PROPOSED LARGE-SCALE RESIDENTIAL DEVELOPMENT ON LANDS AT SOUTHGREEN, CO. KILDARE

Biodiversity Management Plan

Pousterle Limited

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Customer:	Pousterle Limited,	Tel: 01 565 4730
Customer contact:	Patrick Leavy	
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Prepared by:	Verified by:	Approved by:
Ciara Barry-Hannon Senior Ecologist	William McCauley Ecologist	Shea O'Driscoll Principal Ecologist

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1 INTRODUCTION

DNV was commissioned by Brock McClure on behalf of Pousterle Limited to prepare a Biodiversity Management Plan (BMP) to accompany a planning application for a proposed large-scale residential development, entitled 'Southgreen LRD' on lands at Southgreen, Co. Kildare, hereafter referred to as 'Proposed Development' or 'Site,' when referring to the application Site area. The Development forms Phase 2 of a larger masterplan for the Site.

The Biodiversity Management Plan brings together the ecological baseline and impact assessment undertaken by DNV with the full Landscape Design Package, including the design rationale, plans, sections, detailed drawings, and the combined services plan covering SuDS and tree coordination. It also incorporates detailed landscape specifications such as bio-retention tree pits, swales, above ground attenuation basins, and hedgerows.

This integrated Plan aligns with key national and local policy frameworks, including the Kildare County Development Plan 2023–2029, Kildare Climate Action Plan 2024–2029, the National Biodiversity Action Plan 2023–2030, the All-Ireland Pollinator Plan 2021–2025, and the draft KCC Biodiversity Action Plan 2026–2031.

1.1 Quality Assurance and Competence

All surveying and reporting have been carried out by qualified and experienced ecologists and environmental consultants. CBH, Senior Ecologist with DNV authored this report, in addition to completing both the desktop and field studies that pertain to this report. CBH has a BSc. (Hons) in Wildlife Biology from Munster Technological University (formerly ITT). CBH has a wealth of experience in desktop research, literature review and reporting, as well as practical field and laboratory experience including experience in surveying habitats, plants, bats, birds, mammals, and invasive species. CBH is experienced in the production of Preliminary Ecological Appraisals (PEAs), EcIA, and Stage I/Stage II Appropriate Assessment (AA) Reports, as-well as ornithology reports for renewable energy projects (wind and solar technology). Additionally, CBH has completed, and supported the preparations of several Biodiversity Chapters for Environmental Impact Assessment Reports (EIAR). CBH is also an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.2 Relevant Legislation and Policy Context

Global/International, national, and local plans and policies considered in this report are listed below.

International / European Policy and Legislation:

- EU Birds Directive
- EU Habitats Directive
- Water Framework Directive (2000/60/EC)
- Ramsar Convention on Wetlands (1971)
- Bern Convention on the Conservation of European Wildlife and Natural Habitats (1982)
- Bonn Convention on the Conservation of Migratory Species (1979)
- United Nations Convention on Biological Diversity (CBD) (1992)

National (Ireland) Legislation and Plans:

- Wildlife Act 1976 and Wildlife (Amendment) Act 2000
- Flora (Protection) Order 2022

- European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)
- Invasive Alien Species legislation (under S.I. No. 477 of 2011, as amended)
- National Biodiversity Action Plan 2023–2030
- All-Ireland Pollinator Plan 2021–2025

Regional / Local Plans and Policies (Kildare):

- Kildare County Development Plan (KCDP) 2023–2029
- Kildare Biodiversity Action Plan 2009–2014
- Draft Kildare Biodiversity Action Plan 2026–2031

Further details on legislation and policy listed above that are relevant to the Proposed Development are detailed in Appendices 9.1-9.3 below.

2 BACKGROUND AND AIMS/OBJECTIVES OF THE BIODIVERSITY MANAGEMENT PLAN

2.1 Background

A Biodiversity Management Plan (BMP) is a targeted, site-specific framework that sets out clear, actionable measures to protect, enhance, and actively manage biodiversity throughout the lifecycle of a development. It moves beyond baseline assessment to define how ecological value will be sustained and improved over time through structured management, monitoring, and adaptive intervention.

This BMP establishes:

1. A robust baseline of existing ecological receptors, informed by detailed survey data
2. Clear commitments for the protection, retention, and enhancement of key habitats and ecological features
3. The integration of biodiversity-led design principles, including habitat creation through landscaping and SuDS
4. A structured management, maintenance, and monitoring programme with defined objectives and performance outcomes
5. Demonstrable alignment with relevant national, regional, and local biodiversity policy and best practice

A strong emphasis is placed on landscape-led biodiversity delivery, ensuring that all green infrastructure contributes meaningfully to ecological function, connectivity, and resilience. Through ongoing monitoring and adaptive management, the BMP ensures that biodiversity gains are not only achieved but sustained and enhanced in the long term.

Long-term ecological benefits are the sustained positive outcomes for habitats, species, and ecosystem function that arise over time as a result of good design, protection, and ongoing management. Rather than short-term or one-off improvements, these benefits focus on creating resilient, self-supporting ecological systems that continue to improve and adapt into the future.

Crucially, these benefits are achieved through ongoing management, monitoring, and adaptive measures, ensuring that biodiversity gains are maintained and strengthened well beyond the initial implementation phase.

2.2 Aims and Objectives

The key aims and objectives of this BMP are as follows:

- To maintain and strengthen ecological connectivity, enhancing biodiversity within the Site
- To deliver a diverse range of habitats to support a variety of wildlife including the provision of pollinator-friendly habitats
- To ensure long-term sustainable management that provides a realistic, low-maintenance strategy for this Residential Development
- To ensure the effective replacement and enhancement of hedgerow habitat and green infrastructure within the Site
- To provide clear, practical and deliverable measures that demonstrate how biodiversity will be incorporated into and maintained within the Proposed Development

3 DESCRIPTION OF THE PROPOSED DEVELOPMENT

3.1 Site Location

The Proposed Development Site is located on lands at Southgreen, Co. Kildare. The general surroundings of the Site are a mixture of residential and agricultural in nature, with the residential surrounds encompassing areas to the west, south, and east of the Site, and agricultural areas extending north of the Site and into the wider area. The Site itself is bound by Southgreen Road to the west, and local road L7016 (Old Road) to the east and south. The lands, which are currently in agricultural use, slope generally from west to east. The Site is located less than 1km from Kildare Town centre. Kildare Town Community School and Kildare Cemetery are located less than 300m to the east of the Proposed Development Site. Kildare ESB substation is located immediately south/southwest, bordering the Site. See Figure 1 below for Site Location, and Figure 2 showing phase 1 (ongoing) and phase 2 (the Proposed Development).

