.3.8 Summary

110 The potential impacts associated with the Proposed Development have the potential to affect the receiving environment and, as a result, the conservation objectives supporting the qualifying interest/special conservation interests of Galway Bay Complex SAC, Inner Galway Bay SPA, Lough Corrib SAC and Lough Corrib SPA

111 The potential impacts of the Proposed Development on the receiving environment, their zone of influence, and the European sites at risk of likely significant effects are summarised in Table 3 below.

Table 3 Summary of Analysis of Likely Significant Effects on European sites

Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	Are there any European sites within the ZoI of the Proposed Development?
Habitat loss Habitat loss will be confined to the lands within the Proposed Development boundary.	No There are no European sites within the Proposed Development boundary.
Habitat degradation as a result of hydrological impacts Habitats and species downstream of the Proposed Development site and the associated surface water	Yes Lough Corrib SAC, Galway Bay Complex SAC and Inner Galway Bay SPA are potentially at risk of hydrological effects arising from surface

[35] Sheppard, C. & Phillips, G. (2015). *Bird-Friendly Building Design*, 2nd Ed. The Plains, VA: American Bird Conservancy, 2015.

[36] Furness, R.W. (2019) Avoidance rates of herring gull, great black-backed gull and common gull for use in the assessment of terrestrial wind farms in Scotland. Scottish Natural Heritage Research Report No. 1019.

[37] Scottish Natural Heritage (SNH). (2018) Avoidance Rates for the onshore SNH Wind Farm Collision Risk Model. September 2018 v2.

Potential Direct, Indirect In Combination Effects and the ZoI of the Potential Effects	Are there any European sites within the ZoI of the Proposed Development?
drainage discharge points, and downstream of offsite wastewater treatment plants.	water run-off and pollution associated with the construction and/or operational phases of the Proposed Development.
Habitat degradation as a result of hydrogeological impacts Groundwater-dependant habitats, and the species those habitats support, in the local area that lie downgradient of the Proposed Development site.	Yes Lough Corrib SAC, Lough Corrib SPA, Galway Bay SAC and Inner Galway Bay SPA are potentially at risk of hydrogeological effects associated with the Proposed Development.
Habitat degradation as a result of introducing/spreading non-native invasive species Habitat areas within, adjacent to, and potentially downstream of the Proposed Development site.	No There are no non-native invasive species present on the Proposed Development site and, therefore, no risk associated with the Proposed Development to any European sites from the spread/introduction of non-native invasive species.
Disturbance and displacement impacts Potentially up to several hundred metres from the Proposed Development boundary, dependent upon the predicted levels of noise, vibration and visual disturbance associated with the Proposed Development, taking into account the sensitivity of the qualifying interest species to disturbance effects	Yes Lough Corrib SAC and Galway Bay Complex SAC are within the potential zone of influence of disturbance effects associated with the construction of the Proposed Development.
Habitat degradation as a result of air quality impacts QI habitats, and QI/SCI species that rely upon these habitats for forage/roosting within 20km of the Proposed Development site are potentially at risk.	Yes Lough Corrib SAC is potentially at risk of air quality impacts associated with the Proposed Development.
Collision Risk for bird species that utilise the site for commuting due to the new multi-storey building.	No No possibility of the Proposed Development undermining the conservation objectives of the QIs or SCIs of any European sites as a result of mortality from building collisions.

4 Conclusions of Screening Assessment Process

112 Following an examination, analysis and evaluation of all the relevant information and in view of best scientific knowledge, and applying the precautionary principle, it can be concluded that there is the possibility for significant effects on European sites, in the absence of mitigation, either arising from the project alone or in combination with other plans and projects as result of habitat degradation as a result of hydrological impacts, habitat degradation as a result of hydrogeological impacts, habitat degradation as a result of air quality, and disturbance and displacement impacts, on Lough Corrib SAC, Lough Corrib SPA, Galway Bay Complex SAC and Inner Galway Bay SPA.

113 In reaching this conclusion, the nature of the project and its potential relationship with all European sites within the zone of influence, and their conservation objectives, have been fully considered.

114 Therefore, it is the professional opinion of the authors of this report that the application for approval for the Proposed Development requires a Stage Two Appropriate Assessment and consequently the preparation of a Natura Impact Statement (NIS).

Appendix I

The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the Proposed Development site

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
Special Area of Conservation (SAC)	
Lough Corrib SAC [000297] 1029 Freshwater Pearl Mussel *Margaritifera margaritifera* 1092 White-clawed Crayfish *Austropotamobius pallipes* 1095 Sea Lamprey *Petromyzon marinus* 1096 Brook Lamprey *Lampetra planeri* 1106 Salmon *Salmo salar* 1303 Lesser Horseshoe Bat *Rhinolophus hipposideros* 1355 Otter *Lutra lutra* 1393 Slender Green Feather-moss *Drepanocladus vernicosus* 1833 Slender Naiad *Najas flexilis* 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7110 Active raised bogs* 7120 Degraded raised bogs still capable of natural regeneration 7150 Depressions on peat substrates of the Rhynchosporion 7210 Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens 8240 Limestone pavements* 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles 91D0 Bog woodland* *S.I. No. 384/2022 - European Union Habitats (Lough Corrib Special Area of Conservation 000297) Regulations 2022.* NPWS (2017*) Conservation Objectives: Lough Corrib SAC 000297.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs. [38]	Approximately 15m west of the Proposed Development site.
Galway Bay Complex SAC [000268] 1140 Mudflats and sandflats not covered by seawater at low tide 1150 Coastal lagoons*	Approximately 700m south of the Proposed Development site.

[38] The versions of the conservation objectives documents referenced in this table are the most recent published versions at the time of writing

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
1160 Large shallow inlets and bays 1170 Reefs 1220 Perennial vegetation of stony banks 1310 *Salicornia* and other annuals colonising mud and sand 1330 Atlantic salt meadows (Glauco-Puccinellietalia maritimae) 1355 Otter *Lutra lutra* 1365 Harbour seal *Phoca vitulina* 1410 Mediterranean salt meadows (Juncetalia maritimi) 3180 Turloughs* 5130 *Juniper communis* formations on heaths or calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates(Festuco Brometalia)(*important orchid sites) 7210 Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* 7230 Alkaline fens *S.I. No. 548/2021 - European Union Habitats (Galway Bay Complex Special Area of Conservation 000268) Regulations 2021.* NPWS (2013*) Conservation Objectives: Galway Bay Complex SAC 000268.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Connemara Bog Complex SAC [002034] 1065 Marsh Fritillary *Euphydryas aurinia* 1106 Salmon *Salmo salar* 1150 Coastal lagoons* 1170 Reefs 1355 Otter *Lutra lutra* 1833 Slender Naiad *Najas flexilis* 3110 Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) 3130 Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea 3160 Natural dystrophic lakes and ponds 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4010 Northern Atlantic wet heaths with *Erica tetralix* 4030 European dry heaths 6410 *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) 7130 Blanket bogs (* if active bog) 7140 Transition mires and quaking bogs 7150 Depressions on peat substrates of the Rhynchosporion 7230 Alkaline fens 91A0 Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles NPWS (2015) *Conservation Objectives: Connemara Bog Complex SAC 002034.* Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	Approximately 12.7km west of the Proposed Development site.
Ross Lake and Woods SAC [001312] 1303 Lesser Horseshoe Bat *Rhinolophus hipposideros* 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp.	Approximately 13.5km northwest of the Proposed Development site.

