MKO Planning and Environmental Consultants

Ecological Impact Assessment

Kingston Park and Millers Lane - Public Park and Urban Realm Project

DOCUMENT DETAILS

Client:	**Galway County Council**
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Planning and Environmental Consultants

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1. INTRODUCTION

1.1 Background

MKO has been commissioned to conduct an Ecological Impact Assessment (EcIA) for the Proposed Development and upgrade of Kingston Park and Millers Lane in Knocknacarra, Galway.

The EcIA includes an accurate description of all aspects of the proposed development during construction and operation. The development is considered permanent and should decommissioning be required, it will be the subject of a separate assessment.

It then provides a comprehensive description of the baseline ecological environment, which is based on an appropriate level of survey work that was carried out in accordance with the most appropriate guidelines and methodologies. The EcIA then completes a thorough assessment of the impacts of the proposed development on biodiversity. Where likely ecologically significant effects are identified, measures are prescribed to avoid or minimise or compensate for such effects.

1.2 Statement of Authority

This report has been prepared by Mairead Kavanagh (B.Sc.) and reviewed by Pat Roberts (B.Sc.)Mairead has over two years' professional experience in ecological consultancy. Pat has over nineteen years' professional experience in ecological consultancy respectively. Baseline ecological surveys were carried out by Mairead Kavanagh of MKO and accompanied by Cormac Roberts. Wintering bird surveys were carried out by MKO ecologists Mairead Kavanagh, Deepali Mooloo (B.Sc., M.Sc.), Fiona Keelin (B.Sc, M.Sc.), Katy Beckett (B.Sc, M.Sc), Ciara Lynn-Sheehan (B.Sc) and Caití Farren (B.Sc). Breeding Bird surveys were carried out by Mairead Kavanagh. and Chandra Walter (B.Sc., M.Sc.) of MKO. All surveyors possess the relevant academic qualifications and are competent in undertaking the ecological surveys in which they were involved.

1.3 Relevant Guidance

In addition, the guidelines listed below were consulted in the preparation of this document to provide the scope, structure and content of the assessment:

- Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine (CIEEM, 2018).
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022).
- Guidelines for assessment of Ecological Impacts of National Road Schemes, (NRA, 2009).
- CIEEM (2017) Guidelines on Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester).

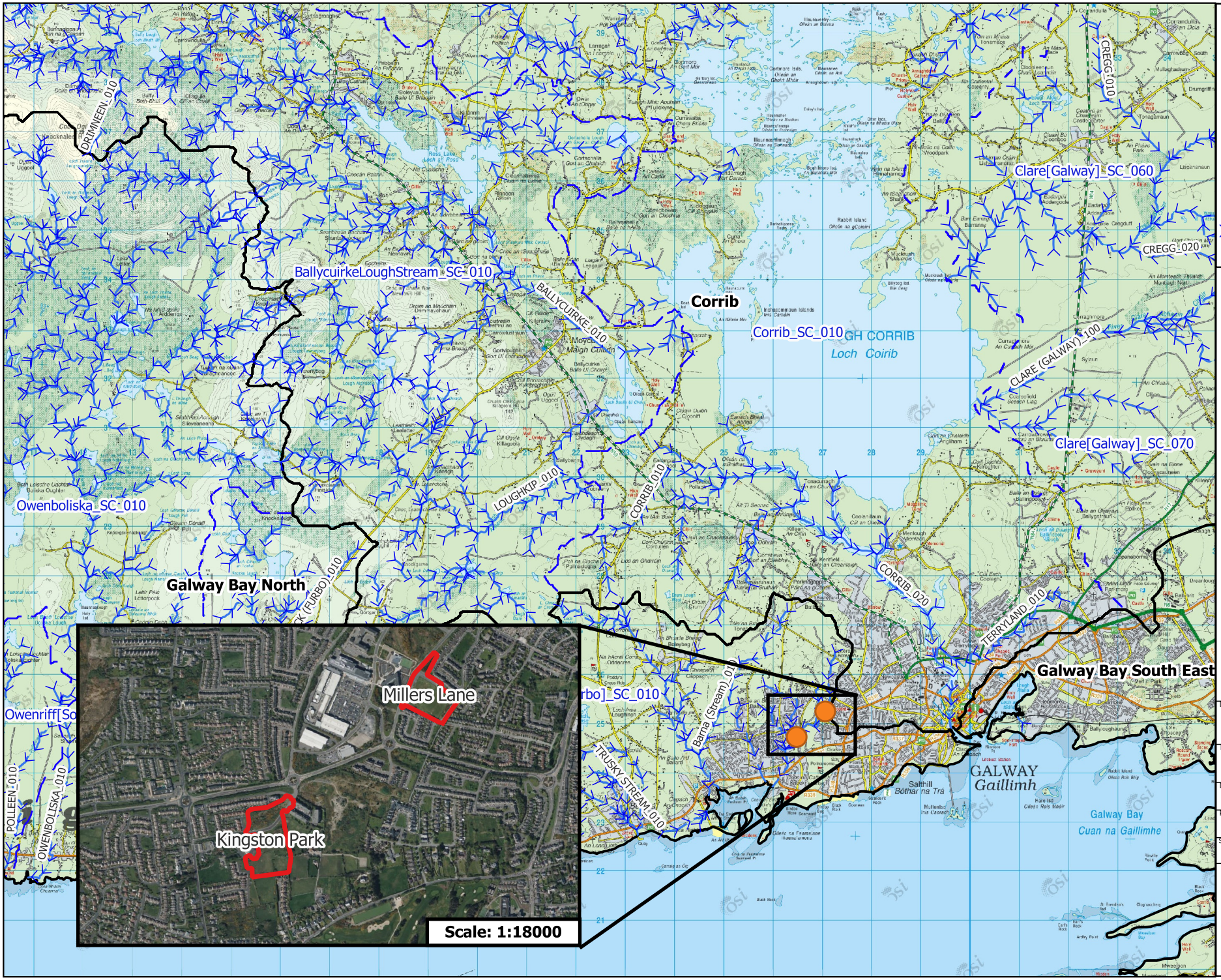
2. DESCRIPTION OF PROPOSED DEVELOPMENT

2.1 Site Location

The site of the Proposed Development is located in two areas, Kingston Park (ITM 526448.98513825, 724746.52087687) and Millers Lane (ITM 527031.78106342, 725263.57457878). Kingston Park is accessed via a local road referred to as the Altan Road. It is located adjacent to the St. John the Apostle, Knocknacarra National School and existing residential buildings and a proposed large scale residential development.

Millers Lane is accessed via the L-5000 Gort na Bró Road, which runs along the western boundary of the site. It is located adjacent to the Gateway shopping centre and Gaelscoil Mhic Amhlaigh Primary School.

The sites are located in the townlands of Clybaun and Rahoon, Galway City. approximately 2.9km west of the centre of Galway City. The site of Millers Lane is 2.44 Ha and the Kingston Park is 4.43 Ha



Drawing Title

Site Location

Project Title	Kingston Park and Millers Lane - Public Park and Urban Realm Project
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2.2 Characteristics of Proposed Development

The proposed development consists of the development of a public park at Kingston Park, and the redevelopment of an existing public park at Miller's Lane, located in the Clybaun and Rahoon townlands respectively.

2.2.1 Development Description

The refurbishment and expansion of the existing park (site area 2.44Ha) located on Millers Lane, including:

I. Relocation and replacement of the 2 no. existing football pitches with: 1 no. new 4G synthetic turf multi-sport pitch (designed to soccer pitch dimensions) with associated fencing and 6 no. floodlights; and 1 no. new 2G sand-filled synthetic multi-sport pitch (designed to hockey pitch dimensions) with associated fencing and 6 no. floodlights.
II. New two-storey, multi-functional building which includes public and sports team changing rooms, showers and toilets; multi-purpose sports hall; multi-purpose activity rooms; kitchenette; 2 no. viewing terraces; first-aid room; store rooms; plant rooms; reception area; and roof-mounted solar panels.
III. New public spaces and amenities including fenced children's play areas; internal paths; multi-use games area; climbing wall; calisthenics area; public plaza; pitch spectator areas; equipment storage shed; green space for passive recreation; public lighting; and public seating.
IV. Extensive landscape planting (including native genus and species) and nature-based drainage measures including pollinator-friendly raingarden/ bioretention areas and reinforced grass paving, as well as planting areas with typologies including native and naturalised wooded areas, avenue tree planting, clipped hedges, short-flowering meadow, and pollinator-friendly perennials.
V. Relocated vehicular access on the L-5000 Road; 2 no. new active travel accesses from the L-5000 Road; and enhanced pedestrian / cyclist access from Millers Lane.
VI. 27 no. car parking spaces (2 no. standard EV charging spaces, 1 no. accessible space, 1 no. combined EV and accessible space, 1 no. family space, and 1 no. age-friendly space), 2 no. coach drop-off spaces with automated access control, 3 no. motorcycle spaces, and 64 no. cycle spaces (40 no. standard short-term spaces, 2 no. short term cargo-bike spaces, and a secure bike shed with 20 no. standard and 2 no. cargo-bike spaces).

The development of the northern half of the proposed Kingston Park (site area 3.43Ha), including:

I. The development of 1 no. 4G synthetic turf multi-sport pitch (designed to rugby pitch dimensions) with associated fencing and 6 no. floodlights.
II. New two-storey, multi-functional building which includes public and sports team changing rooms, toilets, and showers (standard and accessible); double-height general purpose community hall including retractable bleacher seating; multi-purpose activity rooms (including 3 no. rooms offering direct views onto the playing pitch); commentary booth; café and servery; sensory room; first-aid room; store room; plant room; reception area; and roof-mounted solar panels.
III. New public spaces and amenities including all-ages play area, outdoor classroom / amphitheatre; internal paths; multi-functional gaming area; informal games lawn; boules pitch; calisthenics area; performance space; pedestrian gateway plaza; parks department staff kiosk; refuse store; sports equipment sheds; public lighting; and public seating.
IV. Extensive landscape planting (including native genus and species) and nature-based drainage measures including pollinator-friendly raingarden/ bioretention areas; reinforced grass paving; native hedgerows; short- and long-flowering meadows; wildflower gardens; native and naturalised wooded areas and pollinator-friendly perennials and shrubs.

V. Replacement of the existing vehicular site access / junction on the Altan Road, and modification of the new access road approved under permitted Aquatic Centre Development (Pln. Ref. 24/60370) to account for the layout of this proposed development.
VI. Improvement of existing active travel entrance from Doire Gheal, improved links to the St. John the Apostle, Knocknacarra National School (via a Safe Routes to School), new active travel accesses from the Altan Road, and provision for 2 no. potential future accesses to lands to the east (northeast of Kingston Gardens).

A site layout is included in Appendix 1 of this report.

2.2.2 Construction Details

The proposed site drainage, site services, and landscape plan are summarised below.

2.2.2.1 Site Drainage

An Engineering Planning Report has been prepared by PUNCH consulting engineers as part of this planning application and is included in Appendix 2. This details the proposed site drainage design including surface water runoff, foul water drainage and watermains supply for the Proposed Development. The site drainage plan is summarised below, and the proposed site drainage drawings are included in Appendix 3 of this report.

2.2.2.1.1 *Proposed Surface Water Network*

Both sites are serviced by existing surface water drains. This network will be modified during the Proposed Development. Additionally, Sustainable Drainage Systems (SuDS) measures will be implemented within the site with the aim of managing surface water run-off.

Kingston Park

The proposed surface water drainage will consist of a network of filter drains that run underneath the proposed playing pitch, these will connect to a new proposed surface water pipe in the south western corner of the pitch that will connect to the existing surface water sewer that runs close to the western boundary of the site. The filter drains will also drain into a diffuser box located along the northern edge of the playing pitch. This attenuation tank will drain into a proposed surface water drainage network that will connect to the existing combined sewer that runs through the northern portion of the site. Filter drains will also be present in the carparking area of the site, and these will drain into the proposed drainage network and subsequently connects into the existing surface water sewer.

Millers Lane

The proposed surface water drainage will consist of filter drains running underneath the proposed playing pitches and along the edges of the carparking area. These filter drains will drain into a proposed surface drainage network that will connect to the existing surface water sewer that runs close to the western boundary. Two diffuser boxes are proposed, located underneath the western playing pitch.

SuDS Proposals

All SuDS measures are to be implemented with reference to the UK SuDS Manual and Galway City's Council Development Standards.

The SuDS measures aim to reduce the impact of urbanisation by replicating the runoff characteristics of the greenfield site through the introduction of bioretention areas, permeable grass paving and the green roof.

The SuDS design for the Proposed Development will include sections of reinforced grass located in the carparking areas of both Kingston Park and Millers Lane. Bioretention rain garden planting will be implemented in the areas surround car parking, with some tree pit planting included.

Bioretention Areas

The bio-retention areas will incorporate drainage stone/subsoil and will provide a level of additional attenuation within the bioretention areas. Bioretention systems allow the stormwater to filter downwards through a filter medium removing finer contaminants along the way. These will be bordering carparking areas to help mitigate surface water run-off.

Permeable Artificial Pitch and Permeable Grass Paving

A permeable grass paving surface will be used for the car parks across both Kingston Park and Millers Lane. The proposed artificial pitches will be permeable to allow the diffusion of surface water into the soil below. Green Roof and Rainwater Harvesting

A green roof, consisting of a vegetation covered roof will be installed on the proposed buildings within Kingston Park and Millers Lane.

Surface water run-off will be collected from these roofs and will be implemented into a rainwater harvesting system that will be utilised in the buildings. This will help to reduce the level of runoff from the site and help to reduce the area that is needed for attenuation.

2.2.2.1.2 *Proposed Foul Water Drainage*

The proposed foul water sewer has been modelled using Causeway Flow software in accordance with the “Code of Practice for Wastewater Infrastructure” (particularly clause 3, published by Uisce Éireann). Details of the foul water drainage for the site are included in the Engineering Planning Report that is included in the planning application for this project. Foul water drainage drawings are included in Appendix 2 of this report.

Kingston Park

The Proposed foul water drainage system will be designed to service the proposed two-story building in the centre of the site and will consist of two sewer lines running parallel along both sides of the proposed building. These lines will converge south of the building and will connect to the existing foul sewer network that runs along the western boundary of the Proposed Development.

Millers Lane

The proposed foul water drainage system will serve the proposed two-storey building in the centre of the site. It will consist of two foul sewer lines that will run parallel east and west of the building and will converge and flow south of the building before connecting to the existing foul water sewer network via an existing manhole at the south-west corner of the site.

2.2.2.2 Watermains

Kingston Park

There is an existing watermain that transverses through the site of the Proposed Development and through the footprint of the proposed building. It connects to a 150mm diameter watermain east of the site. As the watermain is located within the footprint of the proposed building, it must be re-located in line with Uisce Éireann's regulations. The proposed diversion will run along the northern edge of the proposed building, service it via a proposed watermains connection, and then reconnect to the diverted watermains west of the site.

Millers Lane

The proposed watermain network will be designed to service the proposed two-story building. The network will consist of a single watermains connection that will enter the site north of the soccer pitch, will run parallel to the eastern boundary of the soccer pitch, and will connect to the proposed building at its southern side.

A pre-connection enquiry was undertaken for the development in relation to a Water and Wastewater connection. A confirmation of feasibility letter was received from Uisce Eireann and is available in Appendix 4.

2.2.2.3 Landscaping and Amenity Areas

A landscape plan was prepared by DRLA Landscape Architects for the proposed development. Landscaping plans, including planting lists are included in Appendix 5 of this report.