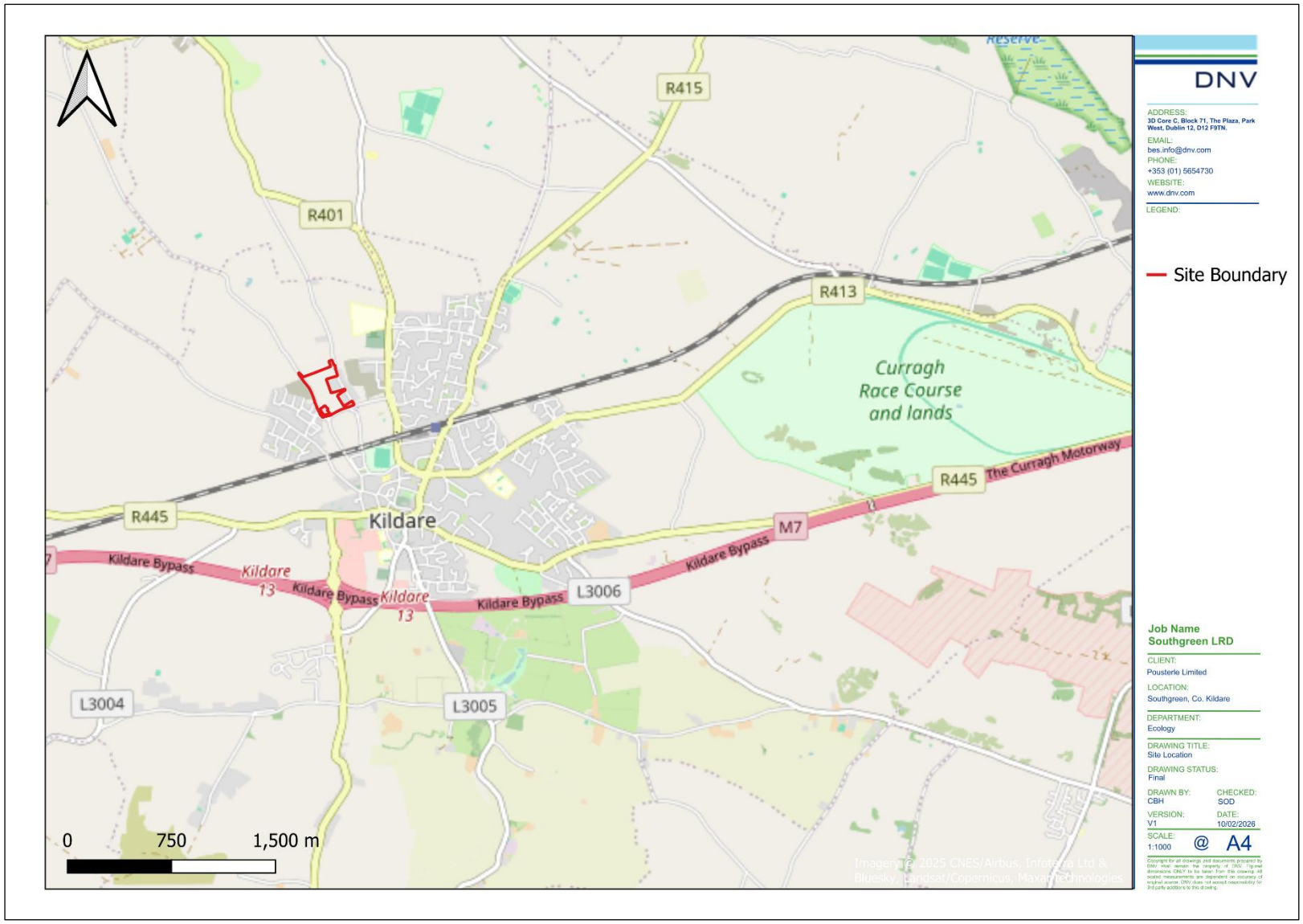


FIGURE 1. SITE LOCATION.



FIGURE 2. SHOWING PHASE 1 AND CURRENT RED LINE BOUNDARY FOR PHASE 2 (WATERMAN MOYLAN, 2026).

3.2 Proposed Development Description

Pousterle Limited intend to apply for permission for development of a Large - Scale Residential Development (LRD) on a site of approx. 6.13 ha at Southgreen Road, Kildare, Co. Kildare. The site is generally bounded to the north by agricultural fields; to the south by the recently constructed Southern Internal Link Road; to the west by Southgreen Road and an existing Electricity Station; and to the east by Old Road and existing residential properties. The proposed development will consist of:

- The construction of a new residential scheme of 146 no. residential units ranging in height from 1-3 storeys as follows:
    - 136 no. houses (7 no. 2 bed units; 102 no. 3 bed units; and 27 no. 4 bed units) in a mixture of bungalow, detached, semi-detached, and terrace style units ranging in height from 1 – 2 storeys.
    - 10 no. duplex apartment units (5 no. 1 beds, 3 no. 2 beds, and 2 no. 3 beds) in new Block A ranging in height from 2-3 storeys
- Each residential unit will be afforded with private open space in the form of a front/rear/side garden for houses or terrace / balconies for duplex apartment units.
- The provision of a new creche facility (approx. 161 sq m GFA) and associated areas of external open space (approx. 60 sq m) located at Block A.
- Public open space (approx. 6,992 sq m) is proposed in the form of 2 no. new large public open space areas within the site (approx. 3,046 sq m and 3,946 sq m respectively).
- Communal open space (approx. 82 sq m) is proposed adjacent to Block A.
- A total of 321 no. car parking spaces (305 no. for residential units and 16 no. for the creche facility) are provided. This provision includes 2 no. accessible spaces and 17 no. visitor spaces.
- A total of 527 no. cycle parking spaces (517 no. for residential units and 10 no. for the creche facility) are provided. This provision includes 75 no. visitor spaces. Resident cycle parking is proposed in the form of secure bicycle store enclosures to the front of terraced units; on curtilage spaces to the rear of units with side access; and a bicycle store for apartment units located within Block A. Visitor parking is proposed in the form of Sheffield stands.
- The development shall be served via 2 no. new vehicular access points from Southgreen Road. An additional private vehicular access point is proposed via Old Road to service 1 no. new bungalow (4 no. bed residential unit). Provision is also made for future vehicular access via Southgreen Road to serve the open space and amenity zoned lands to the north of the main development site.
- Pedestrian and Cyclist access is also proposed via Southgreen Road and via a new secondary access point from the Southern Internal Link Road to the south of the site and Old Road to the east of the site.
- Upgrades/widening to Southgreen Road including the provision of 2 no. directional single lane cycle tracks and pedestrian footpaths on either side of the Southgreen Road, together with amendments to the existing cycle tracks and footpaths on Southgreen Road north of Southern Internal Link Road are proposed.
- A new pedestrian/cycle link is also delivered to the north of the main development site connecting South Green Road to Old Road.
- The associated site and infrastructural works include provision for an ESB Sub Station; water services; foul and surface water drainage and connections; attenuation proposals; permeable paving; all landscaping works; boundary treatment; PV/Solar Panels; internal roads and footpaths; waste storage areas, all electrical services and all associated site development works.

See Figure 3 and Figure 4 for Site Layout and Phase information.



FIGURE 3: SITE LAYOUT (MCORM ARCHITECTURE & URBAN DESIGN, 2026)