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
S.I. No. 656/2019 - European Union Habitats (Ross Lake and Woods Special Area of Conservation 001312) Regulations 2019 NPWS (2018) *Conservation Objectives: Ross Lake and Woods SAC 001312.* Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.	
Lough Fingall Complex SAC [000606] 1303 Lesser Horseshoe Bat *Rhinolophus hipposideros* 3180 Turloughs* 4060 Alpine and Boreal heaths 5130 *Juniper communis* formations on heaths or calcareous grasslands 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 7210 Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* 8240 Limestone pavements* NPWS (2019) *Conservation Objectives: Lough Fingall Complex SAC 000606. Version 1.* National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.	Approximately 14km southeast of the Proposed Development site.
East Burren Complex SAC [001926] 1065 Marsh Fritillary *Euphydryas aurinia* 1303 Lesser Horseshoe Bat *Rhinolophus hipposideros* 1355 Otter *Lutra lutra* 3140 Hard oligo-mesotrophic waters with benthic vegetation of *Chara* spp. 3180 Turloughs* 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation 4060 Alpine and Boreal heaths 5130 *Juniperus communis* formations on heaths or calcareous grasslands 6130 Calaminarian grasslands of the Violetalia calaminariae 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) 6510 Lowland hay meadows (*Alopecurus pratensis*, *Sanguisorba officinalis*) 7210 Calcareous fens with *Cladium mariscus* and species of the Caricion davallianae* 7220 Petrifying springs with tufa formation (Cratoneurion)* 7230 Alkaline fens 8240 Limestone pavements* 8310 Caves not open to the public 91E0 Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (Alno-Padion, Alnionincanae, Salicion albae)* *S.I. No. 463/2023 - European Union Habitats (East Burren Complex Special Area of Conservation 001926) Regulations 2023* NPWS (2022) *Conservation Objectives: East Burren Complex SAC 001926. Version 1.* National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	Approximately 14.4km south of the Proposed Development site.
Special Protection Area (SPA)	
Inner Galway Bay SPA [004031] A003 Great Northern Diver *Gavia immer* A017 Cormorant *Phalacrocorax carbo* A028 Grey Heron *Ardea cinerea*	Approximately 700m south of the Proposed Development site.

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
A046 Brent Goose *Branta bernicla hrota* A050 Wigeon *Anas penelope* A052 Teal *Anas crecca* A056 Shoveler *Anas clypeata* A069 Red-breasted Merganser *Mergus serrator* A137 Ringed Plover *Charadrius hiaticula* A140 Golden Plover *Pluvialis apricaria* A142 Lapwing *Vanellus vanellus* A149 Dunlin *Calidris alpina alpina* A157 Bar-tailed Godwit *Limosa lapponica* A160 Curlew *Numenius arquata* A162 Redshank *Tringa totanus* A169 Turnstone *Arenaria interpres* A179 Black-headed Gull *Chroicocephalus ridibundus* A182 Common Gull *Larus canus* A191 Sandwich Tern *Sterna sandvicensis* A193 Common Tern *Sterna hirundo* A999 Wetlands *S.I. No. 515/2019 - European Union Conservation of Wild Birds (Inner Galway Bay Special Protection Area 004031) Regulations 2019* NPWS (2013*) Conservation Objectives: Inner Galway Bay SPA 004031. Version 1.* National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	
Lough Corrib SPA [004042] A051 Gadwall *Anas strepera* A056 Shoveler *Anas clypeata* A059 Pochard *Aythya ferina* A061 Tufted Duck *Aythya fuligula* A065 Common Scoter *Melanitta nigra* A082 Hen Harrier *Circus cyaneus* A125 Coot *Fulica atra* A140 Golden Plover *Pluvialis apricaria* A179 Black-headed Gull *Chroicocephalus ridibundus* A182 Common Gull *Larus canus* A193 Common Tern *Sterna hirundo* A194 Arctic Tern *Sterna paradisaea* A395 Greenland White-fronted Goose *Anser albifrons flavirostris* A999 Wetlands *S.I. No. 455/2012 - European Communities (Conservation of Wild Birds (Lough Corrib Special Protection Area 004042)) Regulations 2012.* NPWS (2023a) *Conservation Objectives: Lough Corrib SPA 004042. Version 1.* National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	Approximately. 2.8km north of the Proposed Development site.
Cregganna Marsh SPA [004142] A395 Greenland White-fronted Goose *Anser albifrons flavirostris* *S.I. No. 514/2019 - European Union Conservation of Wild Birds (Cregganna Marsh Special Protection Area 004142) Regulations 2019*	Approximately 8.1km east of the Proposed Development site.

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
NPWS (2023b) *Conservation Objectives: Cregganna Marsh SPA 004142. Version 1.* National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.	

Appendix II

Planning polices/objectives relating to the protection of European sites and water quality

Northern & Western Regional Assembly (NWRA) Regional Spatial and Economic Strategy (RSES) 2020-2032

Overarching Environmental Regional Policy Objectives

1. The Assembly supports the process whereby applications for development consents for projects emanating from any policies that may give rise to likely significant effects on the environment will need to be accompanied by one or more of the following, as relevant:
    i. An Ecological Impact Assessment Report (EcIA);
    ii. Environmental Report (ER);
    iii. An Environmental Impact Assessment Report (EIAR) if deemed necessary under the relevant legislation (statutory document);
    iv. Natura Impact Statement (NIS) if deemed necessary under the relevant legislation (statutory document).
2. The Assembly supports the implementation of the All-Ireland Pollinator Plan 2015-2020 and support measures to control and manage the spread of invasive and alien species within the region.
3. The Assembly will coordinate the core objectives of the EU Flood Directive and statutory plans across the planning hierarchy, including national guidance on the relationship between the planning system and flood risk management.
4. The Assembly supports the use of Environmental Sensitivity Mapping (e.g. EPA ESM Webtool) to investigate optimum and integrated land use management with particular emphasis on cumulative impacts.
5. The Assembly supports the integration of biodiversity considerations in a positive, proactive and precautionary way and promotes the protections of the environment and biodiversity conservation as key principles of this strategy.