Kingston Park

In the northern section of the proposed development the northern boundary will be planted with a double row of clipped hedge consisting of the species *(Acer campestre)*, *(Carpinus betulus)* and *(Crataegus monogyna)*. Adjoining this, in the north eastern and north western corners of the site are pockets of planted multi-stem and semi-mature trees, planted with a proposed woodland edge planting mix including *(Corylus avellana)*, *(Ilex aquifolium)*, *(Viburnum opulus)* and *(Cornus sanguinea)*. Bordering these pockets of woodland is a strip of long flowering meadow, seeded with native sourced Irish wildflower seed, following guidelines set out in the All Ireland Pollinator Plan. Bordering the long flowering meadow strips is a strip of short flowering meadow, also seeded with native wildflower seed. Areas of short flowering meadow are also proposed for the outdoor seating area in the north western corner of the site, and on traffic islands in the car parking area. Proposed rain garden planting is proposed in the car park area, and will include *(Alchemilla mollis)*, *(Aster frikartii 'Mönch')*, *(Bergenia cordifolia)*, *(Geranium 'Rozanne')*, *(Hemerocallis 'Burning Daylight')*, *(Helenium 'Moerheim Beauty')*, *(Rudbeckia fulgida 'Yellow Goldstar')*, *(Monarda didyma)*, *(Stachys byzantina)*, *(Iris sibirica)*, *(Calamagrostis brachytricha)*, *(Carex pendula)*, *(Viburnum opulus 'Nanum')*, *(Cornus kousa)*. Most of the proposed rain garden areas will include bioretention tree planting with species chosen for their water tolerance, including *(Alnus glutinosa)*, *(Betula pubescens)*, *(Liquidambar styraciflua 'Worplesdon')* and *(Ulmus 'Columnella')*. Sections of pollinator friendly planting are to be planted along the borders of the proposed community building and will include species that have been selected in line with guidance from the All Ireland Pollinator Plan, including *(Anemone)*, *(Berberis darwinii)*, *(Echinops)*, *(Echinacea purpurea)*, *(Euonymus europaeus)*, ground cover roses, *(Helenium)*, *(Lamium maculatum)*, *(Lonicera)*, *(Mahonia)*, *(Nepeta)*, *(Perovskia)*, *(Persicaria)*, *(Rosmarinus officinalis)*, *(Viburnum tinus)*, *(Nepeta)*, *(Sarcococca hookeriana)*, *(Salvia)*, *(Sedum)*, *(Stachys byzantina)*, *(Viburnum opulus 'Nanum')*.

South of Altan Road, the clipped hedge boundary will continue to include the entire boundary of the park. Trees will be planted along the eastern boundary, in combination with a woodland edge planting mix, bordered by a short flowering meadow. Trees will also be planted within the south western corner,

accompanied by a woodland edge planting mix, and bordered by a strip of long flowering and short flowering meadow. A strip of short flowering meadow will border the active travel path that runs through the western portion of the site; this will be accompanied by pollinator-friendly shrub planting, including: *(Anemone)*, *(Berberis darwinii)*, *(Echinops)*, *(Echinacea purpurea)*, *(Euonymus europaeus)*, ground cover roses, *(Helenium)*, *(Lamium maculatum)*, *(Lonicera)*, *(Mahonia)*, *(Nepeta)*, *(Perovskia)*, *(Persicaria)*, *(Rosmarinus officinalis)*, *(Viburnum tinus)*, *(Nepeta)*, *(Sarcococca hookeriana)*, *(Salvia)*, *(Sedum)*, *(Stachys byzantina)*, *(Viburnum opulus 'Nanum')*.

The children's play area will be bordered by short flowering meadow, and will feature pollinator-friendly planting and tree planting in the centre.

Millers Lane

The north eastern boundary of Millers Lane will be planted with multi-stemmed trees alongside a woodland edge planting mix. Species include *(Amelanchier lamarckii)*, *(Betula pendula)*, *(Betula jacquemontii)*, *(Malus 'Rudolph')* and *(Sorbus aucuparia)*. In the car parking area, semi-mature trees will be planted adjacent to the coach parking; species will include *(Acer campestre 'Elsrijk')*, *(Prunus avium 'Plena')*, *(Quercus robur)*, and *(Sorbus aucuparia 'Autumn Spire')*. Extensive rain garden planting will be implemented in the car parking area and will include *(Alchemilla mollis)*, *(Aster frikartii 'Mönch')*, *(Bergenia cordifolia)*, *(Geranium 'Rozanne')*, *(Hemerocallis 'Burning Daylight')*, *(Helenium 'Moerheim Beauty')*, *(Rudbeckia fulgida 'Yellow Goldstar')*, *(Monarda didyma)*, *(Stachys byzantina)*, *(Iris sibirica)*, *(Calamagrostis brachytricha)*, *(Carex pendula)*, *(Viburnum opulus 'Nanum')*, and *(Cornus kousa)*. Some of these rain gardens will feature bioretention tree planting, including species selected for water tolerance: *(Alnus glutinosa)*, *(Betula pubescens)*, *(Liquidambar styraciflua 'Worplesdon')*, and *(Ulmus 'Columnella')*. A double clipped hedge, featuring *(Acer campestre)*, *(Carpinus betulus)* and *(Crataegus monogyna)*, will be planted around the site boundary. Pollinator-friendly planting will be implemented along the borders of the playing pitches and the playground. This will feature species such as *(Anemone)*, *(Echinops)*, *(Echinacea purpurea)*, *(Euonymus europaeus)*, ground cover roses, *(Helenium)*, *(Lamium maculatum)*, *(Lonicera)*, *(Mahonia)*, *(Nepeta)*, *(Perovskia)*, *(Persicaria)*, *(Rosmarinus officinalis)*, *(Viburnum tinus)*, *(Nepeta)*, *(Sarcococca hookeriana)*, *(Salvia)*, *(Sedum)*, *(Stachys byzantina)*, and *(Viburnum opulus 'Nanum')*. A line of semi-mature trees along the pedestrian path located close to the south western boundary will be bordered by a strip of short flowering meadow. Existing trees along the path will be retained. A small section of proposed woodland edge planting will be located adjacent to the most eastern playing pitch and in the south western corner, near the existing pedestrian entrance to the park. An existing strip of wildflower meadow with some existing planted semi-mature trees located along the eastern boundary of the park will be retained.

3. METHODOLOGY

The following sections describe the methodologies followed to establish the baseline ecological condition of the proposed development site and surrounding area. Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological Baseline conditions are those existing in the absence of proposed activities (CIEEM 2018).

3.1 Desk Study

A comprehensive desk study was undertaken to inform this ecological impact assessment. This study includes a thorough review of available information that is relevant to the ecology of the site of the proposed development. This information provides valuable existing data and also helps in the assessing the requirement for additional ecological surveys.

The following list describes the sources of data consulted:

- Review of online web-mappers: National Parks and Wildlife Service (NPWS), Environmental Protection Agency (EPA)
- NPWS records (data request)
- Review of the Bat Conservation Ireland (BCI) Private Database
- Review of the publicly available National Biodiversity Data Centre web-mapper
- Records from the NPWS web-mapper and review of specially requested records from the NPWS Rare and Protected Species Database for the hectads which overlap with the study area

3.2 Scoping and Consultation

A scoping request was sent to the National Parks and Wildlife Service (NPWS) on the 26th of September 2025 through the Development Applications Unit (DAU) outlining the Proposed Development details and the ecological surveys being undertaken to inform the ecology reports accompanying the planning application. The purpose of the scoping requests was to obtain comments or observations in relation to the development and the ecological surveys undertaken to date. A reply was received on the 29th of September 2025 acknowledging receipt of the consultation. No further response has been received to date.

3.3 Field Surveys

3.3.1 Multi-disciplinary ecological walkover survey

Multi-disciplinary ecological walkover surveys were undertaken in accordance with NRA Guidelines on Ecological Surveying Techniques for Protected Flora and Fauna on National Road Schemes (NRA, 2009). This survey provided baseline data on the ecology of the study area and assessed whether further more detailed habitat or species specific ecological surveys were required. The multi-disciplinary ecological walkover survey comprehensively covered the entire study area.

Habitats were classified in accordance with the Heritage Council's 'Guide to Habitats in Ireland' (Fossitt, 2000). Habitat mapping was undertaken with regard to guidance set out in 'Best Practice Guidance for Habitat Survey and Mapping' (Smith et al., 2011).

Plant nomenclature for vascular plants follows 'New Flora of the British Isles' (Stace, 2019), while mosses and liverworts nomenclature follows 'Mosses and Liverworts of Britain and Ireland - a field guide' (British Bryological Society, 2010).

The walkover surveys were designed to detect the presence, or suitable habitat for a range of protected faunal species that are may occur in the vicinity of the proposed development.

During the multidisciplinary surveys, a search for Invasive Alien Species (IAS), with a focus on those listed under the First Schedule of the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374 of 2024) and the Third Schedule under Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011).

The walkover surveys were undertaken on 13th of June 2025 by Mairead Kavanagh and Cormac Roberts of MKO. The survey timing falls within the recognised optimum period for vegetation surveys/habitat mapping, i.e. April to September (Smith et al., 2011).

3.3.1.1 Wintering bird surveys

Six dedicated wintering bird surveys were conducted by MKO ecologist Mairead Kavanagh, Deepali Mooloo (B.Sc., M.Sc.), Fiona Keelin (B.Sc, M.Sc.), Katy Beckett (B.Sc, M.Sc), Ciara Lynn-Sheehan (B.Sc) and Caití Farren (B.Sc) at the proposed development site at Millers Lane on 23rd October, 14th November, 4th December 2024 and 24th January, 14th February, and 26th March 2025. Five wintering Bird surveys were carried out at the Kingston Park site on the 14th November, 4th December 2024 and 24th January, 14th February, and 26th March 2025. The aim of these surveys was to investigate the bird species utilising the habitats within the proposed development site.

Target species for these surveys included birds which are Red Listed or listed under Annex I of the Birds Directive or Special Conservation Interest (SCI) species of Inner Galway Bay SPA.

Survey methodology followed the Irish Wetland Bird Survey (2021) and Lewis and Tierney (2014). For the purposes of the survey, waterbirds comprised all species of the following taxa: swans, geese, and ducks; cormorant, shag, divers and grebes; auks; seabirds; gulls, terns and skuas; herons, egrets and crane; rails and crakes; waders; and kingfisher. Due to their strong association with aquatic or marine habitats, the species chough, grey wagtail and dipper were also treated as waterbirds for the purposes of these surveys.

All sites were visited during daylight hours, and all waterbirds observed from suitable vantage points/transects were recorded and mapped. The surveyor remained at each vantage point until all visible birds were counted and then moved to the next vantage point. Only birds actively using the site (i.e. for foraging, roosting and maintenance behaviours) were recorded. Birds not actively using the site (i.e. commuters or flyovers) were not included.

3.3.1.2 Breeding Bird Surveys

Survey methodology followed NRA (2009) *Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes*, which recommends a 'scaled-down' survey protocol bases upon the specifications of the Common Bird Census (CBC) methodology. Three survey visits were conducted at each site during the breeding season on the 17th of April, 13th of May, and 13th of June 2025 by Mairead Kavanagh (B.Sc.) and Chandra Walter (B.Sc.) of MKO. Each survey started within an hour after sunrise and finished before 12 noon.

Target species also included Special Conservation Interests (SCIs) of Special Protection Areas (SPAs) within the likely zone of influence, as well as those on the Birds of Conservation Concern in Ireland (BoCCI) Red List and Annex I of the EU Birds Directive. All other bird species observed within and

adjacent to the study area, including all common and widespread passerines, were recorded as incidentals.

All birds were counted using the 'look-see' method, whereby all birds present within a predefined area are counted (Bibby *et al.,* 2000). The surveys were carried out at suitable vantage points, located overlooking sections of the study area. Vantage points were chosen to have as large as possible a view of the study area and potential adjacent daytime feeding habitat in the vicinity of the study area. Vantage points focused on areas which were deemed to be of likely significance to breeding birds of SPAs within the likely zone of influence. Transects through the study area were also used to cover larger areas of ground while recording all birds in sight, with an effort to walk within 50m of all key habitat features, where possible.

For each observation, the date, species, number of birds, activity and any other notes of interest were recorded. Only birds actively using the study area (i.e. for foraging, roosting and maintenance behaviours) were recorded. Birds not actively using the study area (i.e. commuters or flyovers) were noted but not included in the Tables in Section 3 below. Auditory records were also recorded and noted as such.

3.3.1.3 Bat Surveys

A daytime walkover survey and inspections were carried out by MKO ecologists Saoirse Fitzsimons (B.A, M.Sc) and Marie Greaney (B.Sc., M.Sc.) on the 15th May 2025. The landscape features on the site were visually assessed for potential use as bat roosting habitats and commuting/foraging habitats using a protocol set out in Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn.) (Collins, 2023). The aim of the survey was to identify suitable bat habitats within the site for roosting, foraging and commuting bats to guide further survey efforts.

Night-time bat walkover surveys were carried out on the 3rd of June, the 15th of July and the 9th of September 2025 by Saoirse Fitzsimons (B.A, M.Sc), Marie Greaney (B.Sc., M.Sc.), Noel Fahy (B.Sc.) and Emma Fitzgerald (B.Sc.).

A Baseline Bat Report has been prepared as part of the planning application for the Proposed Development and is presented in Appendix 6. This document provides a detailed description of all survey methodologies as undertaken at the Proposed Development site in 2025

3.4 Methodology for Assessment of Impacts and Effects

3.4.1 Determining Importance of Ecological Receptors

The importance of the ecological features identified within the study area was determined with reference to a defined geographical context. This was undertaken following a methodology that is set out in Chapter 3 of the 'Guidelines for Assessment of Ecological Impacts of National Roads Schemes' (NRA, 2009). These guidelines set out the context for the determination of value on a geographic basis with a hierarchy assigned in relation to the importance of any particular receptor. The guidelines provide a basis for determination of whether any particular receptor is of importance on the following scales:

- International
- National
- County
- Local Importance (Higher Value)
- Local Importance (Lower Value)

The Guidelines clearly set out the criteria by which each geographic level of importance can be assigned. Locally Important (lower value) receptors contain habitats and species that are widespread and of low ecological significance and of any importance only in the local area. Internationally Important sites are either designated for conservation as part of the Natura 2000 Network (SAC or SPA) or provide the best examples of habitats or internationally important populations of protected flora and fauna. Specific criteria for assigning each of the other levels of importance are set out in the guidelines and have been followed in this assessment. Where appropriate, the geographic frame of reference set out above was adapted to suit local circumstances. In addition, and where appropriate, the conservation status of habitats and species is considered when determining the significance of ecological receptors.

Any ecological receptors that are determined to be of Local Importance (Higher Value), County, National or International importance following the criteria set out in NRA (2009) are considered to be Key Ecological Receptors (KERs) for the purposes of ecological impact assessment if there is a pathway for effects thereon. Any receptors that are determined to be of Local Importance (Lower Value) are not considered to be Key Ecological Receptors.

3.4.2 Characterisation of Impacts and Effects

The proposed development will result in a number of impacts. The ecological effects of these impacts are characterised as per the CIEEM 'Guidelines for Ecological Impact Assessment in the UK and Ireland (2018). The headings under which the impacts are characterised follow those listed in the guidance document and are applied where relevant. A summary of the impact characteristics considered in the assessment is provided below:

- **Positive or Negative.** Assessment of whether the proposed development result in a positive or negative effect on the ecological receptor.
- **Extent.** Description of the spatial area over which the effect has the potential to occur.
- **Magnitude** to size, amount, intensity and volume. It should be quantified if possible and expressed in absolute or relative terms e.g. the amount of habitat lost, percentage change to habitat area, percentage decline in a species population.
- **Duration** is defined in relation to ecological characteristics (such as the lifecycle of a species) as well as human timeframes. For example, five years, which might seem short-term in the human context or that of other long-lived species, would span at least five generations of some invertebrate species.

- **Frequency and Timing.** This relates to the number of times that an impact occurs and its frequency. A small-scale impact can have a significant effect if it is repeated on numerous occasions over a long period.
- **Reversibility.** This is a consideration of whether an effect is reversible within a 'reasonable' timescale. What is considered to be a reasonable timescale can vary between receptors and is justified where appropriate in the impact assessment section of this report.

3.4.3 Determining the Significance of Effects

The ecological significance of the effects of the proposed development are determined following the precautionary principle and in accordance with the methodology set out in Section 5 of CIEEM (2018).

For the purpose of EcIA, 'significant effect' is an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. Conservation objectives may be specific (e.g. for a designated site) or broad (e.g. national/local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local (CIEEM, 2018).

When determining significance, consideration is given to whether:

- Any processes or key characteristics of key ecological receptors will be removed or changed
- There will be an effect on the nature, extent, structure and function of important ecological features
- There is an effect on the average population size and viability of ecologically important species.
- There is an effect on the conservation status of important ecological habitats and species.

The EPA *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (EPA, 2022) and the *Guidelines for assessment of Ecological Impacts of National Road Schemes*, (NRA, 2009) were also considered when determining significance.

3.5 Limitations

The information provided in this document accurately and comprehensively describes the baseline ecological environment; provides an accurate prediction of the likely ecological effects of the proposed development; prescribes mitigation as necessary; and, describes the residual ecological impacts. The specialist studies, analysis and reporting have been undertaken in accordance with the appropriate guidelines. No significant limitations in the scope, scale or context of the assessment have been identified.