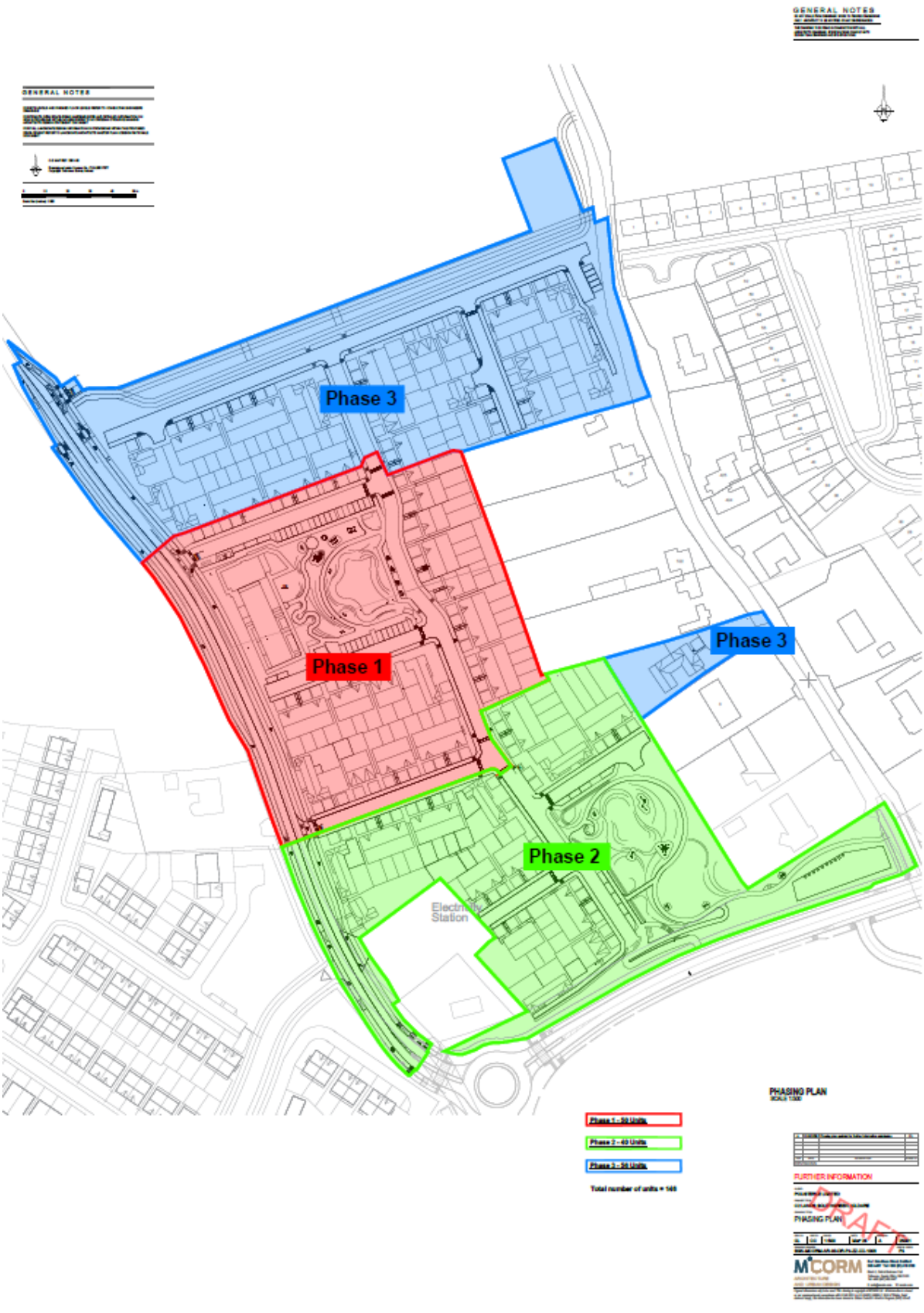


FIGURE 4: SITE PHASES (MCORM ARCHITECTURE & URBAN DESIGN, 2026).

3.2.1 Landscape Plan

The landscape plan (Hayes Ryan Landscape Architects, 2026) delivers a rich network of habitats designed to support biodiversity through the retention and enhancement of existing hedgerows, extensive native mixed-species planting, and the creation of species-rich grasslands and wildflower meadows that provide nectar, pollen, and seed resources for pollinators and birds (Figure 5). A variety of tree types, ranging from fastigiate feature trees to clustered light-foliage species, introduce structural diversity, offering shelter, nesting opportunities, and foraging resources for birds and small mammals.

Native buffer planting along boundaries and embankments forms continuous green corridors that facilitate safe movement of wildlife across the site, while dense shrub and whip planting creates cover and refuge for terrestrial mammals. The inclusion of open and closed spaces, naturalised planting pockets, and gently contoured grass areas further enhances habitat heterogeneity. The detention basin and associated wetland margins in the southeastern open space add valuable aquatic and damp-ground habitat, supporting invertebrates, amphibians, and drinking/foraging opportunities for a wide range of bird and mammal species, including bats.

Collectively, these elements create an interconnected mosaic of high-value habitats that strengthen the site's ecological functioning and promote overall biodiversity. Key features of the landscape plan include:

- Retention and protection of majority of existing hedgerows/trees
- Extensive native mixed hedgerow planting
- Native buffer and whip planting
- Species rich wildflower meadows and biodiverse grasslands
- Diverse native tree planting
- Integrated SuDS features, including a pond-like detention basin to southeast
- Mixed habitat mosaic (open and closed)
- Green corridors integrated into circulation routes, maintaining a N-S and E-W connectivity for fauna
- Pollinator friendly groundcover and shrub planting



FIGURE 5. LANDSCAPE MASTERPLAN (HAYES RYAN LANDSCAPE ARCHITECTS, 2026).

3.3 Description of the Construction Phase

The construction phase will involve a coordinated 18-month programme beginning with site establishment, including condition surveys, installation of hoarding, and setup of a secure compound with welfare facilities. Works will proceed under controlled access via designated routes from the M7, with deliveries scheduled to avoid peak hours and managed by traffic marshals to minimise local disruption. Standard working hours will apply, with strict measures to control noise, dust, vibration, sediment, and pollution in line with best practice (BS 5228) and Kildare County Council requirements.

Surface water will be managed through temporary drainage, silt control systems, and settlement areas until permanent SuDS infrastructure is in place. Soil stripping and excavation will be staged and monitored to reduce erosion, while waste will be minimised through reuse and recycling in compliance with statutory legislation. Environmental safeguards, including wheel washing, dust suppression, careful material storage, and spill-response measures, will ensure construction impacts are contained within the site. Overall, the plan prioritises safety, environmental protection, and minimal disturbance to surrounding residents throughout the duration of the works.

The proposed working hours for the development at Southgreen, Kildare are set out below:

- Monday - Friday 08:00-18:00
- Saturday 08:00-14:00

3.4 Description of the Operational Phase

The Proposed Development will comprise a residential amenity consistent with the neighbouring land use in the area. Operational Phase drainage and foul water details are provided above.

4 BASELINE ECOLOGICAL CONDITIONS

4.1 Methodology

4.1.1 Desk Study

A desktop study was carried out to collate and review available information, datasets and documentation sources pertaining to the Site's natural environment. The desk study, completed in on 29/07/2025, relied on the following sources:

- Information on species records[1] and distributions, obtained from the National Biodiversity Data Centre (NBDC) at *maps.biodiversityireland.ie*;
- Information on waterbodies, catchment areas and hydrological connections obtained from the Environmental Protection Agency (EPA) at *gis.epa.ie*;
- Information on bedrock, groundwater, aquifers and their statuses, obtained from Geological Survey Ireland (GSI) at *www.gsi.ie*;
- Information on the network designated conservation sites, site boundaries, qualifying interests and conservation objectives, obtained from the National Parks and Wildlife Service (NPWS) at *www.npws.ie*;
- Satellite imagery and mapping obtained from various sources and dates including Google, Digital Globe, Bing and Ordnance Survey Ireland;
- Information on the existence of permitted development, or developments awaiting decision, in the vicinity of the Proposed Development from the National Planning Application Database available at: *https://housinggovie.maps.arcgis.com/apps/webappviewer/index.html?id=9cf2a09799d74d8e9316a3d3a4d3a8de; and*
- Information on the extent, nature and location of the Proposed Development, provided by the applicant and/or their design team.

A comprehensive list of all the specific documents and information sources consulted in the completion of this report is provided in Section 8, References.

4.1.2 Field Surveys

To determine the likely ecological constraints at the Site, a multidisciplinary walkover survey was carried out on the 30th of May 2025. This survey covered the following aspects:

- Habitat mapping to level 3 (Fossitt 2000);
- Preliminary Bat Roost Assessment and Habitat Suitability Survey;
- Bird Scoping Survey ;
- Invasive Flora Survey; and
- A search for signs of protected fauna (e.g., mammals, reptiles, amphibians).

Details of the survey methods are given in the below sections.

4.1.2.1 Habitat Surveys

Habitat surveys of the Site were conducted by DNV on the 30th of May 2025. Habitats were categorised according to the Heritage Council's '*A Guide to Habitats in Ireland*' (Fossitt, 2000) to level 3. The habitat mapping exercise

[1] The Site of the Proposed Development lies within the 10km grid square N71, the 10km grid square, N71G 2km grid square. Records from the last 20 years from available datasets are given in the relevant sections of this report.

had regard to the 'Best Practice Guidance for Habitat Survey and Mapping' (Smith *et al.*, 2010) published by the Heritage Council.

The habitats at the Site were also assessed for their potential to support protected and/or notable fauna.

4.1.2.2 Bat Surveys

Preliminary Bat Roost Assessment

A daytime inspection of the Site was undertaken on the 30th of May 2025. The aim of the inspection was to search for indication of the presence of roosting bats, and to assess the habitat for its ability to support commuting and foraging bats. Buildings and trees on Site were visually assessed from the ground with the aid of a torch and binoculars. The roost inspection comprised a detailed inspection of structures and trees on Site. These were subject to exterior and interior inspections (where possible) to search for evidence of bat use. This includes live and dead specimens, droppings, feeding remains, oil staining and noise (Collins 2023). Buildings were assessed for cracks and crevices, or entry points to the roof that might support roosting bats, while trees were searched for Potential Roosting Features (PRFs) such as hollow trunks, knot holes, peeling bark, splits, cracks, and crevices (Collins 2023; Andrews 2018). Collins (2023) recommends that structures and trees are assessed for their ability to support roosting bats under separate categorisations using professional judgement and sub-categories as presented in Table 4.1 (Collins, 2023):

- Negligible – No suitable features observed, however, a small element of uncertainty remain;
- Low – A structure with one or more roost features as used by individual bats opportunistically at any time of year;
- Moderate – A structure with one or more roost features that could be used by bats on a regular basis or by a larger number of bats; and
- High – A structure with one or more roost features that are obviously suitable for use by a larger number of bats on a regular basis, and potentially for longer periods of time. These features have the potential to support high conservation status roosts.