Regional Policy Objective 3.10

Ensure flood risk management informs development by avoiding inappropriate development in areas at risk of flooding and integrate sustainable water management solutions (such as SUDS, non-porous surfacing and green roofs) to create safe places. Development plans should assess flood risk by implementing the recommendations of the Planning System and Flood Risk Assessment Guidelines for Planning Authorities (2009) and Circular PL02/2014 (August 2014).

Regional Policy Objective 3.11

Local Authorities, DHPLG, OPW, and other relevant Departments and agencies to work together to implement the recommendation of the CFRAM programme to ensure that flood risk management policies and infrastructure are progressively implemented.

Regional Policy Objective 3.7.13

Support the upgrading of the Water Supply System and the Sewage Treatment System (including a Drainage Area Plan) to meet the growth targets set in this strategy.

Regional Policy Objective 4.36

To support the sustainable expansion and upgrade of Galway Harbour and Galway Port as part of the overall vision to grow Galway as a City Region, subject to visual, transport and economic viability considerations and in compliance with the EU Habitats Directive (which may necessitate consideration of IROPI5).

Regional Policy Objective 5.4

Encourage the prioritisation of Site-Specific Conservation Objectives (SSCO) for all sites of Conservation Value, designated in EU Directive (i.e. SACs, SPAs) to integrate with the development objectives of this Strategy.

Regional Policy Objective 5.5

Ensure efficient and sustainable use of all our natural resources, including inland waterways, peatlands, and forests in a manner which ensures a healthy society a clean environment and there is no net contribution to biodiversity loss arising from development supported in this strategy. Conserve and protect designated areas and natural heritage area. Conserve and protect European sites and their integrity.

Regional Policy Objective 5.7

Ensure that all plans, projects and activities requiring consent arising from the RSES are subject to the relevant environmental assessment requirements including SEA, EIA and AA as appropriate.

Regional Policy Objective 5.22

To protect and conserve our designated peatlands and bogs for reasons of biodiversity, ecosystem services, carbon sinks, areas of habitat importance, amenity and landscape value.

Regional Policy Objective 8.16

Water conservation measures should be expanded particularly by rehabilitation and reinforcement of existing water networks.

Regional Policy Objective 8.17

Provide quality water and wastewater services necessary for urban and rural economic development purposes.

Regional Policy Objective 8.18

Ensure the protection and improvement of all waters – rivers, lakes, groundwater, estuaries (transitional waters), coastal waters and their associated habitats and species throughout the region and implement measures to achieve at least Good Status in all water surface bodies.

Regional Policy Objective 8.19

Implement the EC Environmental Objectives (Groundwater) Regulations, 2010 (S.I.No.9); the EC (Good Agricultural Practice for Protection of Waters) Regulations, 2009 (S.I. No.101), the Bathing Water Quality Regulations, 2008 (S.I.79) and EC (Quality of Shellfish Waters) Regulations 2006 and amendment Regulations.

Regional Policy Objective 8.20

Participate in the implementation and promote compliance with the objectives of the 'Water Framework Directive' through the River Basin Management Plans throughout the region.

Regional Policy Objective 8.21

Ensure Drainage Area Plans including investigation on elimination of combined sewers are prepared for Galway, Athlone, Monaghan and Roscommon.

Regional Policy Objective 8.22

Prioritising investment to improve stormwater infrastructure to improve sustainable drainage and reduce the risk of flooding in the urban and rural environment.

Regional Policy Objective 8.23

The Regional Authority will support the achievement of the objectives under the River BMP for the relevant water bodies in the region.

Regional Policy Objective 9.8

To ensure the continuation and strengthening of cross-jurisdictional management of River Basin Management Plans and the implementation of the Water Framework Directive.

Galway County Development Plan 2022-2028

Policy Objectives for Water Supply

WS 7 Water Quality

Require that new development proposals would ensure that there would not be an unacceptable impact on water quality and quantity including surface water, ground water, designated source protection areas, river corridors and associated wetlands.

WS 8 Proliferation of Septic

Tanks Encourage the use of high standard treatment plants to minimise the risk of groundwater pollution

Policy Objectives Wastewater

WW 4 Requirement to Liaise with Irish Water – Wastewater

Ensure that new developments will only be permitted which are adequately serviced with sufficient capacity for appropriate collection, treatment and disposal (in compliance with the Water Framework Directive and River Basin Management Plan) to the public sewer unless provided for otherwise by the plan. Developers shall liaise with Irish Water with regard to the wastewater (and water) infrastructure to ensure sufficient capacity is available prior to the submission of a planning application.

WW 7 Sustainable Drainage Systems

To require the use of Sustainable Drainage Systems to minimise and limit the extent of hard surfacing and paving and require the use of SuDS measures be incorporated in all new development (including extensions to existing developments). All development proposals shall be accompanied by a comprehensive SuDS assessment including run-off quantity, run off quality and impacts on habitat and water quality.

WW 8 Storm Water Infrastructure

To support the improvement of storm water infrastructure and to increase the use of sustainable drainage and reduce the risk of flooding in urban environments.

WW 9 Integrated Wetland Wastewater Treatment Systems

Galway County Council will encourage the use of integrated wetland wastewater treatment systems for both one off and multi-unit housing developments that accord with the prevailing regulations and standards including the relevant EPA Code of Practice.

WW10 Surface Water Drainage

To require all new developments to provide a separate foul and surface water drainage system and to incorporate sustainable urban drainage systems where appropriate in new development and the public realm.

WW11 Protection of Irish Water Collection Systems

To prohibit the discharge of additional surface water to combined (foul and surface water) sewers in order to maximise the capacity of existing collection systems for foul water.

Policy Objectives Waste Management

WM 2 Requirements for Waste Management

Support and promote the circular economy principles, prioritising prevention, reuse, recycling and recovery, and to sustainably manage residual waste. New developments will be expected to take account of the provisions of the Waste Management Plan for the Region and observe those elements of it that relate to waste prevention and minimisation, waste recycling facilities, and the capacity for source segregation.

WM 4 Waste Legalisation

To require that all waste disposal shall be undertaken in compliance with the requirements of the Environmental Protection Agency and relevant Waste Management Legislation.