4. DESK STUDY

4.1 Designated Sites

The potential for the proposed development to impact on sites that are designated for nature conservation was considered in this Ecological Impact Assessment.

Special Areas of Conservation (SACs) and Special Protection Areas for Birds (SPAs) are designated under EU Habitats Directive and are collectively known as 'European Sites'. The potential for effects on European Sites is fully considered in the Natura Impact Statement (NIS) that accompanies the planning application for the Proposed Development. The location of the site of the proposed development in relation to European Sites is provided in Figure 4-1. The potential for likely significant effects on the following European sites was identified at the Screening stage in relation to deterioration of water quality. This has been considered fully in the NIS:

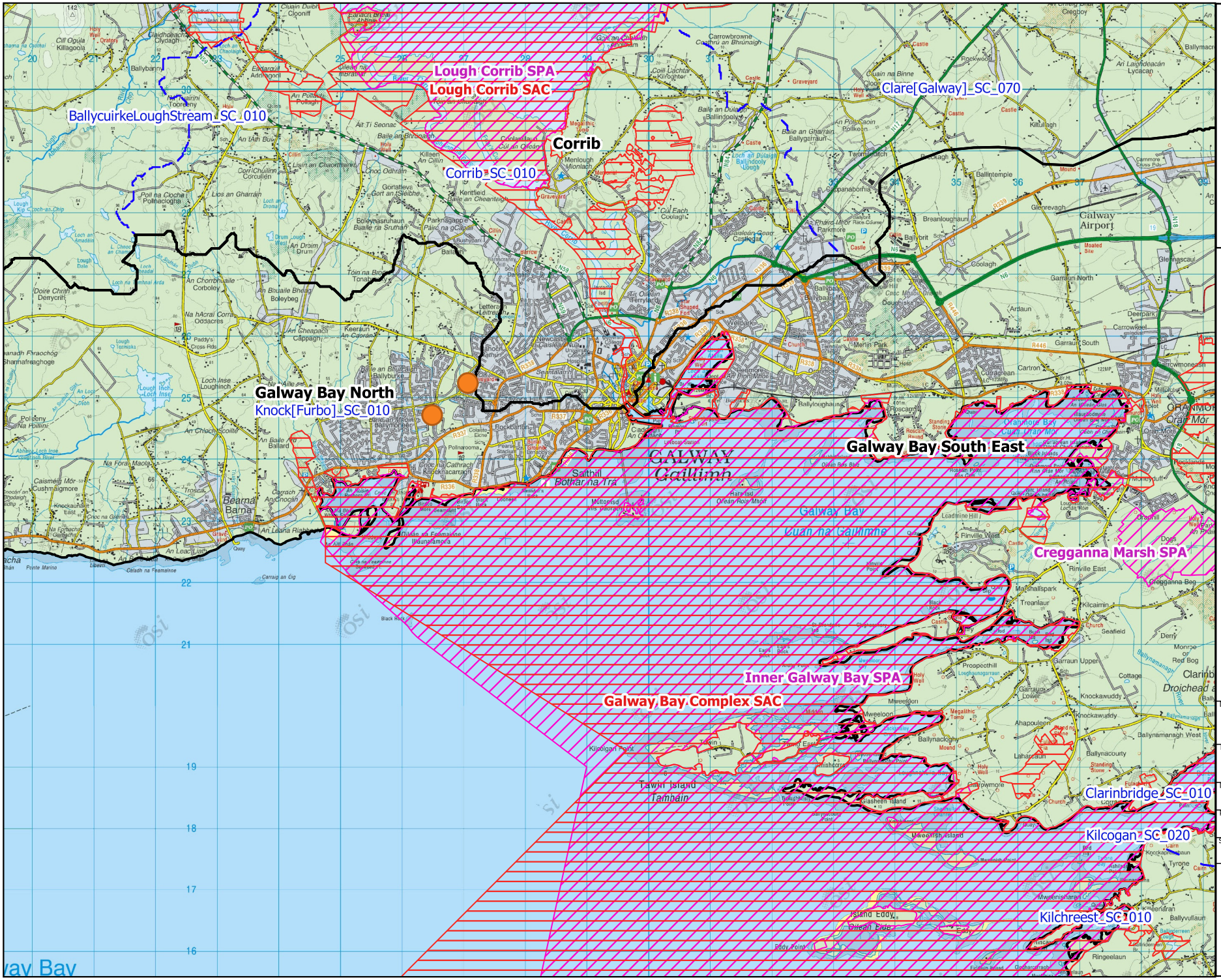
- Galway Bay Complex SAC [000268]
- Inner Galway Bay SPA [004031]

Natural Heritage Areas (NHAs) are designated under the Wildlife (Amendment) Act 2000 and their management and protection is provided for by this legislation and planning policy. The potential for effects on these designated sites is fully considered in this EcIA.

Proposed Natural Heritage Areas (pNHAs) were designated on a non-statutory basis in 1995 but have not since been statutorily proposed or designated. However, the potential for effects on these designated sites is fully considered in this EcIA.

The following methodology was used to establish which sites that are designated for nature conservation have the potential to be impacted by the proposed development:

- Initially the most up to date GIS spatial datasets for Nationally designated sites and water catchments were downloaded from the NPWS website (www.npws.ie) and the EPA website (www.epa.ie). The datasets were utilized to identify Designated Sites which could feasibly be affected by the proposed development.
- All Nationally Sites that could potentially be affected were identified using a source-pathway - receptor model. To provide context for the assessment, Nationally Designated Sites surrounding the development site are shown on Figure 4-2. Information on these sites according to the site-specific conservation objectives is provided in Table 4-1.
- Catchment mapping was used to establish or discount potential hydrological connectivity between the site of the proposed development and any Designated Sites. The hydrological catchments are also shown in Figures 4-1 and 4-2.
- Table 4-1, provides details of all relevant Nationally Designated Sites as identified in the preceding steps and assesses which are within the likely Zone of Influence.
- The site synopses and main reasons for designation of these sites, as per the NPWS website (www.npws.ie) were consulted where available.
- Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Influence and further assessment is required.



Map Legend

- Park Locations
- Special Area of Conservation (SAC)
- Special Protection Area (SPA)
- WFD Hydrological Catchments
- WFD Hydrological Subcatchments

Drawing Title
European Designated Sites within the Likely Zone of Influence

Project Title
Kingston Park and Millers Lane - Public Park and Urban Realm Project

Drawn By	Checked By
MK	JH
Project No.	Drawing No.
240298	Figure 4-1
Scale	Date
1:80,000	21.10.2025

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Map Legend

- Park Locations
- Natural Heritage Area (NHA)
- Proposed Natural Heritage Area (pNHA)
- WFD Hydrological Catchments
- WFD Hydrological Subcatchments

Drawing Title
Nationally Designated Sites within the Likely Zone of Influence

Project Title
Kingston Park and Millers Lane - Public Park and Urban Realm Project

Drawn By	Checked By
MK	PR
Project No.	Drawing No.
240298	Figure 4-2
Scale	Date
1:80,000	29.10.2025

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Table 4-1 Identification of Designated sites within the Likely Zone of Influence

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Influence Determination
Natural Heritage Area (NHA)		
Moycullen Bogs NHA [002364] **Distance:** approx. 1.5km	› Lowland blanket bog › Wet heath › Dry heath › Lakes and streams › Fens and flushes › Revegetating cutaway bog › Red grouse (*Lagopus lagopus hibernicus*)	This NHA is designated for the protection of lowland blanket bogs, wetlands/lakes and faunal species such as red grouse. There is no potential for direct effects on this NHA as the Proposed Development site is located entirely outside the NHA boundary. No surface water connectivity was identified between the site of the Proposed Development and this NHA. The site of the Proposed Development and this NHA are underlain by the Spiddal groundwater body. However, according to the GSI groundwater draft description for the Spiddal groundwater body, the groundwater flowpath trends south for this groundwater body, away from the NHA. As such, no potential pathway for significant indirect effects on this Designated Site was identified. As a result, no complete pathway for effect was identified between the Proposed Development and the Designated Site, therefore the site is **not within the Likely Zone of Influence and no further assessment is required.**
Proposed Natural Heritage Area (pNHA)		
Galway Bay Complex pNHA [000268] **Distance:** 0.7km **Hydrological Distance:** approx. 1.1km downstream	› Wetland, coastal, and marine habitats and the protected species which inhabit them	This site is designated for protection of wetland, coastal, and marine habitats and the protected species which inhabit them. This site is also designated under the Galway Bay Complex SAC [000268] and the Inner Galway Bay SPA [004031] European designations. There is no potential for direct effects on this pNHA as the Proposed Development site is located entirely outside the pNHA boundary. The Knocknacarragh stream flows underneath the site of the Proposed Development. It provides a hydrological connection to the Galway Bay Complex pNHA approximately 1.1km downstream. Taking a precautionary approach, there is

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Influence Determination
		potential for indirect effects to the aquatic influenced species and habitats associated with this pNHA, via the potential for the deterioration to water quality resulting from pollutants arising due to works associated with the construction and operational phases of the Proposed Development. Black-headed Gull (*Chroicocephalus ridibundus)* and Common Gull (*Sterna hirundo)* were recorded using the amenity grassland within the Millers Lane site during the wintering bird surveys undertaken in the 24/25 season. It is highly likely that the gull species recorded on site were using the site periodically and are therefore not dependent on the habitats within the Proposed Development site. Additionally, birds utilizing the site are already habituated to a level of human disturbance that will not increase significantly as a result of the Proposed Development. Therefore, it can be concluded that the Proposed Development site does not provide significant suitable supporting habitat for bird species associated with this pNHA and significant effects as a result of ex-situ habitat loss and/or disturbance/ displacement can be excluded. A complete source pathway receptor chain was identified and in the absence of mitigation, there is potential for the Proposed Development to result in likely significant effects on this Designated Site. Therefore, **the pNHA is located within the Likely Zone of Influence. It is also designated under the Galway Bay Complex SAC [000268] and Inner Galway Bay SPA [004031] and is fully considered in the accompanying NIS under its European designation.**
Lough Corrib pNHA [000297] **Distance:** approx. 2.3km	› Wetland and lake habitats as well as the protected bird species which inhabit them	This site is designated for protection for its wetland and lake habitats as well as the protected bird species which inhabit them. This site is also designated under the Lough Corrib SAC [000297] and Lough Corrib SPA [004042] European designations. There is no potential for direct effects on this pNHA as the Proposed Development site is located entirely outside the pNHA boundary. There is no hydrological connectivity between the site of the Proposed Development and Lough Corrib pNHA. They are located in separate sub catchments and

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Influence Determination
		underlain by separate groundwater bodies. Given the lack of connectivity and the intervening distance between the site and the NHA, no potential pathway for significant indirect effects on this Designated Site was identified. Black-headed Gull (*Chroicocephalus ridibundus)* and Common Gull (*Sterna hirundo)* were recorded using the amenity grassland within the Millers Lane site during the wintering bird surveys undertaken in the 24/25 season. It is highly likely that the gull species recorded on site were using the site periodically and are therefore not dependent on the habitats within the Proposed Development site. Additionally, birds utilizing the site are already habituated to a level of human disturbance that will not increase significantly as a result of the Proposed Development. Therefore, it can be concluded that the Proposed Development site does not provide significant suitable supporting habitat for bird species associated with this pNHA and significant effects as a result of ex-situ habitat loss and/or disturbance/ displacement can be excluded. According to Map 11 of the site-specific conservation objectives, the Lesser Horseshoe Bat roost for which this site is designated, is located to the north of Lough Corrib approx. 33.7km northwest of the Proposed Development site (NPWS, 2018). Therefore, the development site is located outside of the bat roost's 2.5km foraging range, and there is no potential for impact on this QI. As a result, no complete pathway for effect was identified between the Proposed Development and this Designated Site, therefore the site is **not within the Likely Zone of Influence and no further assessment is required.**
Ballycuirke Lough pNHA [000228] **Distance:** approx. 6.5km	› Wetlands and wildfowl	This site is designated for its wetland and lake habitats as well as the protected bird species which inhabit them. Ballycuirke Lough pNHA is also designated as a small part of the Lough Corrib SAC [000297] European designation, which is fully considered in the accompanying NIS under its European designation. There is no potential for direct effects on this pNHA as the Proposed Development site is located entirely outside the pNHA boundary.

Designated Sites and distance from proposed development	Reasons for Designation	Likely Zone of Influence Determination
		There is no hydrological connectivity between the Proposed Development site and this pNHA as they are located in separate sub catchments and separate groundwater bodies. Given the absence of connectivity and the intervening distance between the site and the pNHA, no potential pathway for significant indirect effects on this Designated Site was identified. Black-headed Gull (*Chroicocephalus ridibundus)* and Common Gull (*Sterna hirundo)* were recorded using the amenity grassland within the Millers Lane site during the wintering bird surveys undertaken in the 24/25 season. It is highly likely that the gull species recorded on site were using the site periodically and are therefore not dependent on the habitats within the Proposed Development site. Additionally, birds utilizing the site are already habituated to a level of human disturbance that will not increase significantly as a result of the Proposed Development. Therefore, it can be concluded that the Proposed Development site does not provide significant suitable supporting habitat for bird species associated with this pNHA and significant effects as a result of ex-situ habitat loss and/or disturbance/ displacement can be excluded. As a result, no complete pathway for effect was identified between the Proposed Development and this Designated Site, therefore the site is **not within the Likely Zone of Influence and no further assessment is required.**

4.2 New Flora Atlas

A search was carried out on the NPWS web-mapper for records for Vascular Plants, Charophytes and Lichens listed in and legally protected under the Flora (Protection) Order 2022. A search was made in the New Atlas of the British & Irish Flora (Preston et al., 2002) to investigate whether any rare or unusual plant species listed as Annex II of the Habitats Directive which are listed as rare on the Red Data List (Curtis and McGough 1988) or protected under the Flora (Protection) Order 2022 had been recorded in the relevant 10km square in which the study site is situated (M22), during the 1987-1999 atlas survey. Results of this search are outlined in Table 4-2 below.

Table 4-2 Records of species listed under the Flora (Protection) Order 2022 or the Irish Red Data Book for Vascular Plants

Common Name	Scientific Name	Status
Slender Cottongrass	*Eriophorum gracile*	FPO, NT
Small-white Orchid	*Pseudorchis albida*	FPO, VU
Awlwort	*Subularia aquatica*	VU
Spiked Sedge	*Carex spicata*	NT
Greater Knapweed	*Centaurea scabiosa*	NT
Frog Orchid	*Coeloglossum viride*	NT
Sea-Kale	*Crambe maritima*	NT
Pipewort	*Eriocaulon aquaticum*	NT
Spring Gentian	*Gentiana verna*	NT
Autumn Gentian	*Gentianella amarella*	NT
Field Gentian	*Gentianella campestris*	NT
Yellow Horned-poppy	*Glaucium flavum*	NT

Corn Marigold	*Chrysanthemum segetum*	NT
Hoary Rock-rose	*Helianthemum oelandicum*	NT
Henbane	*Hyoscyamus niger*	NT
Common Gromwell	*Lithospermum officinale*	NT
Dense-flowered Orchd	*Neotinea maculata*	NT
Tubular Water-dropwort	*Oenanthe fistulosa*	NT
Brackish Water-crowfoot	*Ranunculus baudotii*	NT
Least Bur-reed	*Sparganium natans*	NT
Green Field-speedwell	*Veronica agrestis*	NT

4.3 NPWS Records

NPWS online records were searched on 19th September 2025 provide date for records of any rare or protected species of flora or fauna within in the 10 kilometre grid square, M22, in which the study area lies. A data request was also sent to the NPWS and data received in relation to the grid square on the 2nd September 2025. Table 4-3 lists the rare and protected species records obtained from the NPWS during this study.

Table 4-3 Records for rare and protected species, NPWS.