Trees are categorized separately accordingly to Table 4.2 of Collins (2023). These classifications are:

- NONE – Either no PRFs in the tree or highly unlikely to be any;
- FAR – Further assessment required to establish if PRFs are present in the tree; and
- PRF – A tree with at least one PRF present.

Where a tree contains at least one PRF, each PRF is further assessed according to Table 6.2 (Collins 2023). PRF's are scored as either:

- PRF-I – PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
- PRF-M – PRF is suitable for multiple bats and may therefore be used by a maternity colony.

For trees with PRF-I's only, no further surveys may be required, but appropriate compensation for all PRF-I's must be designed and incorporated in advance of impacts along with a Precautionary Working Method Statement (PWMS). As the Site increases in suitability for roosting bats e.g., PRF-M's present, the survey effort increases accordingly. A PRF-M will require a detailed inspection, such as aerial inspection, conducted over three survey visits, a minimum of three weeks apart, which should be carried out between May and September with at least two in the period May to August. Where features are inaccessible by ladder, climbing, or MEWP, or too extensive for a PRF inspection, the aerial inspection should be replaced with emergence surveys carried out between May and September with Night Vision Aids (NVA) where possible or otherwise surveyed using Advanced Licence Bat Survey Techniques (ALBST), such as trapping, tagging, and radio-tracking to inform of the importance of a roost.

Preliminary Bat Habitat Suitability Assessment Survey

A Bat Habitat Suitability Assessment was carried out in conjunction with the roost assessment on the 30th of May 2025. This assessment evaluated the habitats present on Site and in the wider area for bat foraging and commuting suitability. Habitat suitability is assessed qualitatively from Negligible to High:

- Negligible – No suitable foraging or commuting habitats on Site
- Low – Suitable but isolated habitats that could be used by small numbers of commuting and/or foraging bats, such as poorly connected gappy hedgerows, lone trees, unvegetated streams, etc.
- Moderate – Suitable continuous habitat connected to the wider landscape that could be used by commuting and/or foraging bats, such as treelines, scrub, grassland, water, etc.
- High – Continuous high-quality habitat that is well-connected to the wider landscape, and is likely used regularly by commuting and/or foraging bats, such as river valleys, broadleaved woodland, woodland edge, grazed parkland, etc.

Bat Landscape Suitability

The Bat Conservation Ireland Landscape Suitability Model (Lundy *et al*., 2011) provides a habitat suitability index for bat species across Ireland. The model divides the country into 1 km grid squares and ranks the habitat within the squares according to its suitability for various bat species. The scores are divided into five qualitative categories of suitability, namely:

- 0.0000000 - 13.000000: Low
- 13.000001 - 21.333300: Low – Medium
- 21.333301 - 28.111099: Medium
- 28.111100 - 36.444401: Medium – High
- 36.444402 - 58.555599: High

Bat Activity Transect Survey

The Site was assessed by an experienced ecologist in relation to the potential bat foraging habitat and commuting routes. The survey was undertaken to best practice guidance (Collins, 2023 and Marnell et al., 2022) during suitable weather conditions, as detailed below in Table 1. Transect surveys were undertaken on the same dates as the emergence surveys; commencing after or just before the end of the emergence surveys as per best practice guidance, which states that while surveyors should be on-Site at sunset, walking surveys should not commence until up to an hour after sunset (Collins, 2023).

TABLE 1 SURVEY EFFORT FOR DUSK ACTIVITY SURVEYS UNDERTAKEN AT THE SITE.

Survey no.	Date	Sunset Time	Start Time	Finish Time	Weather Conditions	Limitations
Transect Survey 1 of 1	14/07/2025	21:48	21:35	23:26	Start of survey: Drizzle, wind Beaufort F3, Cloud cover 4/4, visibility 4/4, temp 14ºC. End of survey: Drizzle progressed to constant rain at the end, wind Beaufort F3, Cloud cover 4/4, visibility 4/4, temp 13ºC.	Please refer to Section 4.1.3 below.

The transect route completed on the day is shown below in Figure 6.



FIGURE 6: BAT TRANSECT ACTIVITY SURVEY (ROUTE)[2].

[2] Please note the red line boundary used in the transect activity map at the time of completion, differs slightly to the final red line boundary of the site.

Data Analysis

Species were identified from recordings using Elekon's BatExplorer software (Version 2.1.10.1) and Kaleidoscope Pro software. Bat data was analysed, and species assigned to each record with reference to species identification guides such as Russ (2012).

Each record i.e., a sequence of bat calls/pulses, is noted as a bat pass; to indicate the level of bat activity for each species recorded. Each bat pass does not correlate to an individual bat but is representative of bat activity levels. Some bats such as Pipistrelle species may continuously fly around a habitat or feature, therefore, it is possible that a series of bat passes within a similar time frame is representative of an individual bat. On the other hand, Leisler's bats tend to travel through an area quickly, and as such, an individual sequence or bat pass is more likely to be indicative of individual bats.

4.1.2.3 Bird Scoping Survey

A bird scoping survey was carried out on the 30th of May 2025 to scope out the breeding and non-breeding bird potential at the Site based on habitats. Additionally, all bird species encountered during the survey were recorded and activity noted where possible.

The survey methodology employed was based on that recommended in standard literature used by for example the British Trust for Ornithology (BTO) (Gillings et al, 2007; Bibby et al, 1992 and Gilbert et al, 1998), which has subsequently been adapted into guidelines for ecological consultants by the Bird Survey & Assessment Steering Group (2022). During the surveys, the Site was walked slowly, approaching all habitats within and adjacent to the Proposed Development and scanning and listening for birds.

Two transects commencing on the morning of the survey were walked through the site to record all the species that were present. A final zig-zag walk through the site was done at the end of the survey to ensure no additional species were missed.

4.1.2.4 Fauna Survey

A general fauna survey of the Site was carried out in conjunction with the other field surveys on the 30th of May 2025. The habitat types recorded throughout the survey area were used to assist in identifying the fauna considered likely to utilise the area. The Site was searched for tracks and signs of mammals as per Bang and Dahlstrom (2001) and other fauna as per the National Road Authority (NRA, 2005; NRA.2009a).

Additionally, due to presence of historical records, a focused search for signs of the following fauna was carried out:

- Amphibians; and
- Hedgehog (*Erinaceus europaeus*).

4.1.2.5 Invasive Species Surveys

An invasive species surveys were carried out in conjunction with the habitat surveys on the 30th of May 2025. This included a detailed search for signs or any invasive flora or fauna, with any incidental observations of evidence for invasive species recorded whenever on Site.

4.1.3 Limitations

Every effort has been made to provide a comprehensive description of the site; however, the following specific limitations apply to this assessment:

- An extensive search of available datasets for records of rare and protected species within proximity of the Proposed Development has been undertaken as part of this assessment. However, the records from these datasets do not constitute a complete species list. The absence of species from these datasets does not necessarily confirm an absence of species in the area.
- While a faunal survey included searching for any sign of badger (*Meles meles*) including tracks, snuffle holes, latrines, and setts, it should be noted that vegetation cover was dense, given the time of year that the survey was carried out. However, the Site was still very accessible allowing for a thorough search, which found no evidence of Badger using the Site, meaning that this is not considered a significant limitation to this report.
- The bat transect activity survey was completed during the optimal survey period; however, drizzle was present for the duration of the survey, increasing to heavier rain at the end. This could impact on count data, leading to an underestimation of activity, as a result. However, this is not considered to pose a significant limitation to the survey results, particularly given the fact that activity was recorded along the linear habitat features, and mitigations for protection of same, where possible, are included in this report on a precautionary basis.

4.2 Results

This section sets out the baseline conditions for the ecological features within the Site using the findings of the desk study and field surveys.

4.2.1 Geology, Hydrogeology and Hydrology

The Site of the Proposed Development is within the Barrow Water Framework Directive (WFD) catchment (catchment ID 14) and the Barrow_SC_060 sub catchment (EPA, 2026). There are no waterbodies located within the Site. The nearest waterbody to the Site is the 1st order freshwater waterbody of Tully Steam (ID: IE_SE_14T020200) which lies 2.5km south of the Site and flows in a south-westerly direction. Following this, the next nearest waterbody to the Site is the Cloncumber Stream.