WM 5 Construction and Environmental Management Plans

Construction Environment Management Plans shall be prepared in advance of the construction of relevant projects and implemented throughout. Such plans shall incorporate relevant mitigation measures which have been integrated into the Plan and any lower tier Environmental Impact Assessment Report or Appropriate Assessment. CEMPs typically provide details of intended construction practice for the proposed works, including: (a) location of the sites and materials compound(s) including area(s) identified for the storage of construction refuse;

(b) location of areas for construction site offices and staff facilities;

(c) details of site security fencing and hoardings;

(d) details of on-site car parking facilities for site workers during the course of construction;

(e) details of the timing and routing of construction traffic to and from the construction site and associated directional signage;

(f) measures to obviate queuing of construction traffic on the adjoining road network;

(g) measures to prevent the spillage or deposit of clay, rubble or other debris;

(h) alternative arrangements to be put in place for pedestrians and vehicles in the case of the closure of any public right of way during the course of site development works;

(i) details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels;

(j) containment of all construction-related fuel and oil within specially constructed bunds to ensure that fuel spillages are fully contained (such bunds shall be roofed to exclude rainwater);

(k) disposal of construction/demolition waste and details of how it is proposed to manage excavated soil, including compliance with 2006 Best Practice Guidelines on the Preparation of Waste Management Plans for Construction and Demolition Projects, Department of the Environment, Heritage and Local Government;

(l) a water and sediment management plan, providing for means to ensure that surface water runoff is controlled such that no silt or other pollutants enter local water courses or drains;

Policy Objectives Air Quality

AQ 1 Ambient Air Quality

To promote the preservation of best ambient air quality compatible with sustainable development in accordance with the EU Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive (2008/50/EC) and ensure that all air emissions associated with new developments are within Environmental Quality Standards as set out in the Air Quality Standards Regulations 2011 (SI No. 180 of 2011) (or any updated/superseding documents).

AQ 2 Assessment of Air Quality

To require developments which would have the potential to have adverse impacts on air quality to carry out assessments of the impact of the development on air quality.

AQ 3 Air Quality Mitigation Measures

To require the use of appropriate mitigation measures such as dust dampeners to minimise the potential impacts of developments on air quality.

AQ 4 Air Purification

Galway County Council shall encourage landscaping and deciduous tree planting in an environmentally sensitive manner within towns and villages as a means of air purification, the filtering of suspended particles and the improvement of their micro-climate.

Policy Objectives Noise Pollution

NP3 Noise Impact Assessments

To require an assessment of impact of the development on noise levels, having regard to the provisions of the Environmental Protection Agency Acts 1992 and 2003 and the EPA Noise Regulations 1994 when assessing planning application.

NP 4 Noise Pollution and Regulation

Restrict development proposals causing noise pollution in excess of best practice standards and regulate and control activities likely to give rise to excessive noise, other than those activities which are regulated by the EPA.

NP 5 Noise Mitigation Measures

Require activities likely to give rise to excessive noise to install noise mitigation measures and monitors. The provision of a noise audit may be required where appropriate.

Policy Objectives Light Pollution

LP 1 Lighting Schemes

To require that all developments shall ensure lighting schemes are designed so that excessive light spillage is minimised to ensure light pollution in the surrounding environment including residential amenity, wildlife and near public roads is limited. Such lighting schemes shall be submitted and agreed with the Planning Authority.

LP 2 Lighting and Climate Action

To require the use of low energy LED (or equivalent) lighting in support of Climate Action.

LP 3 Dark Skies

To encourage the maintenance of dark skies in rural areas and to limit light pollution in urban and rural areas.

Policy Objectives Soil Quality

SQ 1 Soil Impact Assessments

Ensure good soil quality throughout the county by requiring developments of a certain nature (as specified in the relevant environmental legislation) to carry out assessments of the impact of the development on soil quality.

SQ 2 Soil Protection Measures

To ensure that adequate soil protection measures are undertaken where appropriate.

SQ 3 Soil Protection, Contamination and Remediation

Adequate and appropriate investigations shall be carried out into the nature and extent of any soil and groundwater contamination and the risks associated with site development work, where brownfield development is proposed. All undeveloped, contaminated sites shall be remediated to internationally accepted standards prior to redevelopment. All applications shall be accompanied by a report from a qualified, expert consultant remediation incorporating international best practice and expertise on innovative ecological restoration techniques including specialist planting and green initiatives that create aesthetically improved sites, healthy environments and contribute to the provision of new green open spaces as integral parts of newly created areas. Treatment/management of any contaminated material shall comply as appropriate with the Waste Management Act 1996 (waste licence, waste facility permit), as amended, and under the EPA Act 1992 (Industrial Emissions licensing, in particular the First Schedule, Class 11 Waste), as amended. These measures will ensure that contaminated material will be managed in a manner that removes any risk to human health and ensures that the end use will be compatible with any risk.

Policy Objectives Natural Heritage and Biodiversity

NHB 1 Natural Heritage and Biodiversity of Designated Sites, Habitats and Species

Protect and where possible enhance the natural heritage sites designated under EU Legislation and National Legislation (Habitats Directive, Birds Directive, European Communities (Birds and Natural Habitats) Regulations 2011 and Wildlife Acts) and extend to any additions or alterations to sites that may occur during the lifetime of this plan.

Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under European legislation (Habitats and Birds Directive) and protected under national Legislation (European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477 of 2011), Wildlife Acts 1976-2010 and the Flora Protection Order (SI 94 of 1999).

Support the protection, conservation and enhancement of natural heritage and biodiversity, including the protection of the integrity of European sites, that form part of the Natura 2000 network, the protection of Natural Heritage Areas, proposed Natural Heritage Areas, Ramsar Sites, Nature Reserves, Wild Fowl Sanctuaries (and other designated sites including any future designations) and the promotion of the development of a green/ ecological network.

NHB 2 European Sites and Appropriate Assessment

To implement Article 6 of the Habitats Directive and to ensure that Appropriate Assessment is carried out in relation to works, plans and projects likely to impact on European sites (SACs and SPAs), whether directly or indirectly or in combination with any other plan(s) or project(s). All assessments must be in compliance with the European Communities (Birds and Natural Habitats) Regulations 2011. All such projects and plans will also be required to comply with statutory Environmental Impact Assessment requirements where relevant.

NHB 3 Protection of European Sites

No plans, programmes, or projects etc. giving rise to significant cumulative, direct, indirect or secondary impacts on European sites arising from their size or scale, land take, proximity, resource requirements, emissions (disposal to land, water or air), transportation requirements, duration of construction, operation, decommissioning or from any other effects shall be permitted on the basis of this Plan (either individually or in combination with other plans, programmes, etc. or projects.*

* Except as provided for in Article 6(4) of the Habitats Directive, viz. There must be: (a) no alternative solution available; (b) imperative reasons of overriding public interest for the plan to proceed; and (c) adequate compensatory measures in place.

NHB 4 Ecological Appraisal of Biodiversity

Ensure, where appropriate, the protection and conservation of areas, sites, species and ecological/networks of biodiversity value outside designated sites. Where appropriate require an ecological appraisal, for development not directly connected with or necessary to the management of European Sites, or a proposed European site and which are likely to have significant effects on that site either individually or cumulatively.