Common Name	Scientific Name	Status
Cladonia portentosa	*Cladonia portentosa*	V
Cladonia ciliata	*Cladonia ciliata*	V
Small-white Orchid	*Pseudorchis albida*	FPO, VU
Common Frog	*Rana temporaria*	Annex V, WA
Common Lizard	*Lacerta vivipara*	WA
Eurasian Badger	*Meles meles*	WA
Sea Lamprey	*Petromyzon marinus*	Annex II
Eurasian Otter	*Lutra lutra*	Annex II, IV, WA

Common Name	Scientific Name	Status
Henbane	*Hyoscyamus niger*	NT
Yellow Horned-poppy	*Glaucium flavum*	NT
Gentianella amarella subsp. hibernica	*Gentianella amarella subsp. hibernica*	NT
Field Gentian	*Gentianella campestris*	NT
Common Dolphin	*Delphinus delphis*	Annex IV, WA
Common Porpoise	*Phocoena phocoena*	Annex II, IV, WA
Smooth Newt	*Lissotriton vulgaris*	WA
Slender Cottongrass	*Eriophorum gracile*	FPO, NT
Sphagnum denticulatum	*Sphagnum denticulatum*	Annex V
Barn Owl	*Tyto alba*	BoCCI Red List
Sea-kale	*Crambe maritima*	NT
Hoary Rock-Rose	*Helianthemum oelandicum subsp. piloselloides*	NT
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	Annex II, IV, WA
West European Hedgehog	*Erinaceus europaeus*	WA
Shag	*Phalacrocorax aristotelis*	BoCCI Amber list
Irish Hare	*Lepus timidus subsp. hibernicus*	Annex V, WA
Eurasian Pygmy Shrew	*Sorex minutus*	WA

Common Name	Scientific Name	Status
Harbour Seal	*Phoca vitulina*	Annex II, V, WA
Irish Stoat	*Mustela erminea subsp. hibernica*	WA
Awlwort	*Subularia aquatica*	VU
Spiked Sedge	*Carex spicata*	NT

Annex II, Annex IV, Annex V – Of EU Habitats Directive, WA – Irish Wildlife Acts 1976 (As Amended), Red Data List (Curtis and McGough 1988), BoCCI Red List – Birds of Conservation Concern in Ireland (Population for which the species is red listed in brackets), AEWA -Agreement on the Conservation of African-Eurasian Migratory Waterbirds [1999].

4.3.1 NPWS Habitat and Species Mapping Datasets

A review of the Article 17 datasets for Annex I habitats and Annex II species, for habitats and species reported by the NPWS under Article 17 of the Habitats Directive (92/42/EEC), was undertaken.

Other habitat datasets provided by NPWS including the Heath, Bogs and Mires, Irish Semi-Natural Grassland Survey datasets, National Survey of Native Woodlands and Ancient and Long Established Woodland datasets were also reviewed prior to undertaking the multi-disciplinary walkover survey.

Available NPWS datasets were downloaded and overlain on the proposed development study area.

4.3.2 Article 17 Mapped Annex I Habitats

The most recent National Parks and Wildlife Service (NPWS, 2019) data on the recorded distribution of EU Habitats Directive Annex I listed habitats was reviewed in relation to the subject lands. This data is available in the form of the NPWS (2019) Article 17 reporting, and associated GIS data, on 'The Status of EU Protected Habitats and Species in Ireland' (NPWS, 2019).

No Article 17 habitats are mapped within the Proposed Development site boundary.

Article 17 mapped habitats located downstream of the study area include the following, which are located within the Galway Bay Complex SAC:

- [1140] Mudflats and sandflats not covered by seawater at low tide
- [1150] Lagoons
- [1160] Large shallow inlets and bays
- [1330] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*)
- [1410] Mediterranean salt meadows (*Juncetalia maritimi*)

The following terrestrial Article 17 mapped habitats are located 614m from the site of the Proposed Development at Kingston Park:

- [4030] European dry heaths
- [4010] Northern Atlantic wet heaths with *Erica tetralix*

Neither of these habitats are listed as QI's of the Galway Bay Complex SAC.
No other habitats recorded in the above NPWS datasets were located in the vicinity of the site.

4.4 Biodiversity Ireland Database

The National Biodiversity Data centre database was accessed and the following information was obtained. Table 4-4 lists the protected faunal species (excluding birds) recorded within the hectad which pertains to the current study area. The database was also searched for records of First and Third Schedule non-native invasive species within the hectad. Table 4-5 lists the non-native invasive species recorded within the hectad. Table 4-6 lists all the protected bird species recorded within the hectad which pertains to the current study area.

Table 4-4 NBDC records for protected fauna records (excl. birds).

Common Name	Scientific Name	Status
Common Frog	*Rana temporaria*	HD,V Wildlife Act
Smooth Newt	*Lissotriton vulgaris*	Wildlife Act
Marsh Fritillary	*Euphydryas aurinia*	HD, II
Sea Lamprey	*Petromyzon marinus*	HD, II
Bottle-nosed Dolphin	*Tursiops truncatus*	HD, IV, II Wildlife Act
Common Dolphin	*Delphinus delphis*	HD, IV Wildlife Act
Common Porpoise	*Phocoena phocoena*	HD, IV, II, Wildlife Act
Common Seal	*Phoca vitulina*	HD, V, II, Wildlife Act
Cuvier's Beaked Whale	*Ziphius cavirostris*	HD, IV Wildlife Act
Grey Seal	*Halichoerus grypus*	HD, V, II, Wildlife Act
Long-finned Pilot Whale	*Globicephala melas*	HD, IV Wildlife Act
Minke Whale	*Balaenoptera acutorostrata*	HD, IV Wildlife Act
Pygmy Sperm Whale	*Kogia breviceps*	HD, IV Wildlife Act
Striped Dolphin	*Stenella coeruleoalba*	HD, IV Wildlife Act
Common Lizard	*Zootoca vivipara*	Wildlife Act
Leathery Turtle	*Dermochelys coriacea*	HD, IV Wildlife Act
Brandt's Bat	*Myotis brandtii*	HD, IV Wildlife Act
Brown Long-eared Bat	*Plecotus auritus*	HD, IV Wildlife Act
Daubenton's Bat	*Myotis daubentonii*	HD, IV Wildlife Act
Eurasian Badger	*Meles meles*	Wildlife Act

Common Name	Scientific Name	Status
Eurasian Pygmy Shrew	*Sorex minutus*	Wildlife Act
Eurasian Red Squirrel	*Sciurus vulgaris*	Wildlife Act
European Otter	*Lutra lutra*	HD, II, IV Wildlife Act
Lesser Horseshoe Bat	*Rhinolophus hipposideros*	HD, II, IV Wildlife Act
Lesser Noctule	*Nyctalus leisleri*	HD, IV, Wildlife Act
Nathusius's Pipistrelle	*Pipistrellus nathusii*	HD, IV, Wildlife Act
Natterer's Bat	*Myotis nattereri*	HD, IV, Wildlife Act
Pine Marten	*Martes martes*	HD, V, Wildlife Act
Pipistrelle	*Pipistrellus nathusii*	HD, IV, Wildlife Act
Soprano Pipistrelle	*Pipistrellus pygmaeus*	HD, IV, Wildlife Act
West European Hedgehog	*Erinaceus europaeus*	Wildlife Act

Annex II, Annex IV, Annex V – Of EU Habitats Directive, WA – Irish Wildlife Act 1976 (As amended)

Table 4-5 NBDC records for Invasive species.

Common Name	Scientific Name
Wireweed	*Sargassum muticum*
Ruddy Duck	*Oxyura jamaicensis*
Roach	*Rutilus rutilus*
New Zealand barnacle	*Elminius modestus*
Water Fern	*Azolla filiculoides*
New Zealand flatworm	*Arthurdendyus triangulatus*
Australian flatworm	*Australoplana sanguinea*
Canadian Waterweed	*Elodea canadensis*
Bohemian Knotweed	*Fallopia japonica x sachalinensis = F. x bohemica*
Giant Knotweed	*Fallopia sachalinensis*
Giant-rhubarb	*Gunnera tinctoria*
Himalayan Knotweed	*Persicaria wallichii*
Japanese Knotweed	*Fallopia japonica*

Rhododendron ponticum	*Rhododendron ponticum*
Spanish Bluebell	*Hyacinthoides hispanica*
Three-cornered Garlic	*Allium triquetrum*
Zebra Mussel	*Dreissena polymorpha*
American Mink	*Mustela vison*
Brown Rat	*Rattus norvegicus*

Table 4-6 NBDC Records for Birds

Common Name	Scientific Name	Status
Arctic Tern	*Sterna paradisaea*	Wildlife Act HD, I Amber List
Barn Owl	*Tyto alba*	Wildlife Act Red List
Barn Swallow	*Hirundo rustica*	Wildlife Act Amber List
Bar-tailed Godwit	*Limosa lapponica*	Wildlife Act HD, I Amber List
Black Guillemot	*Cepphus grylle*	Wildlife Act Amber List
Black-headed Gull	*Larus ridibundus*	Wildlife Act Red List
Black-legged Kittiwake	*Rissa tridactyla*	Wildlife Act Amber List
Black-tailed Godwit	*Limosa limosa*	Wildlife Act Amber List
Black-throated Diver	*Gavia arctica*	Wildlife Act HD, I Amber List
Brent Goose	*Branta bernicla*	Wildlife Act Amber List
Common Coot	*Fulica atra*	Wildlife Act HD, II HD, III Amber List

Common Goldeneye	*Bucephala clangula*	Wildlife Act HD,II Amber List
Common Grasshopper Warbler	*Locustella naevia*	Wildlife Act Amber List
Common Greenshank	*Tringa nebularia*	Wildlife Act Amber List
Common Guillemot	*Uria aalge*	Wildlife Act Amber List
Common Kestrel	*Falco tinnunculus*	Wildlife Act Amber List
Common Kingfisher	*Alcedo atthis*	Wildlife Act HD, I Amber List
Common Linnet	*Carduelis cannabina*	Wildlife Act Amber List
Common Pheasant	*Phasianus colchicus*	Wildlife Act HD, II HD,III
Common Pochard	*Aythya ferina*	Wildlife Act HD, II HD, III Amber List
Common Redshank	*Tringa totanus*	Wildlife Act Red List
Common Sandpiper	*Actitis hypoleucos*	Wildlife Act Amber List
Common Scoter	*Melanitta nigra*	Wildlife Act HD, II HD, III Red List
Common Shelduck	*Tadorna tadorna*	Wildlife Act Amber List
Common Snipe	*Gallinago gallinago*	Wildlife Act HD, II HD, III Amber List
Common Starling	*Sturnus vulgaris*	Wildlife Act Amber List
Common Swift	*Apus apus*	Wildlife Act Amber List

Common Tern	*Sterna hirundo*	Wildlife Act HD, I Amber List
Common Wood Pigeon	*Columba palumbus*	Wildlife Act HD, II HD, III
Corn Crake	*Crex crex*	Wildlife Act HD, I Red List
Dunlin	*Calidris alpina*	Wildlife Act HD, I Amber List
Eurasian Curlew	*Numenius arquata*	Wildlife Act HD, II Red List
Eurasian Oystercatcher	*Haematopus ostralegus*	Wildlife Act Amber List
Eurasian Teal	*Anas crecca*	Wildlife Act HD, II HD, III Amber List
Eurasian Wigeon	*Anas penelope*	Wildlife Act HD, II HD, III Amber List
Eurasian Woodcock	*Scolopax rusticola*	Wildlife Act HD, II HD, III Amber List
European Golden Plover	*Pluvialis apricaria*	Wildlife Act HD, I HD, II Red List
European Shag	*Phalacrocorax aristotelis*	Wildlife Act Amber List
European Turtle Dove	*Streptopelia turtur*	Wildlife Act Amber List
Great Black-backed Gull	*Larus marinus*	Wildlife Act Amber List
Great Cormorant	*Phalacrocorax carbo*	Wildlife Act Amber List
Great Crested Grebe	*Podiceps cristatus*	Wildlife Act Amber List

Great Northern Diver	*Gavia immer*	Wildlife Act HD, I
Greater Scaup	*Aythya marila*	Wildlife Act HD, II HD, III Amber List
Greater White-fronted Goose	*Anser albifrons*	Wildlife Act HD, I HD, II Amber List
Grey Partridge	*Perdix perdix*	Wildlife Act HD, II HD, III Red List
Grey Plover	*Pluvialis squatarola*	Wildlife Act Amber List
Hen Harrier	*Circus cyaneus*	Wildlife Act HD, I Amber List
Herring Gull	*Larus argentatus*	Wildlife Act Red List
House Martin	*Delichon urbicum*	Wildlife Act Amber List
House Sparrow	*Passer domesticus*	Wildlife Act Amber List
Jack Snipe	*Lymnocryptes minimus*	Wildlife Act HD, II HD, III
Lesser Black-backed Gull	*Larus fuscus*	Wildlife Act Amber List
Little Egret	*Egretta garzetta*	Wildlife Act HD, I
Little Grebe	*Tachybaptus ruficollis*	Wildlife Act Amber List
Little Gull	*Larus minutus*	Wildlife Act HD, I
Little Tern	*Sternula albifrons*	Wildlife Act HD, I Amber List
Long-tailed Duck	*Clangula hyemalis*	Wildlife Act HD, II

Mallard	*Anas platyrhynchos*	Wildlife Act HD, II HD, III
Mediterranean Gull	*Larus melanocephalus*	Wildlife Act HD, I Amber List
Merlin	*Falco columbarius*	Wildlife Act HD, I Amber List
Mew Gull	*Larus canus*	Wildlife Act Amber List
Mute Swan	*Cygnus olor*	Wildlife Act Amber List
Northern Gannet	*Morus bassanus*	Wildlife Act Amber List
Northern Lapwing	*Vanellus vanellus*	Wildlife Act HD, II Red List
Northern Pintail	*Anas acuta*	Wildlife Act HD, II HD, III Red List
Northern Shoveler	*Anas clypeata*	Wildlife Act HD, II HD, III Red List
Northern Wheatear	*Oenanthe oenanthe*	Wildlife Act Amber List
Peregrine Falcon	*Falco peregrinus*	Wildlife Act HD, I
Razorbill	*Alca torda*	Wildlife Act Amber List
Red Grouse	*Lagopus lagopus*	Wildlife Act HD, II HD, III Red List
Red Knot	*Calidris canutus*	Wildlife Act Red List
Red-breasted Merganser	*Mergus serrator*	Wildlife Act HD, II

Red-throated Diver	*Gavia stellata*	Wildlife Act HD, I Amber List
Ringed Plover	*Charadrius hiaticula*	Wildlife Act Amber List
Rock Pigeon	*Columba livia*	Wildlife Act HD, II
Sand Martin	*Riparia riparia*	Wildlife Act Amber List
Sandwich Tern	*Sterna sandvicensis*	Wildlife Act HD, I Amber List
Sky Lark	*Alauda arvensis*	Wildlife Act Amber List
Slavonian Grebe	*Podiceps auritus*	Wildlife Act Amber List
Snowy Owl	*Bubo scandiaca*	Wildlife Act HD, I Amber List
Spotted Flycatcher	*Muscicapa striata*	Wildlife Act Amber List
Stock Pigeon	*Columba oenas*	Wildlife Act Amber List
Tufted Duck	*Aythya fuligula*	Wildlife Act HD, II HD, III Amber List
Twite	*Carduelis flavirostris*	Wildlife Act Red List
Water Rail	*Rallus aquaticus*	Wildlife Act Amber List
Whooper Swan	*Cygnus cygnus*	Wildlife Act HD, I Amber List
Yellowhammer	*Emberiza citrinella*	Wildlife Act Red List

4.5 Hydrological Desk Study

4.5.1 EPA Water Quality Data

The EPA map viewer was consulted on 19th September 2025. The sites are located within the Galway Bay North WFD Catchment (hydrometric area number 31). The site of the proposed development is located within the Knock [Furbo]_SC_010 hydrological sub-catchment, the Knocknacarragh_010 hydrological sub-basin and is also located within the Spiddal groundwater catchment.

The Knocknacarragh stream (order 1) (IE_WE_31K160960) and the Knocknacarragh stream (order 3) (EPA code IE_WE_31K160960) flow underground through the Millars lane and Kingston Park sites in a south westerly direction through a concrete pipe that form part of the public sewer network. This eventually empties into Rusheen Bay and provides a hydrological connection to the Galway Bay Complex SAC approximately 1.1km downstream and the Inner Galway Bay SPA approximately 1.2km downstream.

The site is located within the Spiddal Ground Waterbody, in an area of 'Extreme' and 'High' groundwater vulnerability with 'Good' Overall Groundwater Status in the Water Framework Directive (WFD) groundwater monitoring programme (2016-2021) and a WFD Risk status of 'Not at risk' as per EPA maps.

5. FIELD STUDY

5.1 Habitats Present on the Site and Surrounding Area

The habitats recorded during the site visit are described below and habitat maps are provided in Figure 5-1. The Proposed Development is split between two sites, Kingston Park and Millers Lane. Kingston Park is a greenfield site and consists of two parcels of undeveloped land. Some of this land is subjected to grazing by horses and the remainder was subjected to recent scrub clearance. The site is bisected by a local access road, known as Altan Road that connects the adjacent school and residential areas to the western distributor road.