The Cloncumber Stream (ID: IE_SE_14C170200), a 1st order Stream is located approximately 5km northeast of the Site, at Pollardstown Fen, and flows north-westerly before meeting the 3rd order Slate River (ID: IE_SE_14S010210) which continues west/southwest, eventually flowing into the 5th order River Barrow. The Tully Stream, however, continues southwest where it also meets the 5th order River Barrow, before travelling southwards and eventually discharging into the Barrow, Suir, Nore Estuary (EU Code: IE_SE_100_0100) located some 100km south of the Site at its nearest point (EPA, 2026).

The Tully Stream has been assessed as 'Poor' status and is considered 'At Risk' of not meeting its Water Framework Directives (WFD, 2019-2024), while the Cloncumber Steam has been assessed as 'Moderate' status while its risk is currently 'At Risk' (EPA, 2026). The Tully Stream forms one of two waterbodies located within the Barrow_SC_60 sub-catchment which were assessed as being 'At Risk'. The WFD Cycle 2 Sub catchment assessment Report provides the following information for this sub-catchment:

"Similar to subcatchment 14_16, this subcatchment has wastewater treatment plants and several large areas of urbanisation on the outskirts of the greater Dublin area, including Kildare, Kildangan and Monasterevin. Agricultural land (both pastures and arable) is common throughout, with areas of peat bog also present, particularly at the lower end of the Tully Stream, but these practices were not identified by local authorities as significant pressures. There have been some wastewater treatment plant upgrades carried out in recent years, and more upgrades are ongoing or are planned in the near future. These upgrades have resulted in marked improvements to date in both chemistry and biology and similar improvements are expected following further proposed upgrades." (Catchments.ie, 2019)

The EPA water quality monitoring data for the stations on the aforementioned streams located closest to the Site are summarised in Table 3.

TABLE 2. EPA MONITORING STATIONS AND ASSIGNED Q VALUES

EPA Monitoring Station name	Station Code	Location from Site	Distance from Site	Assigned Q value (2019-2024)
Tully Stream (Bridge near Tully House)	RS14T020100	South	2.5km	3 "Poor"
Cloncumber Stream (Bridge at Whelans Crossroads)	RS14C170100	Northeast	5km	3-4 "Moderate"

The Site of the Proposed Development is situated on the Curragh Gravels West (IE_SE_G_133) groundwater body (GWB) which was assigned a status of Good and not at risk, for the 2019-2024 survey period (EPA,2025). The aquifer type in the area is Locally Important Aquifer – Bedrock which is Moderately Productive only in Local Zones (GSI, 2025). The groundwater rock units underlying the Site are classified as Dinantian Lower impure Limestones. The level of vulnerability to groundwater contamination from human activities is Moderate throughout the Site (GSI, 2026). The subsoil is comprised of Limestone sands and gravels (Carboniferous) (GLs). The bedrock beneath the Site is mapped as Argillaceous dark grey bioclastic limestone, and subsidiary shale (GSI, 2026).

The Waterbody Status for river, groundwater, transitional and coastal water bodies relevant to the Site as recorded by the EPA (2022) in accordance with European Communities (Water Policy) Regulations 2003 (SI no. 722/2003) are provided in Table 3.

TABLE 3. WFD RISK AND WATER BODY STATUS

Waterbody Name	Water body; EU code	Location from Site	Distance from Site (km)	WFD water body status (2019-2024)	WFD 3rd cycle Risk Status	Hydraulic Connection to the Site
Surface Water Bodies						
Tully Stream	IE_SE_14T 020200	2.5km	South	Poor	At Risk	Weak connection via underlying GWB
Cloncumber Stream	IE_SE_14 C170200	5km	Northeast	Moderate	At Risk	Weak connection via underlying GWB
Transitional Water Bodies						
Barrow, Suir, Nore Estuary	IE_SE_100 _0100	100km	South	Moderate	At Risk	Downstream of the Tully Stream
Groundwater Bodies						
Curragh Gravels West	IE_SE_G_ 133	N/A	N/A	Good	Not at Risk	Underlying groundwater-body

4.2.2 Habitats

The habitats present within the Site, as recorded during the field survey carried out on the 30th of May 2025, are described in this section, and summarised below. Site photographs of these habitats are included in Appendix 9.4, and a map of the habitats is presented in Figure 7.

There are no buildings on Site[3]. The Site is made up of two fields which consist primarily of improved agricultural grassland (GA1) habitat. The upper field (for which only part is included in the Proposed Development footprint) comprises agricultural grassland habitat grown for silage, while the lower field comprises agricultural grassland used for grazing cattle. The perimeters of the fields are enclosed within existing mature hedgerows, treelines and scattered trees, with areas of scrub intersecting or occurring in the understory. These linear habitats are bound to the west, south and east by existing road networks, as outlined above, which lie outside of the red line boundary. There are no hydrological features present on Site, including ponds, pools of standing water, drainage ditches, streams/rivers or trenches. No invasive species were present on Site. The hedgerows and trees that bound the Site were largely comprised of Hawthorn (*Crataegus monogyna*), Blackthorn (*Prunus spinosa*), Ash (*Fraxinus excelsior*), Oak (*Quercus spp.*), and Elder (*Sambucus nigra*). Areas of scrub were dominated by Bramble (*Rubus fructicosus*) and Ivy (*Hedera hibernica*) species, with a lot of Common Nettle (*Urtica dioica*) running adjacent to these linear habitats, on the ground floor, and along the field margins. No rare, protected, or invasive plant species were recorded within or adjacent to the Proposed Development Site.

Nearby and Adjacent habitats

A small, well-sealed, stone wall (BL1) habitat occurs to the northeastern section of the upper field, outside of the red line boundary, as-well as a small section of spoil and bare ground (ED2) habitat, once again occurring outside of the red line boundary for the Site. To the southwest, an immature treeline occurs outside of the red line boundary, bordering the existing Kildare ESB substation fence line.

It is noted that the existing treelines recorded during the May 2025 survey, comprised immature tree species which were planted outside of the red line boundary, within neighbouring lands, including contiguous to the Southgreen road to the west, the ESB substation to the southwest, and neighbouring residences to the east.

[3] BL3 building and artificial surfaces habitats does exist where the final red line boundary intersects with the existing road/pathway networks that bound the Site. This habitat also comprises small pockets of GS2 – Grassy verges and WD5 - Scattered trees and parkland.

4.2.2.1 Improved Agricultural Grassland (GA1)

The Site is made up of two fields (referred to as upper and lower field in this report) which consist primarily of improved agricultural grassland (GA1) habitat. The upper field (for which only part is included in the Proposed Development footprint) comprises agricultural grassland habitat grown for silage, while the lower field comprises agricultural grassland used for grazing cattle. Cattle were observed grazing in the lower field on the day of the survey. This habitat was the dominant habitat type recorded on Site during the May 2025 survey. Aside from the dominant grass sward monoculture of Timothy grass (*Phleum pratense*), the following herb layer was recorded within this habitat: Dandelion (*Taraxacum spp*.), plantains (*Plantago spp*.), Nettle (*Urtica dioica*), thistles (*Cirsium arvense, and C. vulgare*) and docks (*Rumex spp*.). See Appendix 9.4, Photograph 1.

4.2.2.2 Hedgerows (WL1)

Hedgerows made up the second most dominant habitat on Site after Improved Agricultural Grassland. This linear habitat occurred along the margins of the two existing fields that make up the footprint of the Proposed Development. The hedgerows comprised a small number of species, including, Blackthorn, Ash, Oak, and Elder. Hawthorn was the dominant species in most hedgerows observed. The hedgerows did not run continuously around the field margins i.e., they were interrupted by sections of boundary fencing or scrub habitat in parts, particularly to the south of the Site. The hedgerows appeared in good condition and occurred alongside treeline/scattered tree and scrub habitat which was a frequent constitution of both hedgerow and treeline understory. See Appendix 9.4, Photograph 2.