NHB 5 Ecological Connectivity and Corridors

Support the protection and enhancement of biodiversity and ecological connectivity in non-designated sites, including woodlands, trees, hedgerows, semi-natural grasslands, rivers, streams, natural springs, wetlands, stonewalls, geological and geo-morphological systems, other landscape features and associated wildlife areas where these form part of the ecological network and/or may be considered as ecological corridors in the context of Article 10 of the Habitats Directive.

NHB 6 Implementation of Plans and Strategies

Support the implementation of any relevant recommendations contained in the National Heritage Plan 2030, the National Biodiversity Plan, the All-Ireland Pollinator Plan and the National Peatlands Strategy and any such plans and strategies during the lifetime of this plan.

NHB 7 Mitigation Measures

Require mitigating measures in certain cases where it is evident that biodiversity is likely to be affected. These measures may, in association with other specified requirements, include establishment of wildlife areas/corridors/parks, hedgerow, tree planting, wildflower meadows/marshes and other areas. With regard to residential development, in certain cases, these measures may be carried out in conjunction with the provision of open space and/or play areas.

NHB 9 Protection of Bats and Bats Habitats

Seek to protect bats and their roosts, their feeding areas, flight paths and commuting routes. Ensure that development proposals in areas which are potentially important for bats, including areas of woodland, linear features such as hedgerows, stonewalls, watercourses and associated riparian vegetation which may provide migratory/foraging uses shall be subject to suitable assessment for potential impacts on bats. This will include an assessment of the cumulative loss of habitat or the impact on bat populations and activity in the area and may include a specific bat survey. Assessments shall be carried out by a suitably qualified professional and where development is likely to result in significant adverse effects on bat populations or activity in the area, development will be prohibited or require mitigation and/or compensatory measures, as appropriate. The impact of lighting on bats and their roosts and the lighting up of objects of cultural heritage must be adequately assessed in relation to new developments and the upgrading of existing lighting systems.

NHB 10 NPWS & Integrated Management Plans

Article 6(1) of the Habitats Directive requires that Member States establish the necessary conservation measures for European sites involving, if need be, appropriate management plans specifically designed for the sites or integrated into other development plans. The NPWS's current priority is to identify site specific conservation objectives; management plans may be considered after this is done. Where Integrated Management Plans are being prepared by the NPWS for European sites (or parts thereof), the NPWS shall be engaged with in order to ensure that plans are fully integrated with the Plan and other plans and programmes, with the intention that such plans are practical, achievable and sustainable and have regard to all relevant ecological, cultural, social and economic considerations, including those of local communities.

Policy Objective Water Resources

WR 1 Water Resources

Protect the water resources in the plan area, including rivers, streams, lakes, wetlands, springs, turloughs, surface water and groundwater quality, as well as surface waters, aquatic and wetland habitats and freshwater and water dependant species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the River Basin District Management Plan 2018 – 2021 and other relevant EU Directives, including associated

national legislation and policy guidance (including any superseding versions of same) and also have regard to the Freshwater Pearl Mussel Sub-Basin Management Plans.

WR 2 River Basin Management Plans

It is a policy objective of the Planning Authority to implement the programme of measures developed by the River Basin District Projects under the Water Framework Directive in relation to: Surface and groundwater interaction, Dangerous substances, Hydro morphology, Forestry, On site wastewater treatment systems, Municipal and industrial discharges, Urban pressures, Abstractions.

Policy Objectives Invasive Species

IS 1 Control of Invasive and Alien Invasive Species

It is a policy objective of the Planning Authority to support measures for the prevention and eradication of invasive species.

IS 2 Invasive Species Management Plan

Ensure that proposals for development do not lead to the spread or introduction of invasive species. If developments are proposed on sites where invasive species are currently or were previously present, an invasive species management plan will be required. A landscaping plan will be required for developments near water bodies and such plans must not include alien invasive species.

Policy Objectives Flood Risk Management

FL 6 Surface Water Drainage and Sustainable Drainage Systems (SuDs)

Maintain and enhance, as appropriate, the existing surface water drainage system in the county. Ensure that new developments are adequately serviced with surface water drainage infrastructure and promote the use of Sustainable Drainage Systems in all new developments. Surface water run-off from development sites will be limited to predevelopment levels and planning applications for new developments will be required to provide details of surface water drainage and sustainable drainage systems proposals.

FL 7 Protection of Waterbodies and Watercourses

Protect waterbodies and watercourses within the county from inappropriate development, including rivers, streams, associated undeveloped riparian strips, wetlands and natural floodplains. This will include protection buffers in riverine, wetland and coastal areas as appropriate.

FL 11 FRA and Environmental Impact Assessment (EIA)

Flood risk may constitute a significant environmental effect of a development proposal that in certain circumstances may trigger a sub-threshold EIA. FRA should therefore be an integral part of any EIA undertaken for projects within the county.

FL 18 Inappropriate Development on Flood Zones

Where a development/land use is proposed within any area subject to this objective the development proposal will need to be accompanied by a detailed hydrological assessment and robust SUDS design which demonstrates the capacity to withstand potential flood events to maintain water quality and avoid potential effects to ecological features.

• Any development proposals should be considered with caution and will be required to comply with 'The Planning System and Flood Risk Management Guidelines for Planning Authorities/Circular PL2/2014' & the associated Development Management Justification Test.

• Climate Change should be duly considered in any development proposal.

• Protect the riparian zones of watercourse systems throughout the plan area through a general 10 metre protection buffer from rivers within the plan area as measured from the near riverbank, (this distance may be increased and decreased on a site by site basis, as appropriate).

• Any development proposals submitted for this site will require a detailed ecological report (s), carried out by suitably qualified personnel for the purposes of informing Appropriate Assessment Screening by Galway County Council, the competent authority.

• The relevant lands will be outlined and flagged with a symbol on the land use zoning map and on the GIS system of Galway County Council so that staff and the public are aware of the special conditions/constraints attached.

• A briefing will be provided to relevant staff within Galway County Council on the special conditions and constraints on relevant lands

Galway City Council City Development Plan 2023-2029

Policy 5.1 Green Network and Biodiversity

1. Support sustainable use and management of areas of ecological importance, parks and recreation amenity areas and facilities through an integrated green network policy approach in line with the Galway Recreation and Amenity Needs Study and where superseded by the Green Space Strategy, where it can be demonstrated that there will be no adverse impacts on the integrity of European sites.

3. Support the retention and enrichment of biodiversity throughout the city in recognition of the need to protect and restore biodiversity to increase the resilience of natural and human systems to climate change.