Millers' lane consists of two sports pitches that are currently in use as well as an adjacent area of unmanaged scrub located north of the pitches. Landscaping and other infrastructure, including public paths and a planted treeline are also present within the site.

No protected habitats were recorded during walkover surveys. Suitable habitat for SCI species of Inner Galway Bay SPA and Lough Corrib SPA was present within the Millers Lane site, however this is not considered significant supporting habitat.

The culverted Knocknacarragh stream runs underground through both sites. Further details on the habitat classification in both sites are described below.

5.1.1 Kingston Park

Recolonising bare ground (ED3) (Plate 5-1) was the dominant habitat within the Kingston Park site. Created as a result of recent scrub clearance, it consisted of mainly pioneer species including hedge bindweed (*Calystegia sepium*), red shank (*Persicaria maculosa*), bramble (*Rubus fruticosus agg.*), creeping thistle (*Cirsium arvense*), cleavers (*Galium aparine)*, purple loosestrife (*Lythrum salicaria*), couch grass (*Elytrigia repens*), spiny sowthisle (*Sonchus asper*), and creeping fumitory (*Fumaria muralis*). Bare unvegetated ground was also common. This habitat was concentrated in the northern portion of the site.

In the centre of the site, the dominant habitat was **Dry-humid acid grassland (GS3) (Plate 5-2)**, spread across three fields. This grassland was in poor condition and showed signs of overgrazing and disturbance by horses on site.

Species in this habitat consisted of red fescue (*Festuca rubra*), sweet vernal grass (*Anthoxanthum odoratum*), common knapweed (*Centaurea nigra*), white clover (*Trifolium repens*), red clover (*Trifolium pratense*) and other less frequent herbaceous species including ribwort plantain (*Plantago lanceolata*), germander speedwell (*Veronica chamaedrys*), common sorrel (*Rumex acetosa*), yarrow (*Achillea millefolium*), creeping buttercup (*Ranunculus repens*), Yorkshire fog (*Holcus lanatus*), common mouse ear (*Cerastium fontanum*) and heath woodrush (*Luzula multiflora ssp Hibernica*).

Small areas of **Scrub (WS1) (Plate 5-3)** were present in the western corner of the calcareous grassland and encroaching from the treeline separating the two most northern fields. This scrub was dominated by European gorse (*Ulex europaeus*), with bramble and willow (*Salix sp.*) also present.

A small stand of **Dense bracken (HD1) (Plate 5-4)** was situated in the centre of the site, close to the eastern boundary. This area was dominated by bracken (*Pteridium aquilinum)*, with hedge bindweed, bramble and cleavers also present in lesser amounts.

Buildings and artificial surfaces (BL3) (Plate 5-5) were present along the Altan road that runs through the site. This consisted of a tarmacked road surface, with public footpaths on both sides.

A number of **Hedgerows (WL1) (Plate 5-6)** were found within the site, generally associated with old field boundaries. These host various species, including hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*) and eared willow (*Salix aurita*) with understory species including bramble and ivy (*Hedera hibernica*). Hedgerows within the site vary in densities, with some being patchy while others are continuous. The average height of hedgerows within the site is 3m. Hedgerows in the centre of the site are associated with low drystone walls classified as **Stone walls and other stonework (BL1).**

Two **Treelines (WL2) (Plate 5-7)** were present within the site. The first was located near the centre of the site, along the western boundary. This separated the site from the adjacent school grounds. It was semi-natural and continuous, and approximately 5-8m in height. Species included basket willow (*Salix viminalis*), ash (*Fraxinus excelsior),* alder (*Alnus glutinosa*), copper beech (*Fagus sylvatica* f. *purpurea)* and birch (*Betula sp.*). The first schedule invasive species Sea Buckthorn (*Hippophae rhamnoides*) was also present in this treeline. The second treeline was located along the northwestern boundary of the site, separating the site from the adjacent estate. This treeline consisted of planted birch trees that were widely spaced, creating a low value treeline.

Scattered trees were present throughout the area of recolonised ground, particularly in the northern portion of the site. These trees were semi-mature and a mixture of naturally occurring and planted. Species included Italian alder (*Alnus cordata*), sycamore (*Acer pseudoplatanus*), silver birch (*Betula pendula*) and willow species including grey willow (*Salix cinerea*), white willow (*Salix alba*), crack willow (*Salix fragilis*), and goat willow (*Salix caprea*). This corresponded to the habitat type **Immature woodland (WS2) (Plate 5-8).**

Plate 5-1 Recolonising Bare ground as the result of recent scrub clearance

Plate 5-2 Heavily grazed Dry-humid acid grassland GS3

Plate 5-3 Scrub (WS1) located in the centre of the site

Plate 5-4 Dense Bracken (HD1) located along the eastern boundary of the site

Plate 5-5 Tarmacked road (BL3) running through the site

Plate 5-6 Hedgerow (WL1) running along the existing field boundary

Plate 5-7 Treeline (WL2) along the western boundary of the site

Plate 5-8 Area of Immature woodland (WS2) in the northern portion of the site

5.1.2 Millers Lane

Millers lane is dominated by two existing football pitches, classified as **Amenity grassland (GA2) (Plate 5-9).** This grassland is highly managed and regularly mown and consists of typical grassland species including Yorkshire fog, greater plantain (*Plantago major*), perennial rye grass (*Lolium perenne*) ragwort (*Jacobaea vulgaris*), red clover, common daisy (*Bellis perennis*) and white clover.

A sloped bank on the north eastern boundary of the site was dominated by **Scrub (WS1) (Plate 5-10)** and included European gorse, sweet vernal grass, smooth meadow grass (*Poa pratensis*), Yorkshire fog, bramble, ribwort plantain, common dandelion (*Taraxacum officinale agg.*), common hogweed (*Heracleum sphondylium*), common knapweed, field horsetail (*Equisetum arvense*), white clover, red clover, yarrow, creeping thistle, and meadow buttercup (*Ranunculus acris*).

A second area of scrub formed a mosaic habitat with areas of **Dry meadows and grassy verges (GS2) (Plate 5-11)**, located north of the football pitches. This area consisted of species typical of grassy verges, including rosebay willow herb (*Chamerion angustifolium*), sweet vernal grass, false oat grass (*Arrhenatherum elatius*), smooth meadow grass, perennial rye grass, ribwort plantain, common hogweed, knapweed, broad-leaved dock (*Rumex obtusifolius*), hedge bindweed, tormentil (*Potentilla erecta*), common dandelion, and red fescue. This graded into scrub dominated by European gorse, hedge bindweed and bramble.

A well spaced, planted **Treeline (WL1)** was present along the southern boundary of the site. This consisted of silver birch, goat willow and eared willow. A poorly maintained strip of **Flower beds and borders (BC4) (Plate 5-12)** was associated with this treeline, and consisted of planted non-native species alongside native species including great willowherb (*Epilobium hirsutum*), small hoary willowherb (*Epilobium parviflorum*), common dandelion, creeping buttercup (*Ranunculus repens*), Yorkshire fog, perennial rye grass, common daisy, common ragwort, meadow buttercup, white clover, short fruited willowherb (*Epilobium obscurum*) and coralberry (*Symphoricarpos × chenaultii*).

A area of grassy verge was located along the eastern boundary of the site. This area was bisected by a path with public seating. Species in this area included Ribwort plantain, cocks foot grass, meadow foxtail, creeping buttercup, common dandelion, red clover, greater plantain, broad leaved dock, yarrow, wild carrot, oxeye daisy. Immature trees were planted sporadically throughout, including hawthorn, rowan, and silver birch.

The remaining area of the site consisted of tarmacked hard surfaces that provided public walkways and storage areas and a stone and block boundary wall along the southern boundary. These habitats were classified as **Buildings and artificial surfaces (BL3).**

Habitat maps of both Millers Lane and Kingston Park are included in Figures 5-1 and 5-2 below

Plate 5-9 Existing football pitches, classified as Amenity grassland (GA2)

Plate 5-10 Scrub (WS1) on a slope above football pitch

Plate 5-11 Area of Grassy verge (GS2) to the north of the football pitches

Plate 5-12 Flower beds and borders (BC4) with associated treeline

Map Legend

- Red Line Boundary
- Flower beds and borders
- Buildings and artificial surfaces
- Amenity grassland (improved)
- Dry meadows and grassy verges
- Scrub
- Buildings and Artificial Surfaces
- Treelines

Drawing Title
Kingston Park and Millers Lane - Public Park and Urban Realm Project

Project Title
Millers Lane Habitat Map

Drawn By	Checked By
MK	PR
Project No.	Drawing No.
240298	Figure 5-1
Scale	Date
1:1,500	28.10.2025

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Drawing Title

Kingston Park Habitat Map

Project Title	
Kingston Park and Millers Lane - Public Park and Urban Realm Project	
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Project No.: 240298	Drawing No.: Figure 5-2
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5.1.3 Invasive Species

A single plant of Sea Buckthorn (*Hippophae rhamnoides*), an invasive species listed under First Schedule of the European Union (Invasive Alien Species) Regulations 2024 (S.I. No. 374 of 2024) and the Third Schedule under Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011) was recorded growing in the treeline located between the site of Kingston Park and the adjacent St. John the Apostle National School.

5.2 Fauna Present on the Site and Surrounding Area

The walkover survey was designed to detect the presence, or likely presence, of a range of protected species, including birds, bats, otter and badger. Potential suitable habitats were investigated for signs of animal presence.

No significant evidence or signs of protected faunal species was recorded during the general multidisciplinary walkover survey. As such, no further additional dedicated faunal surveys were conducted. In addition to the above survey dates, searches for faunal signs/sightings were also made during other surveys undertaken, including bat
surveys and bird surveys.

5.2.1 Birds

The species recorded during the dedicated Breeding and Wintering bird surveys were those typical of suburban/ urban environments and are detailed in the sections below.

5.2.1.1 Wintering Bird Survey Results

The results of the wintering bird surveys undertaken during the 24/25 season are summarised in Table 5-1 below. Full results of all birds, including non-target species and flyovers are available in Appendix 6.

Kingston Park

No Target species were recorded using the site at Kingston Park during the wintering bird surveys.

Millers Lane

Table 5-1 Wintering Bird Survey Records for Millers Lane

Common Name and Conservation Status	Date	Behaviour
Common gull (*Larus canus)* Amber listed (breeding and wintering). Listed SCI species of Lough Corrib SPA and Inner Galway Bay SPA	23/10	10-15 individuals feeding on football pitches.
	14/11	5 individuals feeding on pitches
	4/12	8 individuals feeding on pitches

	24/01	13 individuals feeding on pitches
	14/02	No birds recorded
	26/03	No birds recorded
Black-headed gull (*Larus ridibundus*) Amber listed (breeding and wintering). Listed SCI species of Lough Corrib SPA and Inner Galway Bay SPA	23/10	50-60 individuals feeding on football pitches
	14/11	20 individuals feeding on football pitches
	4/12	14 individuals feeding on football pitches
	22/1	6 individuals feeding on football pitches
	14/02	No birds recorded
	26/03	No birds recorded

5.2.1.2 Breeding Bird Survey Results

The results of the three breeding bird surveys undertaken in Spring/ Summer 2025 are summarised in Table 5-2 and Table 5-3 below. Full results of all birds, including non-target species and flyovers are available in Appendix 8.

Kingston Park

Table 5-2 Summery of Breeding Bird Results for Kingston Park

Common Name and Conservation Status	Date	Behaviour
Starling (*Sturnus vulgaris)* Amber listed (breeding)	13/06	Heard not seen
	13/05	3 Foraging in Grass
Greenfinch (*Chloris chloris)* Amber listed (breeding)	13/06	Pair displaying courtship behaviour
Willow Warbler (*Phylloscopus trochilus)* Amber listed (breeding)	13/05	On telegraph line within site
Linnet (*Linaria cannabina*) Amber listed (breeding)	13/05	In hedgerow
Goldcrest	13/05	In hedgerow

Millers Lane

Table 5-3 Summery of Breeding Bird Results for Millers Lane

Common Name and Conservation Status	Date	Behaviour
Starling (*Sturnus vulgaris)* Amber listed (breeding)	17/04	4 Foraging in Grass
	17/04	1 in tree

Other bird species recorded within the site during the breeding bird surveys include the following: Blackbird, wren, jackdaw, Magpie, Dunnock, Rook, Woodpigeon, Goldfinch, Feral Pigeon, Song thrush, Great tit, Pied wagtail, Pheasant, Blue tit, Blackcap, and Chaffinch.

The treelines, scrub and hedgerow habitats within the site provide a small amount of nesting and foraging habitat for a range of common bird species.

5.2.2 Bats

Six bat species were recorded commuting and foraging across the proposed development site (Kingston Park & Miller's Lane) during the bat surveys carried out between May and September 2025, including soprano pipistrelle, common pipistrelle, Leisler's bat, brown long-eared bat, Myotis spp. and Nathusius' pipistrelle.

No roosts were recorded during the 2025 seasonal surveys, and the sites do not present suitable roosting features for bats.

The existing landscape occurring within the Kingston Park site boundary provides Moderate quality habitats for commuting and foraging bats, especially along the linear features bordering the site. Whilst the Millers Lane site provides relatively Low quality habitats for commuting and foraging bats, the most suitable being in the south of the site. The Key Bat Habitats are mapped in Figure 5-1 and 5-2 below.

No Lesser horseshoe bats were recorded throughout any of the survey periods.

Bats are discussed in detail in the dedicated bat report appended to this report and can be viewed in Appendix 6.

5.3 Importance of Ecological Receptors

Table 5-4. lists all identified receptors and assigns them an ecological importance in accordance with the Guidelines for Assessment of Ecological Impacts of National Road Schemes (NRA, 2009). This table also provides the rationale for this determination and identifies the habitats that are Key Ecological Receptors.

Table 5-4 Importance of Ecological Receptors

Habitat and Geographic Importance	KER Y/N	Rationale
Designated Sites		
European Designated Sites: › Galway Bay Complex SAC [000268] › Inner Galway Bay SPA [004031] International Importance	*Y*	A potential pathway for indirect effects on Galway Bay Complex SAC [000297] and Inner Galway Bay SPA [004031] via deterioration of water quality resulting from run-off of pollutants during the construction and operational phases of the Proposed Development. **Therefore, these European sites are included as KERs.**
Nationally Designated Sites: › Galway Bay Complex pNHA [000268] National Importance	*Y*	A potential pathway for indirect effects on Galway Bay Complex pNHA [000297] via deterioration of water quality resulting from run-off of pollutants during the construction and operational phases of the Proposed Development. **Therefore, this National site is included as a KER.**
Habitats		
› Treeline (WL2) › Hedgerow (WL1) › Scrub (WS1)/ recolonising bare ground (ED2) › Immature Woodland (WS2) Local Importance (Higher Value)	*Y*	Hedgerow, Treeline, Scrub and Immature Woodland habitats identified within the Proposed Development site have been classified as habitats of Local Importance (higher value) as they provide nesting habitat, cover, commuting corridors, foraging habitat and serve in maintaining connectivity to the wider landscape for a variety of local fauna. There will be some loss of these habitats because of the Proposed Development. **Therefore, these habitats are included as KERs.**
› Dry-humid acid grassland (GS3)) › Buildings and Artificial Surfaces (BL3) › Dry Meadows and Grassy verges (GS2) › Stone walls and other stonework (BL1)	*N*	These habitats have been assigned local importance (Lower Value) as they have limited potential to support biodiversity and are common and widespread in the wider area. **Therefore, these habitats are not included as KERs.**

› Amenity Grassland (GA2) Local Importance (Lower Value)		
Flora and Fauna		
Birds Local Importance (Higher Value)	*Y*	Following on from the bird survey results, the Proposed Development site does not provide significant suitable supporting habitat which SCI bird species or protected bird species are dependent on. However, treelines, scrub and hedgerow within the site provide a small amount of nesting and foraging habitat for a range of common bird species. As there will be some loss of these habitats, taking a highly precautionary approach, birds have been assessed as of Local Importance (higher value) **and are included as a KER**
Bats Local Importance (Higher Value)	*Y*	Bats as an Ecological Receptor have been assigned **Local Importance (Higher value**) on the basis that the habitats within the study area are utilized by a regularly occurring bat population of Local Importance. **Therefore, bats are included as a KER**.
Invasive species	*Y*	Sea Buckthorn *(Hippophae rhamnoides)* an invasive species listed on the first and third schedules was recorded within the Kingston Park site. If left unmanaged and untreated, these species are at risk of spreading further in the surrounding locality. **Therefore, invasive species are included as a KER.**
Additional protected fauna (e.g. marsh fritillary, Irish hare, pine marten, badger etc). Local Importance (higher value)	*N*	No other protected fauna were recorded within or adjacent to the Proposed Development and the habitats within the site do not provide suitable habitat to support significant populations of any protected fauna. **Therefore, no additional species are included as** **KERs.**

6. ECOLOGICAL IMPACT ASSESSMENT

6.1 Do Nothing Impact

Millers Lane consists of two existing football pitches classified as Amenity Grassland and an area of unmanaged scrub, if the proposed development was not to go ahead, it is likely that these habitats would remain unchanged.