4.2.2.3 Treelines (WL2)

Tree species were predominantly comprised of Hawthorn, Ash, Oak, and Elder. However, pine species were noted in the treelines bordering the neighbouring residences to the east (outside the red line boundary and separated by a boundary fence).

Treelines occurred along the margins of the Site, just outside the red line boundary, bordering neighbouring residences (elder and pine dominant), particularly to the east, and the ESB substation to the southwest (Ash dominant). Similarly, an immature treeline was also noted to the west (ash and oak dominant), bordering the footpath which runs contiguous to the Southgreen Road. Some trees were also found interspersed with hedgerow habitat, including that which divided the upper and lower fields near the centre of the Site. These included Hawthorn and Elder species. See Appendix 9.4, Photograph 3.

4.2.2.4 Scattered Trees and Parkland (WD5)

Scattered trees were found interspersed with hedgerow and scrub habitat in a small area to the eastern section of the Proposed Development Site and along the western boundary of the Site that comprises the existing road/pathway network that bounds the Site. Tree species included Oak, Hawthorn, and Elder. See Appendix 9.4, Photograph 4.

4.2.2.5 Scrub (WS1)

Areas of scrub were recorded along the margins of the Site, alongside hedgerow habitat. These areas were dominated by Bramble and Ivy (*Hedera hibernica*) species, with a lot of Common Nettle (*Urtica dioica*) running along the field margins. Other species recorded in the understory/ground layer included Cow Parsley (*Anthriscus sylvestris*), Hogweed (*Heracleum sphondylium*), and Greater Burdock (*Arctium lappa*). See Appendix 9.4, Photograph 5.

4.2.2.6 Grassy Verges (GS2)

Grassy verges that are well maintained are found in small mosaic with scattered trees and parkland, along the existing path/road networks that bound the Site and intersect with the Site boundary along parts of the east and western sections.

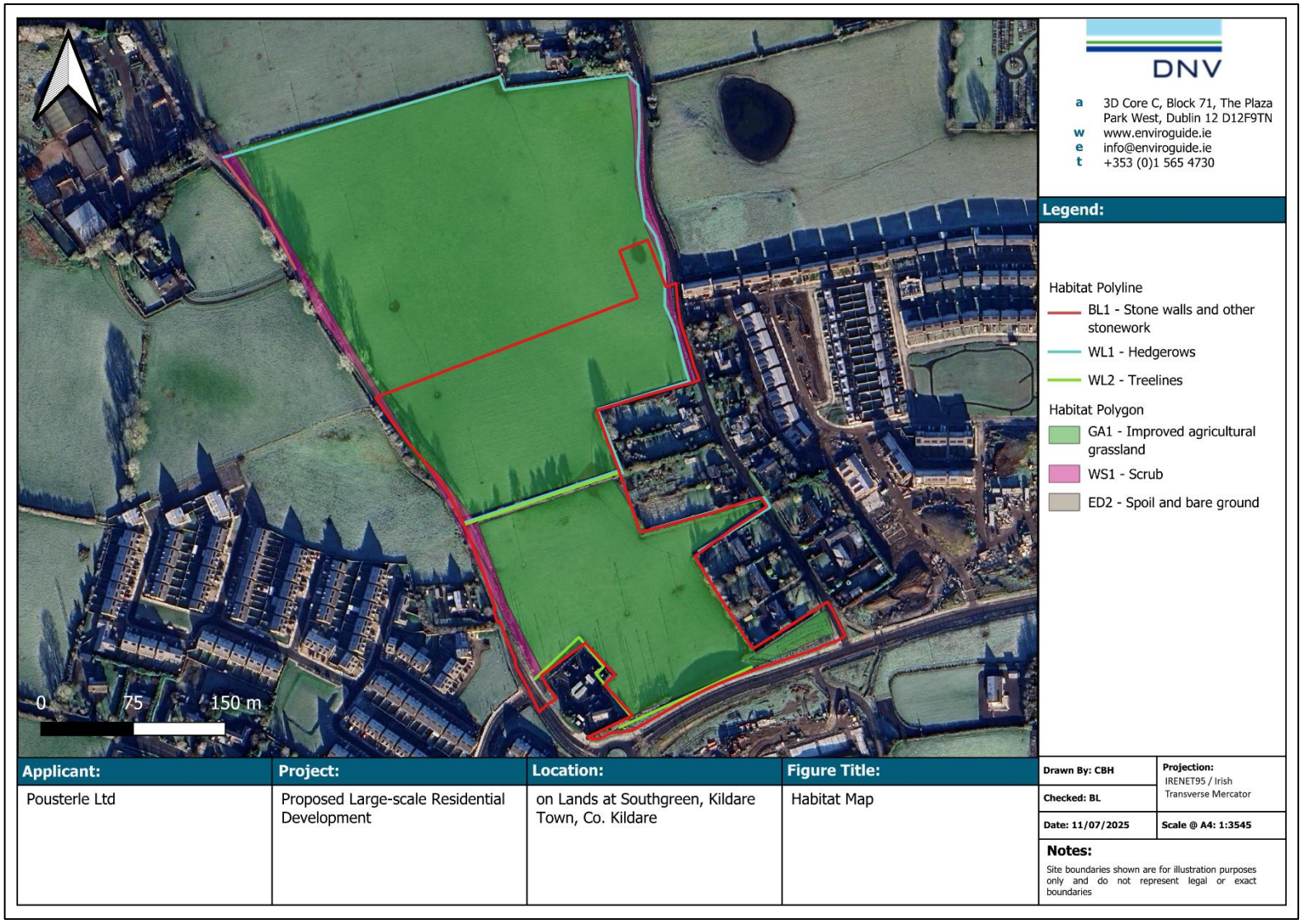


FIGURE 7. MAP OF HABITATS PRESENT AT THE SITE OF THE PROPOSED DEVELOPMENT.

4.2.3 Fauna

4.2.3.1 Bats

Preliminary Bat Roost Assessment

No buildings or structures were present on Site. A total of 2 No. trees on Site were assessed as having PRF-I rating due to the presence of small superficial cracks and exposed holes in the tree limbs. Overall, however, the trees on Site held no bat roost potential (classification: None), with many trees being immature, comprising smooth bark or heavily laden with ivy which acts as a barrier to bat access and egress. Further surveys were therefore not required on the trees on Site, per BCT guidelines, as the trees on Site, in their current condition, based on the assessments contained in this report, are therefore not considered likely to support roosting bats.

Preliminary Bat Habitat Suitability Assessment Survey Results

The linear scrub and hedgerows on Site provide moderate foraging and commuting habitat for local bats, with good connectivity to adjacent scrub, hedgerow and treeline habitats that surround the Site, particularly those to the north, which is less developed in nature and offer greater connectivity to the wider area.

Bat Transect Activity Survey Results

Two species of bat were recorded during the bat transect activity survey conducted in July 2025. These species were also recorded in the historical records held by NBDC for the surrounding area. They are Common Pipistrelle (*Pipistrellus pipistrellus*), and Leisler's Bat (*Nyctalus leisleri*). However, it should be noted that the majority of recordings related to Common Pipistrelle (31) with Leisler's bat being recorded just once during the survey, accounting for 97% and 3% of records, respectively, as shown in Figure 8 below.