4. Support the implementation of the National Biodiversity Action Plan (NBAP) 2017- 2021 (and any subsequent NBAP) and the All-Ireland Pollinator Plan (2021-2025) and support the actions of the City Council's Heritage Plan 2016-2021 and Biodiversity Action Plan 2014-2024 and updates relating to the promotion of ecological awareness, biodiversity and best practices.

5. Support climate action through implementation of nature based solutions that enhance biodiversity in the green network, including measures such as tree planting, SuDS, use of green infrastructure. Such measures will be informed by the Green Space Strategy.

6. Promote the integration of nature based solutions and green/blue infrastructure in all new developments as appropriate to contribute to the city's climate resilience and require large scale development proposals to include a green infrastructure and biodiversity plan.

8. Achieve a sustainable balance between meeting future recreational needs (both passive and active) and the preservation of the city's biodiversity and ecological and cultural heritage.

11. Support the Healthy Green Spaces initiative which seeks to improve the quality of green spaces in the city, to enhance climate change resilience, aesthetic value, biodiversity and improve public health and wellbeing.

15. Co-operate with the NPWS, landowners and stakeholders in the preparation and implementation of management plans for designated European sites.

23. Continue to implement measures to increase and restore biodiversity in open spaces and road verges through the no mow grass management initiative, and ornamental pollinator projects such as the perennial bulb planting scheme.

Policy 5.2 Protected Spaces: Sites of European, National and Local Ecological Importance

1. Protect European sites that form part of the Natura 2000 network (including Special Protection Areas and Special Areas of Conservation) in accordance with the requirements in the EU Habitats Directive (92/43/EEC), EU Birds Directive (2009/147/EC) and associated national legislation.

2. Ensure that all plans or projects within the Plan area will only be authorised and / or supported after the competent authority has ascertained based on scientific evidence, screening for appropriate assessment and /or a Habitats Directive Assessment that:

i. The plan or project will not give rise to an adverse direct, indirect or secondary effect on the integrity of any European site (either individually or in combination with other plans or projects); or

ii. The plan or project will have an adverse effect on the integrity of any European site (that does not host a priority natural habitat type/and or a priority species) but there are no alternative solutions and the plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature. In this case, it will be a requirement to follow procedures set out in

legislation and agree and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000; or

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

2000.

3. Protect, conserve and promote the nationally designated sites of ecological importance, including existing and proposed Natural Heritage Areas(NHA and pNHAs) in the city.

4. Protect, conserve and support the development of an ecological network throughout the city which will improve the ecological coherence of the Natura 2000 network in accordance with Article 10 of the Habitats Directive.

5. Continue to recognise sites of County Geological Interest in the city identified by the Geological Survey of Ireland (GSI) and protect such sites from inappropriate development and protect geological NHAs should they become designated and notified to the Local Authority, during the lifetime of the Plan.

6. Protect LocalBiodiversityAreas,wildlifecorridorsandsteppingstonesbasedon the Galway Biodiversity Action Plan 2014-2024 and support the biodiversity of the city in the Council's role/responsibilities, works and operations, where appropriate.

7. Encourage, in liaison with the NPWS, the sustainable management of features which are important for the ecological coherence of the network of European sites and essential, by their linear or continuous nature or as stepping stones for the migration, dispersal and genetic exchange of wild species.

8. Support the actions of the Galway City Council Heritage Plan 2016-2021 and any update and Biodiversity Action Plan 2014-2024 relating to the promotion of ecological awareness and biodiversity, the protection of wildlife corridors and the prevention of wildlife habitat fragmentation.

9. Co-operate with the NPWS, landowners and stakeholders in the preparation and implementation of management plans for designated sites and support conservation objectives of lands within Designated Sites for nature conservation Natura 2000 (SAC/SPA) and NHA sites.

10. Protect and conserve rare and threatened habitats and their key habitats, (wherever they occur) listed on Annex I and Annex IV of the EU Habitats Directive (92/43EEC) and listed for protection under the Wildlife Acts 1976-2000 and plant species listed in the Flora Protection Order 2015.

11. Ensure that plans and projects with the potential to have a significant impact on European sites (SAC or SPA) whether directly, indirectly or in combination with other plans or projects are subject to Appropriate Assessment, under Article 6 of the Habitats Directive (92/43EEC) and associated legislation and guidelines, to inform decision making.

12. Achieve a sustainable balance between meeting future recreational needs (both passive and active) and the protection of the city's ecological heritage.

13. Support the inclusion of natural features, such as trees, hedgerows, stone walls, ponds and the use of green design features and the incorporation of biodiversity measures in developments layouts.

14. Support and implement measures to control and manage alien/invasive species, where appropriate in accordance with the EU (Birds and Natural Habitats) Regulations 2011.

15. Protect the ecological integrity of statutory Nature Reserves, Wildfowl Sanctuaries refuges for fauna and Annex 1 Habitats.

Policy 9.2 Water Quality

1. Support the actions of the River Basin Management Plan 2018-2021 and future River Basin Management Plan in order to promote and achieve a restoration of good status, reduce chemical pollution and prevent deterioration of surface, coastal and groundwater quality, where appropriate.

5. Protect the city's groundwater resource in accordance with the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (Groundwater) Regulations, 2010 (SI No. 9 of 2010) or any updated legislation and limit any development which has potential to impact the objectives for protection, enhancement and/or restoration.

6. Minimise and control discharges to inland surface water bodies, in particular Terryland/Sandy River, groundwater and coastal waters to prevent water pollution and protect the environment.

Policy 9.4 Sustainable Urban Drainage Systems (SuDS)

1. Ensure the use of Sustainable Urban Drainage Systems (SuDS) and sustainable surface water drainage management, wherever practical in the design of development to enable surface water run-off to be managed as near to its source as possible and achieve wider benefits such as sustainable development, water quality, biodiversity local amenity and climate adaptation.

2. Promote the use of green infrastructure e.g. green roofs, green walls, bioswales, planting and green spaces for surface water retention purposes as an integrated part of SUDS and to deliver all the ancillary benefits.

Policy 9.6 Air Quality and Noise

1. Maintain air quality to a satisfactory standard by regulating and monitoring atmospheric emissions in accordance with EU policy directives on air quality and Ambient Air Quality and Cleaner Air for Europe (CAFÉ) Directive (2008/50/EC) by promoting and supporting initiatives to reduce air pollution and by increasing the use of sustainable transport modes and developing urban woodlands, encouraging tree planting, conserving and creating green open space.

2. Ensure the design of development incorporates measures to minimise noise levels in their design and reduce the emission and intrusion of any noise or vibration which might adversely impact on amenities, in particular residential amenities where appropriate.

3. Consider the details of Galway City Council Noise Action Plan 2019-2023 in the assessment and design of relevant development applications in the interests of protecting future amenity.