The Kingston Park site consists of grazed calcareous grassland, immature woodland and small sections of gorse and bramble scrub. There are also areas of bare-recolonising ground that are remaining after recent scrub clearance. If the proposed development was not to go ahead, these areas of bare re-colonising ground would likely continue to re-vegetate.

6.2 Impacts during Construction

6.2.1 Impacts on Habitats

The habitats considered as Local Importance (Lower Value) that will be lost to the footprint of the Proposed Development include;

- Dry Meadows and Grassy Verges (GS2)
- Stone Walls and other Stonework (BL1)
- Building and artificial surfaces (BL3)
- Dry-humid acid grassland (GS3)
- Amenity Grassland (GA2)
- Dense bracken (HD1)
- Flower beds and borders (BC4)

These habitats, while they contain small areas of semi-natural habitat that are of some importance to wildlife, are common and widespread in the locality. These habitats are not considered as Key Ecological Receptors (KERs) as they are of Local Importance (Lower Value). The effect is assessed as non-significant impact on a receptor of Local Importance (Lower Value) and therefore no mitigation is required. Consequently, their loss does not constitute a significant effect on biodiversity, and they are not considered further in this assessment.

The construction of the Proposed Development will result in the loss of the following habitats:

Kingston Park

A large portion of the site consists of recolonising bare ground that has recently been cleared and is now succeeding to scrub. This area was cleared of scrub prior to the walkover survey being undertaken and has been considered in the impact assessment below. In parts, this scrub habitat formed a mosaic habitat with a small area of Immature woodland. This Immature woodland, the recolonising bare ground and an area of remaining scrub, located close to the southern boundary of the site will be lost during the construction phase of the Proposed Development.

The existing hedgerows, located along the southern boundary, and the field boundaries of the two grazed fields located in the southern portion of the site will be lost during construction.

Millers Lane

The scrub habitat in the north of the site, in addition to the scrub along the eastern boundary of the eastern playing pitch will be lost during construction of the Proposed Development. Additionally, five existing trees along the existing pedestrian path close to the southwestern edge of the site will be removed.

These habitats have been identified as KER's and the impact of there is described further below.

6.2.1.1 Assessment of Effects of the loss of Scrub (WS1), and Immature Woodland (WS2)

Table 6-1 Assessment of impacts on Scrub (WS1) and Immature Woodland (WS2)

Description of Effect	There will be a total loss of approximately 1.8ha of Scrub (WS1) habitat within the Kingston Park site and approximately 0.43ha of Scrub (WS1) habitat within the Millers Lane site as a result of the Proposed Development. This habitat consists primarily of gorse and bramble, in addition to some willow and hawthorn. Additionally, a total of 0.14ha of Immature Woodland (WS2) will be lost at the Kingston Park site during the construction of the Proposed Development. The loss of the Scrub and Immature Woodland habitat within the Proposed Development site may result in habitat fragmentation, and the loss of potential nesting, and foraging habitat suitable for a range of local wildlife.
Assessment of Significance prior to mitigation	The loss of approximately 2.23ha of Scrub (WS1) and 0.14ha of Immature Woodland (WS2) habitats to facilitate the Proposed Development is considered to be significant at a local geographical scale only.
Mitigation	In order to mitigate the loss of these habitats, a landscaping plan has been prepared by DRLA and is available in Appendix 5. To compensate for the loss of scrub, the following biodiversity-friendly measures have been proposed: › The use of native species will generally be preferred. However, a complimentary element of non-native species will also be used, where appropriate. These will be selected in line with guidance from the 'All-Ireland Pollinator Plan'. › Proposed tree planting includes a selection of native and naturalised trees such as Field Maple, Wild Cherry, Pedunculate Oak, Rowan, Silver Birch, Crab Apple, Alder, Downey Birch and Common Hornbeam. The use of these trees will provide vertical scale and structure to the landscape over time, as well as ecological benefits. › Approximately 138 trees will be planted within the Kingston Park site, in addition to 0.15 ha of woodland edge planting, along with 0.19 ha of rain garden and pollinator friendly shrub planting. › A total of 137 trees will be planted in Millers Lane, along with 0.26ha of raingarden planting, woodland edge planting and perennial and shrub planting. › Areas of long and short flowering meadows, maintained in line with guidance from the All-Ireland Pollinator plan will be implemented across both sites. Meadow seed mix will be sourced from a native Irish wildflower seed grower, registered with the Department of Agriculture, Food and the Marine (DAFM).
Residual Effect following Mitigation	The loss of scrub habitat will not result in a significant effect at anything other than a local significant scale.

6.2.1.2 Assessment of Effects of the Loss of Hedgerow (WL1) and Treeline (WL2)

Table 6-2 Assessment of the loss of Treeline and Hedgerow Habitat

Description of Effect	There will be a loss of approximately 109m of hedgerow within the Kingston Park site during the construction of the Proposed Development. Species to be removed include hawthorn, blackthorn ivy and bramble. There will be a loss of approximately 28m of treeline within the Millers Lane site to facilitate the Proposed Development. This treeline exists as a short, planted treeline, with willow and crab apple, bordering the existing pedestrian path. The loss of linear habitat within the Proposed Development site may result in the loss of foraging and commuting habitat for a range of local wildlife.
Assessment of Significance prior to mitigation	The loss of approximately 109m of Hedgerow (WL2) and 28m of Treeline (WL2) habitats to facilitate the Proposed Development is considered significant at the local geographic scale only.
Mitigation	In order to mitigate for the loss of hedgerow, it is proposed to plant a total of 660m of double hedgerows along the boundary of Kingston Park. This hedgerow will consist of a mix of native and suitable non-native naturalised species, including hawthorn, downy birch, holly, elder, dog rose, blackthorn, Scotts pine and hazel. In Millers Land it is proposed to plant 95m of double hedging that will be maintained as a clipped hedge ranging in height from 1.2-2m. This hedgerow will consist of a mix of hawthorn, field maple and hornbeam.
Residual Effect following Mitigation	With the implementation of mitigation measures outlined above no significant residual effects are anticipated on hedgerows and treelines as a result of the Proposed Development

6.2.1.3 Impacts on Water Quality

Table 6-3 Assessment of the potential impacts on water quality during the construction phase

Description of Effect	The EPA mapped watercourse, the Knocknacarragh stream flows through the Proposed Development site. This watercourse is culverted and piped underground where it forms part of the stormwater network. Stormwater drains within the site flow into this network. In the absence of mitigation, there is potential for deterioration to surface water quality at a local level via the release of pollutants and other contaminants into the Knocknacarragh watercourse.
Assessment of Significance prior to mitigation	The deterioration of water quality in the local area due to pollutants resulting from the construction phase works to facilitate the Proposed Development would be considered significant at the local geographic scale only.
Mitigation	A project-specific Construction Environmental Management Plan (CEMP) has been prepared by MKO and is available in Appendix 9. The plan covers all potentially polluting activities and includes an emergency response plan. The following summarises the measures that are prescribed for the protection of surface waters, as detailed in the CEMP:

- The site compounds will be established within the site boundary. The exact location of the site compounds will be established by the contractor. All construction materials and substances inclusive of the site compounds and will be located a minimum of 30 m from any drains. The compounds will be used for storage of material, machinery, fuel, and workers facilities.
- The works will be managed to ensure there will be no silt-laden run-off beyond the site boundary or into any nearby drains. This will be achieved through the use of appropriate excavation techniques during the initial construction works. Where necessary, silt fencing will be installed downslope of the construction areas, particularly where drains or drainage pathways are present. These measures will serve as a protective measure to contain silt material within the site.
- Any requirement for temporary fills or stockpiles will be damped down or covered with polyethylene sheeting as required to avoid sediment release associated with heavy rainfall.
- Excavated spoil will be stockpiled and contained entirely within the confines of the site boundaries.
- If groundwater is encountered during excavations, waters will be pumped from excavation and discharged through a pipe with a silt bag attached on to an area of overland vegetation within the site boundary. It should be noted that due to the extent of the excavations proposed, that the likelihood of encountering groundwater ingress is anticipated to be low.
- All diesel or petrol pumps required onsite will be operated within bunded units, these units will not be located within 30 m of any drains.
- Exposed surfaces will be re-vegetated as soon as possible following construction.
- Where possible, earthworks will not be carried out during periods of heavy rainfall.
- Daily monitoring and inspections of site drainage and silt fencing during construction will be completed by the appointed environmental officer;
- Good construction practices will be implemented at the site. This will ensure minimal risk. The Construction Industry Research and Information Association (CIRIA) provide guidance on the control and management of water pollution from construction sites ('Control of Water Pollution from Construction Sites, guidance for consultants and contractors', CIRIA, 2001)1, which provides information on these issues. This will ensure that surface water arising during the course of construction activities will contain minimum sediment.

The following mitigation measures are proposed to avoid release of cement leachate from the sites:

- No batching of wet-cement products will occur on the sites.
- Ready-mixed supply of wet concrete products and where possible, emplacement of pre-cast elements, will take place.
- No washing out of any plant used in concrete transport or concreting operations will be allowed on-sites.
- Where concrete is delivered on the sites, only chute cleaning will be permitted, using the smallest volume of water possible.
- No discharge of cement contaminated waters to the construction phase drainage system or directly to any stormwater drain will be allowed.
- Use weather forecasting to plan dry days for pouring concrete.
- Ensure pour site is free of standing water and plastic covers will be ready in case of sudden rainfall event.

The following measures are proposed to avoid release of hydrocarbons at the site:

[1] Construction Industry Research and Information Association (CIRIA) (2001): 'Control of Water Pollution from Construction Sites: Guidance for Consultants and Contractors'. CIRIA UK. Available at: https://www.ciria.org/

	› Storage/refuelling shall occur in a designated area of the construction sites, located a suitable distance from excavation works. This area should be underlain by impermeable hard standing, and tanks should be inspected for leaks regularly. Spill kits should be supplied at these stations and staff should be trained in their use and in spill control. Drainage from these areas shall be diverted for collection and not discharged into municipal drains without treatment and other best management practices. › On site refuelling will be directly done from delivery trucks or stored fuel within bunded fuel tanks. Mobile measures such as drip trays and fuel absorbent mats will be used during all refuelling operations. › Vehicles will never be left unattended during refuelling; only dedicated trained and competent personnel will perform refuelling operations; plant refuelling procedures shall be detailed in the contractor's method statements. › Fuels, lubricants and hydraulic fluids for equipment used on the site will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment. › Storage of the small volume of fuels, lubricants and hydraulic fluids on-site will be placed secured in appropriately bunded storage areas within the boundaries of the Proposed Development site. › Storage bunds/trays, if required will be constructed of an impermeable membrane (High density polyethylene (HDPC) Plastic) and will have the adequate capacity to contain the volume of the liquids contained therein, if a leak/spillage does occur from one of the storage vessels. › All sites plant will be inspected at the beginning of each day prior to use. Defective plant shall not be used until the defect is satisfactorily fixed. All major repair and maintenance operations will take place off-site.
Residual Effect following Mitigation	With the implementation of mitigation measures outlined above no significant residual effects are anticipated on water quality as a result of the Proposed Development

6.2.1.4 Invasive Species

Table 6-4 Assessment of the potential effects associated with invasive species

Description of Effect	The first and third schedule invasive species, Sea Buckthorn, was recorded growing in the treeline located between the site of Kingston Park and the adjacent St. John the Apostle National School, its location is shown in Figure 6-1.
Assessment of Significance prior to mitigation	In the absence of best practice and appropriate mitigation, works associated with the construction of the Proposed Development (e.g. earthworks, soil stripping, tracking of heavy machinery through the site etc) has the potential to exacerbate the spread of this invasive plant species to the wider environment, which would be considered significant at the local geographic scale.
Mitigation	Due to the infestation within the site being limited to a single plant, chemical treatment is considered adequate control. The following measures describe the recommended treatment methodology for Sea Buckthorn: › Treatment of the Sea Buckthorn plant will be undertaken prior to the commencement of works on the Proposed Development. › The plant will be cut to the stump and treated with a glyphosate-based herbicide by painting the stump or through the use of eco plugs. › Treatment can be undertaken year round. › The vegetation material will be disposed of by burning or incineration. › If for any reason, burning of plant material is not feasible on-site this material must be gathered and disposed of off-site, to a waste disposal facility that has a pollution prevention and control permit or waste management licence.

	› In order to move material potentially contaminated with Third or First Schedule invasive plant species, a licence is required to be obtained from NPWS. The conditions of the permit or licence of the waste disposal facility must allow the disposal of invasive plants at the site. Delivery will be agreed with the waste site in advance to make sure they can accept material containing invasive plants. When transporting invasive plant material and soil potentially contaminated with invasive plant material, any vehicle used will be covered or securely sheeted so that plant material cannot be accidentally dispersed during transportation. › Following the initial removal, treatment and completion of the development, the treated areas will be resurveyed annually and if necessary, re-treated until no growth of Sea Buckthorn is recorded for two consecutive years. If Sea Buckthorn is found to be reestablishing, it will be treated as per the measures outlined above. The following site hygiene measures will be adhered to throughout the duration of the proposed construction works: › All works in relation to invasive species will be supervised by the Ecological Clerk of Works (ECoW). › After treatment has taken place, the sea-buckthorn stump should be left in-situ and fenced off. This will prevent any accidental spread of the plant via machinery used during the construction of the Proposed Development. › The contractor will assign a member of their team as an Environmental Officer to ensure the management plan is adhered to throughout the proposed works. › As a precautionary measure, machinery will be thoroughly cleaned down before entering the site to prevent potential spread of invasive species from elsewhere. › Clean down will be carried out using brushes and shovels and power washing avoided. This is to prevent potentially contaminated run-off spreading outside the site. › Any material imported to the site will be screened for invasive species by an Ecological Clerk of Works before transportation to the site.
Residual Effect following Mitigation	Following the incorporation of the treatment measures outlined above, no significant effects with regards to invasive plant species are anticipated at any geographic scale.

Map Legend

Sea Buckthorn Location

Red Line Boundary

N

Drawing Title

Sea Buckthorn Location

Project Title

Kingston Park and Millers Lane - Public Park and Urban Realm Project

Drawn By	Checked By
MK	PR
Project No. 240298	Drawing No. Figure 6-1
Scale 1:1,800	Date 28.10.2025

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6.2.2 Impacts on Fauna

The effects on faunal species that have been identified as Key Ecological Receptors to facilitate construction are described in the following sections.