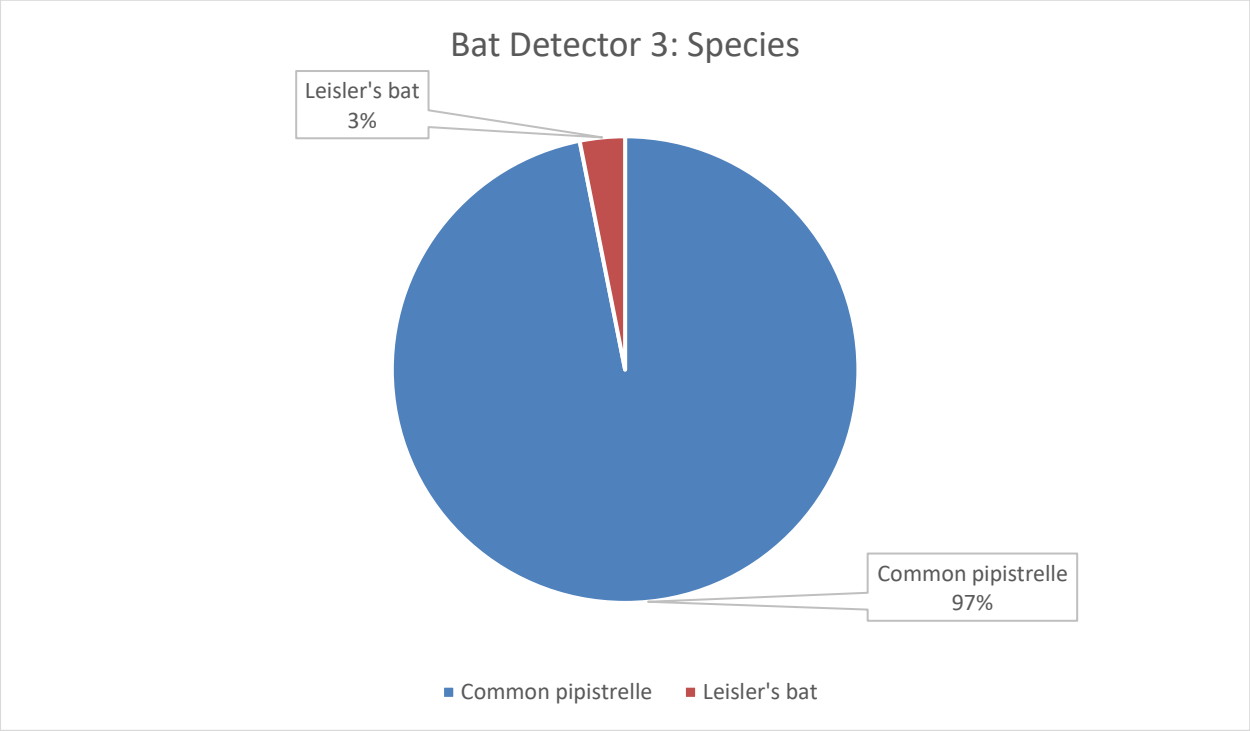


FIGURE 8: SPECIES RECORDED DURING THE BAT TRANSECT SURVEY.

Common Pipistrelle was also visually observed by the surveyors during the transect survey, particularly along the eastern section of the Site, using the east and central hedgerow and scrub habitat (Point counts 6, 7, 18, 19, and 20 on the bat transect map, Figure 6, above).

4.2.3.2 Birds

During the Site walkover on the 30th of May 2025, eleven species of birds were recorded (Table 4) at the Site. Of these, only three species are amber listed, and none are red listed, while the remaining species are green listed (Gilbert et al. 2021).

TABLE 4. BIRD SPECIES RECORDED DURING WALKOVER SURVEY ON THE 30TH OF MAY 2025.

Species	BoCCI Status
Blackbird (*Turdus merula*)	Green
Coal Tit (*Periparus ater*)	Green
Common Gull (*Larus canus*)	Amber
Goldfinch (*Carduelis carduelis*)	Green
Jackdaw *(Coloeus monedula)*	Green
Magpie (*Pica pica*)	Green
Rook (*Corvus frugilegus*)	Green
Swallow *(Hirundo rustica)*	Amber
Tree Sparrow *(Passer montanus)*	Amber
Woodpigeon (*Columba palumbus*)	Green
Wren (*Troglodytes troglodytes*)	Green

4.2.3.3 Mammals (excl. bats)

Overall mammal activity on Site during the May 2025 visit was very low. There was some evidence of mammal trails along the perimeter of the Site but mostly moving between fields through the existing hedgerows and scrub habitat. Fox (*Vulpes vulpes*) scat was recorded along the eastern section of the Site. However, Fox is not a protected species in Ireland.

There was no evidence of Badger (*Meles meles*) on Site (in the form of trails, snuffle holes, latrines etc.) nor was there evidence of any other mammals using the Site (including Irish Hare). However, it should be noted that the Site does provide suitable habitat for mammal species such as Badger, Irish Hare, Hedgehog (*Erinaceus europaeus*), and Pygmy Shrew (*Sorus Minutus*) in the form of suitable commuting and foraging habitat. The lack of mammal activity could be attributed to the lack of connectivity to surrounding habitats as the Site is bound on all sides but the north side by existing road network and residential developments, either under construction, partially constructed, or complete.

4.2.3.4 Amphibians

No suitable habitat for amphibians was recorded during the May 2025 survey.

4.2.3.5 Reptiles

No evidence of reptiles was found during the May 2025 survey. The stone wall which occurs outside the red line boundary to the north-west of the upper field did not provide suitable habitat for reptiles as it was well sealed and contained little in the way cracks or crevices for refuge. The grassland habitat could be used by reptiles such as the Common Lizard (*Zootica vivipara*) (Ireland's only native reptile species) in commuting or foraging.

4.2.3.6 Fish

There are no habitats present on Site to support any fish populations.

4.2.3.7 Invertebrates

Several invertebrate species were observed during the May 2025 survey including Red-tailed Bumblebee (*Bombus lapidarius*), Small Tortoiseshell butterfly (*Bombus lapidarius*) and Small White butterfly (*Pieris rapae*). Small mining holes likely belonging to mining bee species were observed in small patches on the ground floor, most notably in the bare ground/spoil heap to the northwest, outside of the red line boundary.

4.2.3.8 Other Protected and/or Notable Species

No other protected or notable fauna were recorded during the field studies completed at the Site.

5 BIODIVERSITY ENHANCEMENT MEASURES

5.1 Landscape Plan

The Landscape Plan incorporates extensive native planting throughout the open spaces of the Proposed Development, including native trees, hedgerows, shrubs, species-rich grassland and wildflower meadow.

The revised[4] landscape proposals establish a coherent and interconnected network of green infrastructure that significantly enhances biodiversity across the site. While some existing hedgerows are required to be removed due to site levels, road alignments and infrastructure constraints, these losses have been addressed through a robust programme of replacement planting and ecological enhancement. New native hedgerows are proposed along the northern and southern site boundaries and along Southgreen Road, reinstating and strengthening linear ecological connectivity across the site in both east–west and north–south directions.

These linear features, combined with extensive areas of native tree planting and biodiverse buffer zones, provide sheltered corridors for commuting and foraging bats, birds and terrestrial mammals. The northern boundary hedgerow in particular is designed to replicate the ecological function of the removed central hedgerow by providing a continuous east–west habitat corridor supplemented by native tree planting and species-rich margins.

To maximise ecological functionality, the design incorporates early establishment of key planting areas, including hedgerows and structural tree planting, prior to or at early stages of construction. These areas will be clearly delineated, protected during construction, and planted using a diverse mix of native species of local provenance with a mixed age structure, including heavier standard specimens to accelerate establishment and ensure rapid formation of functional habitats, in accordance with best practice in hedgerow creation and management.

The landscape strategy delivers a diverse mosaic of habitats, including species-rich wildflower meadows, native whip planting, ornamental pollinator-friendly planting, and structured tree planting. These habitats provide abundant nectar resources for pollinators and support invertebrate communities, forming an important prey base for bats and birds.

The open spaces incorporate a range of spatial and structural conditions, including gently contoured grasslands, SuDS features, tree clusters and specimen planting, providing varied canopy heights and edge habitats. The SuDS network, including swales and attenuation/detention areas, functions not only for drainage but also as valuable seasonal wetland habitat supporting aquatic and damp grassland invertebrates, and providing foraging and drinking opportunities for birds, bats and small mammals.

Extensive native species planting (e.g. hawthorn, blackthorn, hazel, rowan, holly and viburnum) will provide a reliable source of berries, nuts and shelter, enhancing habitat quality for birds and small mammals such as hedgehog and shrew.

[4] The landscape design has been revised (June 2026) in response to the Further Information request and ongoing design team coordination. The accompanying Ecological Impact Assessment has been updated accordingly to reflect the revised layout, planting proposals and green infrastructure strategy. While details of the updated landscape plan are included within this BMP report.

Landscape Plans (Drawing Nos. 26/PL/SG2/LRD/FI 001–010, Hayes Ryan Landscape Architecture, June 2026).

Overall, the integration of native hedgerows, tree planting, species-rich grassland, SuDS features and open space results in a multifunctional, well-connected and ecologically resilient landscape. The scale and extent of proposed planting, including over 280 no. trees and substantial new hedgerow lengths, will offset habitat losses and provide a long-term net enhancement in habitat structure, connectivity and biodiversity value across the site.