4. Implement environmental noise mitigation measures as outlined in Galway City Council Noise Action Plan 2019-2023.

5. Promote best practice in the implementation of radon prevention and mitigation measures in partnership with relevant agencies.

Policy 9.7 Light Pollution

1. Ensure the design of external lighting minimises the incidence of light pollution, glare and spillage into the surrounding environment and has due regard to the visual and residential amenities of surrounding areas.

2. Require all new developments to be designed with the inclusion of energy efficient lighting schemes.

3. Lighting on linear infrastructures, including greenways and blueways, should be carefully managed to ensure coherence of the supporting habitats of European sites, as outlined in Article 10 of the Habitats Directive

4. Ensure the design of external lighting does not have an adverse impact on wildlife and ecosystems and encourage the use of dark zones and sensor lighting where feasible.

Policy 9.8 Waste Management

7. Ensure that development on contaminated lands include appropriate remediation measures.

Policy 9.10 Energy and Associated Infrastructure

3. Ensure that the infrastructural renewal and development of energy networks avoid negative impacts on European sites and adhere to the requirements of Article 6 of the Habitats Directive (92/43 EEC).

Galway County Heritage and Biodiversity Plan 2017-2022

3. Research and Information

NH 3.1 Collect, collate and procure data and knowledge on biodiversity and natural heritage in County Galway to strengthen the knowledge base of decision makers.

NH 3.2 Maintain and develop links with researchers, educational institutes, museums, libraries.

NH 3.4 Promote and develop biodiversity and natural heritage mapping e.g. geological heritage sites and freshwater and marine heritage sites.

NH 3.5 Seek to share information with relevant organisations and agencies.

4. Galway County Council: People, Property and Works

NH 4.1 Integrate biodiversity and natural heritage into relevant aspects of the work of Galway Co Council.

NH 4.2 Policy: Ensure biodiversity and natural heritage are considered at earliest stages in the development of new plans and strategy documents.

NH 4.3 Projects: Promote the integration of biodiversity into work plans and developments at earliest (design) stage of projects.

NH 4.4 Planning – streamline systems for biodiversity in development applications.

NH 4.5 Develop resources and supports to inform decision makers.

NH 4.6 Seek to establish a full time biodiversity officer position in Galway County Council.

NH 4.7 Seek the employment of full-time ecologists in Galway County Council.

NH 4.8 Galway County Council to take a proactive role in implementing legislative requirements and national strategies for heritage/biodiversity such as: National Pollinator Plan, National habitat and species management plans and the National Biodiversity Plan.

NH 4.9 Implement the Galway County Invasive Species Strategy.

NH 4.10 Promote biodiversity led management of parks and green spaces including verges and hedgerows, drains, ditches and rivers. (Participate in Green Parks scheme).

NH 4.11 Conduct an audit of biodiversity of Galway County Council owned properties.

NH 4.12 Use sustainable and environmentally friendly materials in publications, developments and events.

Galway City Biodiversity Action Plan 2014 - 2024

Galway City Biodiversity Action Plan – Actions

9 Promote creation of new wildlife habitats in developments including housing estates, industrials sites and golf courses

• Examine the feasibility of developing a reward system for developers who make an effort to protect and/ or enhance biodiversity in developments.

• Raise awareness of the economic, social and environmental benefits of having local biodiversity areas within new developments; provide examples from other jurisdictions.

11 Establish a network of Local Biodiversity Areas and associated wildlife corridors (based on the twelve areas already identified in the Galway City Habitats Inventory 2005). See Appendix 2.

• Resurvey proposed Local Biodiversity Areas; map and list these areas in the Galway City Development Plan.
• Resurvey wildlife corridors proposed by Kindermann (2004), map and list in the Galway City Development.
• Seek to identify additional wildlife corridors.

• Develop and publish management plans for each of the Local Biodiversity Areas.

• Monitor and report on the condition of the Local Biodiversity Areas on an annual basis.

• Recommend Development Plan policy to ensure that any new developments that may impact on the Local Biodiversity Areas, and associated wildlife corridors, must complete an appropriate environmental assessment.

• Investigate further mechanisms for protecting these areas.

• Develop criteria for the inclusion of any additional Local Biodiversity Areas.

• Adjust grass cutting schemes in public areas to encourage the establishment and survival of wildflowers.

12 Tree survey and preservation

• Seek to appoint a Tree Officer to conduct survey of trees within city, propose Tree Protection Order, promote the protection and retention of trees, and to offer advice to those working with or near trees.

• Mapping and tagging of all trees in urban areas for creation of tree database.

13 Key habitat: Urban woodlands and hedgerows

• Develop management plans for all the urban woodlands in Galway City.

• Develop woodland recreation-use policies.

• Promote participation in any future Forest Service Neighbourwood Schemes.

• Promote the retention of hedgerows, recognising their importance as wildlife corridors.

• Engage with tree/forest organisations to promote tree planting and management

• Promote the retention of dry stone walls

14 Key habitat: Wetlands and watercourses

• Develop management plans for wetland areas along the Corrib system and the Terryland River.

• Promote the adoption of a policy that aims for no net loss of wetlands within the city.

• Conduct a survey of wetland invertebrates e.g. groups that are indicative of water quality such as water beetles and marsh flies.

• Develop guidelines to promote best practice in relation to works that may impact on freshwater lakes, turloughs, rivers and waterways.

• Initiate preparation of river conservation management plan for the Corrib system in consultation with stakeholders.

• Survey fish in streams that may be impacted upon by urbanisation.

• Investigate means to improve access to Lough Corrib for Sea Lamprey.

15 Key habitat: Exposed limestone habitats

• Map remaining area of exposed limestone rock.

• Develop management plans for these areas.

• Protect remaining area from quarrying.

16 Key Habitat: Peatlands

• Develop habitat management plan for peatlands in the city, including survey and educational information for landowners.

• Survey especially for the protected Marsh Fritillary.

16 Key zone: Coastal zone

• Promote sustainable use of the marine environment.

• Ensure appropriate assessment conducted for any proposed works within the coastal zone.

• Biodiversity survey and habitat mapping of coastal zone, including public awareness campaign.

• Habitat enhancement on Mutton Island causeway and proposed new docks

17 Key species group: Bats

• Ensure foraging grounds of bats are protected e.g. urban woodlands, wetlands and hedgerows.

• Ensure a bat survey is carried out before old structures are developed or restored in order to consider possible mitigation measures.

• Ensure public buildings have one aspect unlit to allow bats to roost.

• Bridge repair work preceded by bat survey and bat access points conserved.

• Bat box schemes including workshops

• Develop species action plan for *Rhinolophus hipposideros* (lesser horseshoe bat)

18 Key species group: Birds

• Ensure adequate protection of important bird habitats in and around the city waterways, urban woodlands and hedgerows.