6.2.2.1 Assessment of the Potential Effects on Bats

Table 6-5 Assessment of the potential impacts on bats during the construction phase

Description of Effect	**Loss of Commuting and Foraging Habitat** The Proposed Development will result in the loss of existing scrub and linear habitats within the site. Their loss will result in an indirect impact on bats via the loss of commuting and foraging habitat. The site at Kingston Park is considered to have Moderate suitability quality habitats for commuting and foraging bats due to the presence of linear features bordering the site. The site at Millers Lane is considered to have Low suitability for foraging and commuting bats.
	Disturbance During the construction phase, no works are proposed during nighttime hours. Temporary lighting may be required if works are taking place in the winter months. In addition, the construction phase of the Proposed Development will result in an increase in disturbance to local bat species in the form of noise. In the absence of appropriate mitigation, there is potential for the disturbance to local bat populations during the construction phase of the Proposed Development.
Assessment of Significance prior to mitigation	**Loss or damage to commuting and foraging habitat** The loss of areas of scrub as well as sections of hedgerows and treelines is considered significant at a local geographic scale only.
	Disturbance In the absence of mitigation, the potential for temporary disturbance during the construction phase to local bat populations would be considered significant at the local geographic scale only.
Mitigation	**Loss or damage to commuting and foraging habitat** As described in sections 6.2.1.1 and 6.2.1.2, a landscape plan has been designed to compensate for the loss of existing habitats within the Proposed Development site. The following measures may offer benefits to local bat populations post construction: › The proposed landscape plan aims to create a number of linear green corridors suitable for bat feeding. › The proposed planting measures will result in the creation of 95m of hedgerow at the Millers Lane site, and a total of 66m of hedgerow at the Kingston Park site. This will offset the loss of linear features needed to facilitate the Proposed Development. › Areas of woodland edge habitat, and the planting of additional native and naturalised trees will help to increase the available foraging habitat for bats post construction.
	Disturbance/ displacement The following mitigation measures will be implemented during the construction phase of the Proposed Development to minimise disturbance to the local bat population:

	› All plant will be maintained in satisfactory condition, and in accordance with manufacturer requirements. Maintenance and lubrication of bearings and other moving parts will be undertaken as specified by the manufacturer. › Exhaust and silencer systems on plant will be maintained in a satisfactory condition and operating correctly at all times. Defective silencers will be immediately replaced. › Plant and machinery with low inherent potential for generation of noise and/or vibration will be selected. › The requirement to house continuously operating plant in sound-attenuating enclosures or casings will be assessed on-site. › Equipment not in active use will be shut down. › The proposed construction working hours will be 07:00 – 19:00 Monday to Friday and 08:00 – 16:30 on Saturday. Construction will not take place at the sites on Sundays or Public Holidays. › Temporary artificial lighting that may be used during construction must be turned off when not in use.
Residual Effect following Mitigation	With the implementation of mitigation measures outlined above no significant residual effects are anticipated on local bat populations as a result of the Proposed Development

6.2.2.2 Assessment of the Potential Effects on Birds

Table 6-6 Assessment of the potential impacts on birds during the construction phase

Description of Effect	There will be a loss of approximately 2.23ha of Scrub (WS1), 0.14ha of Immature Woodland (WS2), 109m of Hedgerow (WL2) and 28m of Treeline (WL2) in order to facilitate the Proposed Development. The loss of these habitats within the Proposed Development may result in habitat fragmentation and loss of foraging and nesting habitat for a range of local common and widespread bird species. The construction phase of the Proposed Development has the potential to result in some habitat loss and disturbance to local bird species, potentially leading displacement from the area. In addition, if site clearance is undertaken during the bird nesting season, it could potentially lead to the destruction or disturbance of nests and potentially to mortality to juvenile birds in the nest.
Assessment of Significance prior to mitigation	In the absence of mitigation, the potential for temporary disturbance and mortality during the construction phase to local bird populations would be considered significant at the local geographic scale only.
Mitigation	As described in section 6.2.1.1 above, a landscaping plan has been prepared by DRLA, and is available in Appendix 5. In order to compensate for the loss of habitat that has the potential to support local bird populations, the following biodiversity-friendly measures have been proposed: › Proposed tree planting includes a selection of native and naturalised trees such as Field Maple, Wild Cherry, Pedunculate Oak, Rowan, Silver Birch, Crab Apple, Alder, Downey Birch and Common Hornbeam. The use of these trees will provide vertical scale and structure to the landscape over time, as well as ecological benefits. › Approximately 138 trees will be planted within the Kingston Park site, in additional to 0.15 ha of woodland edge planting, along with 0.19 ha of rain garden and pollinator friendly shrub planting.

	› A total of 137 trees will be planted in Millers Lane, along with 0.26ha of raingarden planting, woodland edge planting and perennial and shrub planting. › It is proposed to plant a total of 660m of double hedgerows along the boundary of Kingston Park. This hedgerow will consist of a mix of native and suitable non-native naturalised species, including hawthorn, downy birch, holly, elder, dog rose, blackthorn, Scotts pine and hazel. › In Millers Land it is proposed to plant 95m of double hedging that will be maintained as a clipped hedge ranging in height from 1.2-2m. This hedgerow will consist of a mix of hawthorn, field maple and hornbeam. › Birdboxes will be installed in suitable location within both parks. These will provide nesting habitat for passerines using the site. Site clearance to facilitate the construction phase of the Proposed Development will be undertaken outside of the nesting bird season (1st March – 31st August) to ensure compliance with the Wildlife Act. If vegetation clearance is required during the nesting bird season, this will be preceded by a nesting bird survey, and if any nesting birds are recorded - the area will be avoided until the young have fledged and the nest is vacated. All clearance works supervised by an appropriately qualified ecologist.
Residual Effect following Mitigation	With the implementation of mitigation measures outlined above no significant residual effects are anticipated on local bird populations as a result of the Proposed Development

6.3 Operational Phase

An assessment of the potential impacts on water quality, habitats and fauna as a result of the operational phase of the development is presented in this section. A range of mitigation measures to ensure that there are no significant residual effects on biodiversity as a result of the Proposed Development are also included in the sections below.

6.3.1 Impacts on Habitats

The operation of the Proposed Development will not result in any additional land take or loss of any habitats and as such there is no potential for any significant effects in this regard. There will be no additional loss or degradation of terrestrial habitats associated with the operational phase of the Proposed Development. Potential for impacts on aquatic and other sensitive habitats as well as bats, identified as KERs during operation is assessed in detail in the tables below.

6.3.1.1 Assessment of Potential Effects on Water Quality

Table 6-7 Assessment of Potential Effects on Water Quality

Description of Effect	The Proposed Development will result in increased hard surfaces within the Proposed Development site which has the potential to result in indirect impacts on aquatic ecological receptors as a result of deterioration in water quality arising from the run-off of pollutants, if surface water run-off is not adequately treated, during the operational phase of the development. The operational phase of the Proposed Development will result in an increase in foul water generated in the locality, compared to existing conditions. If not adequately constructed and treated, there is potential for indirect impacts on surface water quality.

	As described in the accompanying Natura Impact Statement, the potential for adverse effects on the qualifying features of European Sites were identified - Galway Bay Complex SAC and Inner Galway Bay SPA. In the absence of mitigation there is potential for the deterioration to water quality to impact the aquatic influenced QIs/SCIs designated as part of these European sites during the operational phase.
Assessment of Significance prior to mitigation	In the absence of mitigation, the potential for a deterioration in water quality of the receiving environment during the construction phase would be considered significant at the local geographic scale only. Could have an effect on receptors of international importance, but the magnitude would be silght
Mitigation	Potential for effects on water quality associated with the production of foul waters and surface water runoff from the site has been fully mitigated through appropriate design and mitigation as fully described in the Engineering Planning Report, available in Appendix 2. In terms of foul waters generated, it is proposed to connect the new community centre at Kingston Park the existing foul water drainage system via a new 150mm diameter sewer at Kingston Park. It is proposed connect the community centre at Millers Lane to the existing 300mm foul water sewer that runs through the site. The surface water design includes a range of SuDS measures which have been strategically located across the development and will control the rate of surface water discharge to the receiving surface water network and increase the quality of such discharge. Measures include tree pits, filter drains, rain gardens, permeable paving, and green roofs. These mitigations are detailed further in the Landscape Plan, included in Appendix 5 and the Engineering Planning report included in Appendix 2.
Residual Effect following Mitigation	With the implementation of the prescribed mitigation measures, no significant residual effects are predicted.

6.3.2 Impacts on Fauna

The mitigation measures and SuDS design outlined in Table 6-7 above will serve to protect all aquatic faunal species from adverse effects during operation of the Proposed Development. As such this effect is not discussed further in relation to fauna, including sensitive aquatic fauna and otter.
Birds and bats have been identified as KERs. Birds will not be further affected during the operational phase, as the local bird population are habituated to human disturbance and will not experience any significant increase in the level of disturbance during the operation of the Proposed Development.

However, there is potential for significant effects on bats during the operational phase of the Proposed Development as a result of additional lighting installed as part of the Proposed Development. These potential effects are described in the following section.

6.3.2.1 Impacts on Bats

Table 6-8 Assessment of the potential effects on bats during the operational phase

Description of Effect	The Proposed Development will include the installation of additional lighting within the site. This has the potential to cause the disturbance of disruption of established foraging and commuting corridors for bats on- or adjacent to the site of the Proposed Development. This constitutes a permanent, negative effect on the local bat population.
Assessment of Significance prior to mitigation	Disturbance due to increased lighting during the operation of the Proposed Development has the potential to have a significant effect on a receptor of Local Importance (higher value).
Mitigation	The lighting plan is included in Appendix 10. The lighting plan has been designed with consideration of the Bat Conservation Ireland (Bats and Lighting: Guidance Notes for Planners, Engineers, Architects and Developers, BCI, 2010) and Bat Conservation Trust (Guidance Note 08/23 Bats and Artificial Lighting at Night (BCT, 2023), to minimise light spillage, and thus reducing any potential disturbance to bats. The proposed lighting scheme includes low-spill, energy-efficient LED lights with a warm 2700 K colour temperature, mounted on 4.5 m poles. Lighting layout has been designed to avoid direct illumination of key ecological features such as linear features to the east, west and south. Lights throughout the site are positioned to face inward toward the development, and existing or proposed vegetation will further screen lighting from sensitive habitats. These design choices are in line with ILP Guidance (E3 Environmental Zone) and help to minimise light spill, sky glow, and glare. Further details of lighting proposed can be found in Lighting Design Pack. The following recommendations were taken into consideration with the design of the proposed development: › Floodlighting will only be used between September and April (ie. Outside the main bat activity period) and must be turned off within one hour after matches or training sessions, controlled either by a timer or under strict caretaker management. The colour temperature will be no more than 3000K. › All other column and bollard lighting throughout the sites will be 2700k and no light is emitted into the upper half-space of the luminaire › Dark zones should be maintained to the south, east and west of Kingston Park (as seen within the Landscape plan) with full cut-off, baffles & tight spill controls, no column lighting and ≤ 0.5-1 lux at the edge with 0 lux in core.
Residual Effect following Mitigation	Following the implementation of the prescribed mitigation measures and lighting design, no significant residual effects on bats are predicted.

6.4 Decommissioning Phase

It is not intended that the Proposed Development will be removed, as permanent planning permission is being sought for this development. The Proposed Development will form an integral part of the Knocknacarra area and will provide an essential amenity space. Therefore, it is intended that the Proposed Development will be retained as permanent and will not be decommissioned.

6.5 Impacts on Designated Sites

6.5.1 Impacts on European Sites

As per the EPA Guidance (2022):

"A biodiversity section of an EIAR, for example, should not repeat the detailed assessment of potential effects on European sites contained in documentation prepared as part of the Appropriate Assessment process, but it should refer to the findings of that separate assessment in the context of likely significant effects on the environment, as required by the EIA Directive". This section provides a summary of the key assessment findings with regard to Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

This section provides a summary of the key assessment findings with regard to Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

In relation to European sites, an Appropriate Assessment Screening Report (AASR) and Natura Impact Statement (NIS) has been prepared to provide the competent authorities with the information necessary to undertake an Appropriate Assessment. The following European Sites were identified as having the potential to be affected by the Proposed Development:

- Galway Bay Complex SAC [000268]
- Inner Galway Bay SPA [004031]

The potential for impact on European sites has been fully assessed in the Natura Impact Statement (NIS) that has been prepared in support of the current application.

The NIS concludes as follows:

'Where the potential for any adverse effect on any European Site has been identified, the pathway by which any such effect may occur has been robustly blocked through the use of avoidance, appropriate design and mitigation measures as set out within this report and its appendices. The measures ensure that the construction and operation of the Proposed Project does not adversely affect the integrity of European sites.

Therefore, it can be objectively concluded that the Proposed Project, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site'

6.5.2 Impacts on Nationally Designated Sites

Impacts on nationally designated sites including NHAs and pNHAs are considered in this section of the report. A pathway for effect on the Galway Bay Complex pNHA via surface water contamination has been established. However, following the implementation of the mitigation measures above, there will be no significant effects on Nationally Designated sites

7. CUMULATIVE IMPACT ASSESSMENT

A search and review in relation to plans and projects that may have the potential to result in cumulative and/or in-combination impacts on Biodiversity was conducted. This assessment focuses on the potential for cumulative in-combination effects on the European Sites where potential for adverse effects was identified in Section 4 of this report. This included a review of online Planning Registers, development plans and other available information and served to identify past and future plans and projects, their activities and their predicted environmental effects. The plans and projects considered are discussed below.

7.1 Plans

The following development plans have been reviewed and taken into consideration as part of this assessment:

- Ireland's 4th National Biodiversity Action Plan 2023-2030
- Northern and Western Regional Spatial and Economic Strategy 2020-2032
- Galway City Development Plan 2023-2029

The review focused on policies and objectives that relate to Biodiversity and natural heritage. Policies and objectives relating to sustainable land use were also reviewed.

7.2 Other Projects

The potential for the proposed development, when considered on its own, to result in residual effects on the following receptors was identified.

- Scrub (WS1) and Immature Woodland (WS2)
- Local bird populations
- Bats

Taking account of the above, projects where a source – pathway – receptor chain for significant cumulative effect were identified and an assessment was made on the potential for cumulative effects to occur when considered in combination with the proposed development. This assessment involved a search of relevant online Planning Registers, reviews of relevant documents, planning application details and planning drawings, and served to identify past and future projects, their activities, and their environmental impacts. Projects where no complete source-pathway-receptor chain was identified or where no potential for significant cumulative effects was identified on the basis of nature, scale and location, were excluded from the assessment. The projects considered include those listed below.

- **Planning Ref. 2125**: Permission for development which will consist of (a) Ground floor extension to rear of existing dwelling house. (b) Proposed new ground floor window on side

elevation. (c) Proposed conversion of existing garage for habitable use with new window for existing garage door.

- **Planning Ref. 2460017**: Permission for development which consists of the demolition of the existing dwelling and construction of a new dwelling house and garden store, alterations to the entrance gate, driveway and boundary wall and other ancillary site development and associated works.
- **Planning Ref. 2391**: Permission for development which consists of to construct a single storey side extension to existing dwelling.
- **Planning Ref. 21333**: Permission for development which will consist of construction of first floor extensions to side and rear of existing dwelling house and modification of rear elevation.
- **Planning Ref. 21233**: Permission for development which consists of a) Demolition of existing basement structures on site and associated infilling. b) Construction of 7 no. residential units consisting of: 6 no. 3 storey 4-bed units and 1 no. 2 storey 3-bed unit. c) New vehicular and pedestrian entrances onto Bóthar Stiofáin, and new pedestrian entrance onto Cloch Ard. d) Boundary treatments; and e) Provision of all associated surface water and foul drainage services and connections ancillary to the residential development, and all associated site works.
- **Planning Ref. 2381**: Permission for development which consists of the demolition of existing house and construct a single two-storey dwelling and a detached gym at the rear of the site.
- **Planning Ref. 22120**: Permission for development which will consist of the subdivision of a family site to construct a dwelling house and a detached garage with all associated site services.
- **Planning Ref. 20347**: Permission for development which will consist of the demolition of a substandard dwelling and the construction of a replacement two storey, three bedroom dwelling and all associated site works including an improved vehicular entrance.
- **Planning Ref. 23191**: Permission for development which consists of (1) The provision of a 2nd Storey extension to the side elevation of the existing dwelling.
- **Planning Ref. 2460292**: Permission for development which consists of the demolition of the existing dwelling and construction of a new dwelling house and garden store, alterations to the entrance gate, driveway and boundary wall and other ancillary site development and associated works.
- **Planning Ref. 2460033**: Permission for development which consists of to carry out works to house. These works will include the increase in ridge height of existing house, along with additional accommodation at first floor, changes to elevations, construction of porch and the installation of Solar Panels.
- **Planning Ref. 19251**: Planning Permission for the development which will consist of the construction of a part single storey, part two storey mixed use development totalling 2,694sqm gross floor space, including: a Licensed Discount Foodstore Supermarket with ancillary off-licence sales measuring 2,154 sqm gross (net retail sales area of 1,377sqm), a Café/Restaurant measuring 197sqm, a Barbers measuring 80 sqm, a Nail Bar measuring 20 sqm, a physiotherapy clinic measuring 56 sqm, and associated communal areas measuring 187 sqm; and, the provision of associated car parking, freestanding and building mounted signage, freestanding trolley bay and enclosure, refrigeration and air conditioning plant and equipment, roof mounted solar panels, public lighting, hard and soft landscaping, cycle parking, boundary treatments, vehicular and pedestrian accesses, drainage infrastructure and connections to services/utilities, and all other associated and ancillary development and works above and below ground level.
- **Planning Ref. 22257**: Permission for development which consists of (a) Retention for the raised boundary walls along the Clybaun Road and Clybaun Court boundaries of the property. (b) for the following works to existing house and site 1. Construction of a 1.80m high wall/fence along the north boundary. 2. Construction of a two-storey rear extension. 3. Conversion of the attic to habitable space. 4. Construction of a domestic shed/store. 5. Construction of 1.80m high screen walls/fences within the site boundaries. 6. All associated internal changes and external elevational changes to the existing house. 7. All associated building works and site works.
- **Planning Ref. 20193**: Permission is sought for the development which will consist of 2 new windows and enlargement of an existing window.

- **Planning Ref. 2560011**: Permission for a development which consists of alterations and additions to the existing dwelling, including the construction of a side and rear extension and other ancillary site development and associated works.
- **Planning Ref. 2460370**: Permission for development which consists of the development of a swimming pool and sports facility accessed from Altán Road and Millers Lane, including: competition standard pool, changing rooms, gymnasium, plant rooms, mezzanine level court and offices, basement plant, coffee dock, pedestrian and vehicular access, lighting, landscaping, parking, substation, solar PV and all associated site works. A Natura Impact Statement (NIS) has been prepared.
- **Planning Ref. 2360082**: Permission for development which consists of the construction of a single storey stand-alone building with a GFA of 471 sq.m, to include 2 no. café/restaurant units with ancillary takeaway use, signage, roof plant, landscaping, outdoor seating, waste storage and all associated works. Supersedes Reg. Ref.: 19/164.
- **Planning Ref. 20252**: Permission for development following alteration to existing unit which will consist of: single storey glazed entrance lobby extension, new side doors and canopy, rear canopy extension, service flues, and new signage.
- **Planning Ref. 2360190**: Permission for development which consists of the demolition of existing ground floor utility room and construction of new two storey extensions to the side and rear of existing dwelling with alterations to existing elevations and associated site works.
- **Planning Ref. 2460175**: Permission for development which consists of the demolition of a substandard existing dwelling and the construction of a replacement two storey dwelling and all associated site works.
- **Planning Ref. 23186**: Permission for development which consists of new high and low level fascia signage with Specsavers corporate signage, illuminated pod, individual lettering, and window manifestation.
- **Planning Ref. 2560116**: Permission for development which consists of: installation of roof mounted solar PV panel array, covering an area of 646SQM, located within a solar safeguarding zone (SSZ).
- **Planning Ref. 2560044**: Permission for development which consists of: rear extension to ground floor, internal alterations, elevation changes and retention of existing rear garage.
- **Planning Ref. 21351**: Permission for development which will consist of (a) Change of use of 226.7sqm from amenity use to bulk retail, (b) Enclosure of entrance lobby under canopy, (c) Minor elevation revisions. To connect to services under Pl. Ref 362/99.
- **Planning Ref. 2560062**: Permission for development which consists of internal change of use of toilets to office use with 2 new windows in facade, and all associated services and works at The Clybaun Hotel.
- **Planning Ref. 21113**: Permission and Retention for development which consists of: 1. Remove canopy/2 no. bay windows to front, 2. Construct porch extension and bay window to study, 3. Retain bay window and window alterations at rear and side elevations.
- **Planning Ref. 2560144**: Permission for development which consists of: demolition of existing garage, side and rear extension, new garage, and all associated works.
- **Planning Ref. 21130**: Permission for development which will consist of a new exit-only automatic double doors and glazed single-storey 16.8 sq.m lobby to front elevation and associated site works.
- **Planning Ref. 20180**: Permission is being sought to erect a two storey dwelling house and all associated services.
- **Planning Ref. 21392**: Permission for development which will consist of permission for a material change of use from Beauty Salon to GP Surgery and associated works.
- **Planning Ref. 2370**: Permission for development which consists of the demolition of existing conservatory and construction of new single storey extension to rear with alterations to front and side elevations and associated site works.
- **Planning Ref. 2360068**: Permission for development which consists of signage works at B&Q premises, including new and replacement illuminated and non-illuminated signage.

- **Planning Ref. 22122**: Permission for development which will consist of modifications to a previously approved dwelling (Pl. Ref. 20/347) including floor area increase, elevation changes and site works.
- **Planning Ref. 2560028**: Permission for development which consists of replacement of existing substandard roof with a new roof and all associated site works and services.
- **Planning Ref. 23103**: Permission for development which consists of new front elevation to porch, new side window, and minor alterations to existing front elevation window design, plus new apex roof light.
- **Planning Ref. 2148**: Permission for development which consists of the conversion of domestic garage to bedroom and extend same to front of building.
- **Planning Ref. 2460021**: Permission for development which consists of 3 no. offices blocks (GFA: 14,650 sqm) and all associated site development works as follows:
- Block 1: 8-storey office building providing offices, stair and lift cores and plant rooms (GFA: 7,330 sqm).
- Block 2: 6-storey office building providing offices, stair and lift cores and plant rooms (GFA: 4,445 sqm).
- Block 3: 4-storey office building providing offices, stair and lift cores and plant rooms (GFA: 2,875 sqm).
- The development includes a surface car park which comprises of 167 no. car parking spaces (including 9 no. accessible spaces and 33 no. EV charging spaces), and 216 no. bicycle parking spaces (including 22 no. electric bicycle charging spaces) and 9 no. motorbike spaces.
- Provision of new vehicular access to site.
- Provision of bin stores, ESB substation, roof-mounted solar PV, landscaping, boundary treatments, staff changing facilities, public lighting and all other site development works and services ancillary to the proposed development.
- A Natura Impact Assessment (NIS) will be submitted to the planning authority with the planning application.
- **Planning Ref. 21248**: Permission for development which will consist of the construction of a one-and-a-half storey extension/granny flat to the side elevation of the existing dwelling house.
- **Planning Ref. 22298**: Permission for development which consists of an extension and alterations to existing dwelling to include:
  a) Construction of 2nd floor extension over existing single-storey side extension and all revisions and elevations.
  b) Construction of new front entrance porch.
  c) Construction of new window on LHS gable at ground floor.
  d) Demolition of existing rear garden shed and construction of new shed/games room.
  e) All ancillary site works and site services.
- **Planning Ref. 2360113**: Permission for development which consists of the change of use of Block A, Galway West Business Park, Knocknacarra, Galway, from specialist office use to use as an Enhanced Community Care Hub (ECC) and Primary Care Centre (PCC) (Knocknacarra & Salthill). The ECC and PCC Hub will be comprised of:
- Ground Floor: Clinical assessment, examination and treatment for ECC including an Integrated Care Programme, diagnostic facilities, entrance/reception/waiting areas and ancillary functions.
- First Floor: Primary Care assessment, examination and treatment for two primary care teams, education rooms and ancillary functions.
- Second Floor: Combined clinical admin supporting ECC and Primary Care functions, staff change/rest areas, multi-disciplinary meeting rooms and ancillary functions.
- The proposed development includes:
- Reconfiguration of existing car parking to provide 80 no. public car parking spaces (3 accessible), and 62 no. staff spaces (4 accessible).
- New vehicle drop-off zone, paved forecourt, and one-way road system.
- 20 no. public bicycle parking stands and a bike shed for 60 no. staff bicycle parking spaces.

- New mechanical plant, relocation of the main entrance including a single-storey entrance lobby (GFA 16 sqm), external landscaping, alterations to building fenestration, roof-mounted solar PV panels, and all associated works.
- **Planning Ref. 2460179**: Permission for development which consists of installing 2 roof lights to the front and 3 to the rear of the dwelling house, and also the installation of solar panels.
- **Planning Ref. 2360152**: Permission for development which consists of the construction of new two-storey extensions to the side plus single-storey extension to the rear of existing dwelling, with alterations to existing elevations and associated site works.
- **Planning Ref. 2360172**: Permission for development which consists of erecting a dwelling house and all associated services. Gross floor area of proposed works: 149 sqm (Dwelling house).
- **Planning Ref. 22279**: Permission for development which consists of:
  (a) Retention of roof lights on rear elevation and window on side elevation.
  (b) Single-storey extension to side and rear of existing dwelling house with revisions to door and window openings on rear elevation and associated services.
- **Planning Ref. 2460165**: Permission for development which consists of the construction of a new and relocated entrance with canopy, and a terrace with planter beds to the front of the existing dwelling, including all associated development works.
- **Planning Ref. 2460197**: Permission for development which consists of installing a roof light to the front of the dwelling house and the installation of solar panels.
- **Planning Ref. 21262**: Permission for development which will consist of the construction of 2 No. two-storey semi-detached four-bedroom dwelling houses and all associated external site works.
- **Planning Ref. 2164**: Permission for residential development which will consist of 4 number terraced houses (2-storey plus attic accommodation), open space, landscaping, car parking and all associated site works and services.
- **Planning Ref. 2460391**: Permission for development which consists of the construction of a new and relocated entrance with canopy, a new terrace to the front of the existing dwelling and a new one-storey extension to the rear, including all associated development works.
- **Planning Ref. 21386**: Permission for development which will consist of:
  (A) Demolition of existing bungalow and associated outbuildings.
  (B) Construction of a 3-storey apartment building, containing a total of 14 no. units: 4 no. 1-bedroom, 9 no. 2-bedroom, and 1 no. 3-bedroom apartments.
  (C) Provision of a new vehicular and pedestrian access point off the Rahoon Road.
  (D) Vehicular parking, secure covered bicycle parking, visitor bicycle parking, external communal bin storage.
  (E) Public realm landscaping and solar panels at roof level.
  (F) All other ancillary site-works and services.
- **Planning Ref. 20246**: Permission for development which will consist of alterations to the existing front elevation to include an extension to the front, new two-storey side extension, internal alterations and all ancillary site works.
- **Planning Ref. 18243**: Permission for refurbishment, renovation, minor internal alterations and two-storey side extensions to accommodate 4 No. 2-bedroom apartments and all associated car parking and site development works. The building is a protected structure (No. 8301).

The following projects are located within or adjacent to the site of the Proposed Development:

Planning Ref. 9926: Permission to erect a club house/dressing rooms

Planning Ref. 96238: Permission to erect a Club House/Dressing Rooms

Planning Ref. 93112: Permission for revised location of car parking at proposed football pitches

The following developments are proposed adjacent to the Kingston Park site:

Planning Ref. 2560320: Provision of 362 no. residential units in 4 no. development areas with a mix of apartment and house types on a site area of 5.37 ha. The buildings range between 2 no. and 6 no. storeys in height. The development will comprise the following:
4 no. 2-bed townhouses;
40 no. 3-bed townhouses;
21 no. 4-bed townhouses;
15 no. 1-bedroom duplex apartments;
46 no. 2-bedroon duplex apartments;
15 no. 2-bedroom duplex houses;
46 no. 3-bedroom duplex houses;
114 no. 1-bedroom apartments;
56 no. 2-bedroon apartments;
5 no. 3-bedroom apartments.

Demolition of existing structures (333.8 m2);
Vehicular access to the proposed development from a permitted road (Planning Reference 24/60370 refers);

The provision of new active travel cycle and pedestrian access from Millers Lane;
Upgrades to the existing access at Kingston Road
The provision of a childcare facility (440 m2);
The provision of public open space;
The provision of 665 no. bicycle parking spaces;
The provision of 313 no. car parking spaces;
Public lighting, bin stores, signage, services, ESB substation, site landscaping and all ancillary site development and enabling works.

Planning Ref. 24/50370: Forbairt Snámh Thiar Cuideachta Faoi Theorainn Ráthaíochta, intend to apply to Permission for development which consists of; Galway City Council for permission for the development of a swimming pool and sports facility at a 0.87ha site accessed from Altán Road and Millers Lane, in the townlands of Rahoon, Knocknacarra, Galway. The proposed development will consist of the construction of a prefabricated aluminium frame and fabric tensile envelope with independently constructed facilities building within the envelope and will include the following: 1. Provision of a 35 x 25m competition standard swimming pool with adjustable floor (max depth 2m); 2. Ground floor changing rooms 'wet village' including steam room, sauna and first aid (425 sq.m.), pool deck and spectator area (476 sq.m), reception and staff offices (57 sq.m.), gymnasium (576 sq.m), storage areas and plant spaces (52 sq.m.); 3. Provision of ancillary spaces on the mezzanine floor including multifunctional sports court (760sq. m), gymnasium (92 sq.m), staff offices (54 sq.m.); bathroom facilities and plant spaces (389 sq.m.); 4. Provision of plant area at basement level (495 sq.m.); 5. Provision of a coffee dock at ground floor level (85 sq. m.); 6. The provision of new vehicular and pedestrian access from Altán Road along with the provision of upgraded cycle and pedestrian infrastructure along Altán Road; 7. The provision of new active travel cycle and pedestrian access from Millers Lane; 8. Provision of site landscaping, wall mounted signage, public lighting, bike parking (89 no. Spaces), car parking (75 no. Spaces), bus parking (2 no. Spaces), 1 no. ESB Substation, 1 no. LV Switch room, ground mounted solar PV (250 sq. m) and all associated site development and site enabling works.

The dominant land uses in the area were also considered in the assessment, these included residential and commercial uses.

7.3 Conclusion of Cumulative Assessment

Following the detailed assessment provided in the preceding sections, it is concluded that, the proposed development will not result in any significant residual effects on biodiversity, when considered on its own. Following the review of the above plans and projects, it is concluded that there is no potential for it to contribute to any significant cumulative effects on Biodiversity when considered in-combination with other plans and projects.

8. COMPLIANCE WITH DEVELOPMENT PLANS

A review of the 4th National Biodiversity Action Plan, the Northern and Western Regional Assembly Regional Spatial and Economic Strategy and Galway City Development Plan was undertaken with a focus on Policies and Objectives specific to biodiversity and natural heritage. The relevant Policies and Objectives are listed in the Table below. An assessment of compliance with the Development Plans is provided in the Table below.

Table 8-1 Compliance with Plans

Plan	Key Policies/Issues/Objectives Directly Related to European Sites in The Zone of Influence	Assessment of development compliance with policy
Ireland's 4th National Biodiversity Action Plan 2023-2030	**Objective 2:** Meet urgent conservation and restoration needs **Outcome 2A:** The protection of existing designated areas and species is strengthened and conservation and restoration within the existing protected are network are enhanced **Outcome 2B:** Biodiversity and ecosystem services in the wider countryside are conserved and restored – agriculture & forestry **Outcome 2C:** Biodiversity and ecosystem services in the wider countryside are conserved and restored – peatlands & climate action **Outcome 2D:** Biodiversity and ecosystem services in the marine and freshwater environment are conserved and restored	The Biodiversity Action Plan was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the Natura 2000 network and other natural heritage interests. The Proposed Development will not result in any significant effects on the conservation objectives of any designated sites, will not negatively impact on the ecological network of the local area and has appropriate environmental assessments done for it. The Proposed Development is in compliance with the objectives outlined within the Biodiversity Action Plan.
Northern and Western Regional Assembly Regional Spatial and Economic Strategy 2020-2032	**Regional Policy Objective (RPO) 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. **RPO 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	The Spatial and Economic Strategy was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the biodiversity, protected species, designated sites and other natural heritage interests.

	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. **RPO 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.	The Proposed Development will not result in any significant effects on the conservation objectives of any designated sites, will not negatively impact on the ecological network of the local area and has appropriate environmental assessments done for it. The Proposed Development is in compliance with the objectives of this development plan.
Galway City Development Plan 2023-2029	**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	The Development Plan was comprehensively reviewed, with particular reference to Policies and Objectives that relate to the biodiversity, protected species, designated sites and other natural heritage interests. The Proposed Development will not result in any significant effects on the conservation objectives of any designated sites, will not negatively impact on the ecological network of the local area and has appropriate environmental assessments done for it. The Proposed Development is in compliance with the objectives of this development plan.

	and undertake all compensatory measures necessary to ensure the protection of the overall coherence of Natura 2000. **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. **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. **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. **Policy 5.3 Blue Spaces: Coast, Canals and Waterways** **1.** Protect and maintain the integrity of the coastal environment and waterways by avoiding significant impacts and meeting the requirements of statutory bodies, national and European legislation and standards. **2.** Conserve and protect natural conservation areas within the coastal area and along waterways and ensure that the range and quality of associated habitats and the range and populations of species are maintained.	

9. CONCLUSION

A comprehensive assessment of the potential significant effects on biodiversity has been undertaken. Mitigation has been prescribed where necessary and the residual effects have been assessed. Following the implementation of best practice and mitigation, there will be no residual impacts on biodiversity at any geographical scale.

The potential residual impacts on ecological receptors will not be significant and no potential for the Proposed Development to contribute to any cumulative impacts on biodiversity when considered in combination with other plans and projects was identified.

In conclusion, provided that the Proposed Development is constructed and operated in accordance with the design described within this application, there will be no significant effects on biodiversity, protected sites or other natural heritage interests at any geographic scale.

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