• Develop guidelines in relation to works in or adjacent to waterways, woodlands and hedgerows in relation to bird conservation.

• Ensure a bird survey is carried out before old structures are developed or restored in order to consider possible mitigation measures.

Key species group: Small mammals

• Continue monitoring small mammal populations in Terryland Forest Park and adjacent wildlife corridors

Key Species: Common swift (*Apus apus*)

• Identify and protect existing nesting sites, identify suitable new nesting sites and install swift nest boxes with simulated calls.

• Encourage developers to install 'swift bricks' into new developments

Key Species: Common seal (*Phoca vitulina*)

• Develop local species action plan

Key Species: Red squirrel (*Sciurus vulgaris*)

• Survey areas with reported sightings, such as Merlin Woods

20 Develop appropriate strategies for preventing the introduction and spread of invasive alien species

• Continue to raise awareness of the threat of invasive alien species to biodiversity and the environment. Examples of problem species include the zebra mussel, Japanese knotweed and African waterweed.

• Develop a programme for eradicating invasive aliens in co-operation with other relevant agencies.

• Encourage members of the public to record sightings of alien invasives to http://www.invasivespeciesireland.com/alien-watch/

• Support the IFI *Lagarosiphon* and *Dreissena* control programmes

Graveyards and Historic sites

• Incorporate biodiversity in the management aims of graveyards, monuments and archaeological sites.

Support implementation of national Species and Habitat Action Plans within Galway City, as appropriate, and current National Biodiversity Action Plan

Appendix III NBDC records of SCI Bird Species within a 2km radius of the Proposed Development Site

Species	BoCCI	Annex I	SCI
Bar-tailed Godwit (*Limosa lapponica*)	Red	Yes	Yes
Redshank (*Tringa totanus*)	Red	No	Yes
Common Scoter (*Melanitta nigra*)	Red	No	Yes
Dunlin (*Calidris alpina*)	Red	No	Yes
Golden Plover (*Pluvialis apricaria*)	Red	Yes	Yes
Gadwall (*Anas strepera*)	Red	No	Yes
Hen Harrier (*Circus cyaneus*)	Red	Yes	Yes
Shoveler (*Anas clypeata*)	Red	No	Yes
Red-breasted Merganser (*Mergus serrator*)	Red	No	Yes
Ringed Plover (*Charadrius hiaticula*)	Red	No	Yes
Razorbill (*Alca torda*)	Red	No	Yes
Arctic Tern (*Sterna paradisaea*)	Amber	Yes	Yes
Common Tern (*Sterna hirundo*)	Amber	No	Yes
Black headed gull (*Chroicocephalus ridibundus)*	Amber	No	Yes
Brent goose (*Branta bernicla*)	Amber	No	Yes
Curlew (*Numenius Arquata*)	Amber	No	Yes
Eurasian Wigeon (*Anas Penelope*)	Amber	No	Yes
Cormorant (*Phalacrocorax carbo*)	Amber	No	Yes
Common Gull (*Larus canus*)	Amber	No	Yes
Sandwich Tern (*Sterna sandvicensis*)	Amber	Yes	Yes

Appendix IV Bird Species Recorded during the Winter Birds Survey 2024

Date	Common name	Latin name	BTO Code	Max Count	Activity	Height Band	End Flight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	3	Flying over	20-100m	Out of sight
05/03/2024	Oystercatcher	*Haematopus ostralegus*	OC	7	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	2	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	2	Flying over	20-100m	Out of sight
05/03/2024	Mallard	*Anas platyrhnychos*	MA	1	Landing	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
05/03/2024	Herring Gull	*Larus argentatus*	HG	2	Flying over	20-100m	Out of sight
13/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
13/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight
13/03/2024	Black-headed Gull	*Chroicocephalus ridibundus*	BH	3	Flying over	20-100m	Out of sight
13/03/2024	Black-headed Gull	*Chroicocephalus ridibundus*	BH	3	Flying over	20-100m	Out of sight
13/03/2024	Black-headed Gull	*Chroicocephalus ridibundus*	BH	3	Flying over	20-100m	Out of sight
13/03/2024	Black-headed Gull	*Chroicocephalus ridibundus*	BH	3	Flying over	20-100m	Out of sight
13/03/2024	Herring Gull	*Larus argentatus*	HG	3	Flying over	20-100m	Out of sight

Date	Common name	Latin name	BTO Code	Max Count	Activity	Height Band	End Flight
13/03/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	20-100m	Out of sight

Appendix V Species Recorded during the 2024 Breeding Birds survey across development site.

Date	Common Name	Latin Name	BTO_Code	Max Count	Activity	BOCCI	SCI	Annex 1
29/05/2024	Goldfinch	*Carduelis carduelis*	GO	1	Singing male/breeding calls	Green	N	N
29/05/2024	Robin	*Erithacus rubecula*	R.	1	Singing male/breeding calls	Green	N	N
29/05/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
29/05/2024	Blue Tit	*Cyanistes caeruleus*	BT	1	Singing male/breeding calls	Green	N	N
29/05/2024	House Sparrow	*Passer domesticus*	HS	1	Singing male/breeding calls	Amber	N	N
29/05/2024	Herring Gull	*Larus argentatus*	HG	1	Flying over	Amber	Y	N
18/04/2024	Goldfinch	*Carduelis carduelis*	GO	2	Pair in suitable nesting habitat	Green	N	N
18/04/2024	Blackbird	*Turdus merula*	B.	1	Singing male/breeding calls	Green	N	N
18/04/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
18/04/2024	Willow Warbler	*Phylloscopus trochilus*	WW	1	Singing male/breeding calls	Amber	N	N
18/04/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
18/04/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
18/04/2024	Willow warbler	*Phylloscopus trochilus*	WW	1	Singing male/breeding calls	Amber	N	N
18/04/2024	Goldfinch	*Carduelis carduelis*	GO	2	Singing male/breeding calls	Green	N	N
18/04/2024	Blue Tit	*Cyanistes caeruleus*	BT	1	Singing male/breeding calls	Green	N	N
18/04/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
18/04/2024	Wren	*Troglodytes troglodytes*	WR	1	Singing male/breeding calls	Green	N	N
18/04/2024	Willow Warbler	*Phylloscopus trochilus*	WW	1	Singing male/breeding calls	Amber	N	N

Date	Common Name	Latin Name	BTO_Code	Max Count	Activity	BOCCI	SCI	Annex 1
18/04/2024	House Sparrow	*Passer domesticus*	HS	2	Singing male/breeding calls	Amber	N	N
18/04/2024	Dunnock	*Prunella modularis*	D	1	Singing male/breeding calls	Green	N	N
18/04/2024	Dunnock	*Prunella modularis*	D.	1	Singing male/breeding calls	Green	N	N