The planting schedule, specifications, and establishment and maintenance requirements are detailed within the Landscape Report and will ensure successful implementation and long-term ecological function of the proposed green infrastructure.

5.1.1 Native Hedgerow, wildflower meadow, and Tree Planting

The proposed planting scheme places a strong emphasis on the use of native hedgerows and trees, which are essential for enhancing local biodiversity, improving ecological connectivity, and contributing to the overall environmental resilience of the Site.

5.1.2 Native Hedgerows

The integration of native hedgerows, established using multi-purpose topsoil and bark mulch, will create valuable linear habitats that support a wide range of wildlife. These include nesting birds, small mammals, and pollinating insects such as bees and butterflies. Hedgerows act as ecological corridors, enabling species to move safely across the landscape, which is particularly important in fragmented urban or semi-urban environments.

Native hedgerows also provide natural screening, offering visual privacy and reducing noise pollution from surrounding areas. Their seasonal variation adds aesthetic value and supports year-round ecological functions, including food provision (berries, seeds, nectar) and shelter.

5.1.3 Wildflower Meadows

The Landscape Plan includes the introduction of wildflower meadows across the Site. All wildflower seeds will be Irish Provenance Certified Seed, from a reputable source such as Design by Nature (Wildflowers.ie). To maximise the biodiversity value of the landscaping at the Site, consideration has been made to the All-Ireland Pollinator Plan planting code (NBDC, 2022).

5.1.4 Native Tree Planting

The tree planting strategy includes a mix of clear-stemmed and multi-stemmed semi-mature native trees, carefully selected for their adaptability to local soil and climatic conditions. Key species include:

- Downy Birch: A pioneer species that enhances soil quality and provides habitat for insects and birds.
- Sessile Oak: A keystone species in Irish woodlands, supporting hundreds of insect species and providing acorns for birds and mammals.
- Hawthorn: A dense, thorny shrub ideal for nesting birds, with spring blossoms for pollinators and autumn berries for wildlife.

These trees can contribute significantly to urban greening, offering benefits such as carbon sequestration, urban cooling, and stormwater management. Their presence also helps to visually soften the built environment, creating a more natural and welcoming landscape for both people and wildlife.

In addition to their ecological value, the selected species will enhance the Site's resilience to climate change, improve air quality, and support the long-term sustainability of the Development. The planting design also ensures that these features are integrated into the wider green infrastructure network, maintaining connectivity with adjacent habitats and contributing to a cohesive ecological framework across the wider landscape.

5.1.5 Bio-retention Tree Pits

Bioretention tree pits are proposed within hard landscaped areas of the Site to integrate tree planting with sustainable surface water management. These features are designed to capture, store, and filter runoff from

adjacent impermeable surfaces, supporting the establishment of semi-mature native or near-native tree species such as Silver Birch Betula pendula, Alder Alnus glutinosa, or Field Maple Acer campestre.

The tree pits will incorporate engineered soil media and understorey planting comprised of moisture-tolerant herbaceous species such as Soft Rush (*Juncus effusus*), Purple Loosestrife (*Lythrum salicaria*), and Marsh Marigold (*Caltha palustris*). This planting will provide additional nectar resources for pollinators and improve the structural diversity of the Site.

These features will not only enhance urban greening and contribute to climate resilience, but will also provide localized habitat for invertebrates and foraging opportunities for birds. Furthermore, the integration of bioretention systems will improve water quality and reduce runoff rates, while contributing positively to the overall landscape character of the development.

5.1.6 Swales

Vegetated swales are proposed throughout the Site as part of the SuDS strategy to manage surface water runoff while providing biodiversity enhancements. These features will be shallow, gently sloping channels designed to convey and attenuate runoff, whilst supporting a diverse assemblage of native wet-tolerant grasses and wildflower species such as Meadow Foxtail (*Alopecurus pratensis*), Crested Dog's-tail (*Cynosurus cristatus*), Selfheal (*Prunella vulgaris*), and Meadowsweet (*Filipendula ulmaria*).

The inclusion of these species will provide valuable nectar sources for pollinators and habitat for invertebrates, thereby contributing to the ecological value of the Site. Swales will also offer foraging opportunities for birds and small mammals, whilst acting as linear ecological corridors that enhance habitat connectivity across the development. In addition to their ecological function, the swales will contribute to water quality improvements through filtration and sediment capture, and provide an attractive landscape feature within the Site.

5.1.7 Staged Planting

The landscape design incorporates a strategy of staged delivery through the early establishment of key planting areas, particularly native hedgerows, tree lines and biodiversity buffers. Identified advance planting zones will be implemented once initial groundworks and regrading are complete and, where feasible, at the earliest stage of construction. These areas are to be delineated, protected and planted in advance of the main construction activities to ensure that ecological structure and connectivity are established as early as practicable. The use of a range of planting sizes, including advanced tree stock, will further accelerate habitat development, allowing replacement hedgerows and green corridors to become functional quickly and effectively support fauna movement and foraging across the site.

5.2 Habitat Management

5.2.1 Grassland and Wildflower Meadow Management

A pollinator-friendly mowing regime will be implemented as per the All-Ireland Pollinator Plan 2015-2020 guidance leaflet 'Gardens: actions to help pollinators' :

- Where possible, areas of amenity grass shall be mown on a reduced mowing regime, and shall not be mown until the 15th of April. This will allow important pollinator plants such as Dandelion to flower. Thereafter grass can be cut on a six-weekly rotation (5 cut and lifts per year). Second cut at the end of May, third cut in mid-late July to maximise growth of Clovers and other wildflowers, fourth cut at the end of August and the fifth cut after mid-October.
- Cutting arisings will be removed to an off-site compost facility. Mowing to be carried out when ground conditions are appropriate i.e., when soil is moist but not waterlogged. It is noted that, as these areas of amenity grassland are for use by future residents, there may be limited potential for areas of reduced mowing of amenity grassland, and that this will be adopted where possible (along margins forming a less managed verge may be appropriate).

- Areas of wildflower meadow will be cut 1-2 times annually; once in early spring and once in September as per the All-Ireland Pollinator Plan 2015-2020 guidance leaflet 'Pollinator-friendly grass cutting' .
- Cuttings will ideally be left lie for a few days to allow any seed to drop and then removed. Meadows managed in this way will allow wildflowers to bloom throughout the pollinator season and also provide undisturbed areas for nesting.
- Mowing will be undertaken during dry conditions to avoid compacting and potentially damaging the soil structure.

5.2.2 Hedgerow Management

5.2.2.1 Low-intervention / Low-maintenance Hedgerow Management

The planted hedgerows at the Site and any retained hedgerows will be managed using a low-intervention approach i.e., in a way that maximises the ecological value they provide, with habitat connectivity maintained along the western, northern and eastern margins of the site; connecting it with the wider area.

This connectivity is vital for wildlife such as birds, bats, mammals and insect pollinators in a human landscape such as that which will be provided by the Proposed Development. Additionally, by managing hedgerows and woodland in a more natural way, they will provide more in terms of biodiversity; through increased plant diversity, increased provision of food resources and higher quality shelter to wildlife inhabiting and commuting through the area.

A low-intervention management approach may not be appropriate for internal ornamental hedgerows planted within the main residential area of the Proposed Development, due to aesthetics or logistics, however, it is suited to the remaining native hedgerows within the Site.

The following measures will be adopted by the Management Company tasked with maintaining the Site's landscaping into the future:

- The hedgerow areas located along the outer boundaries of the Site will, as much as is practicable, be allowed to link up with each other. The provision of an almost continuous vegetative margin around the Site; through planted native hedgerows and trees, will maintain habitat connectivity with the surrounding environment.
- Hedgerows will be maintained with a minimum natural meadow strip of 1-2m at their base wherever possible. Hedges with plenty of naturally occurring flowers and grasses at the base support will provide higher quality habitat for local wildlife using the hedges.
- The 1-2m strip at the base of the hedgerow will be cut on a reduced mowing regime to encourage wildflower growth and maximise the value of the hedgerow for pollinators. A two-cut management approach is ideal for suppressing coarse grasses and encouraging wildflowers. Cut the hedgerow basal strip once during February and March (this is before most verge plants flower and it will not disturb ground-nesting birds). Cut the verge once again during September and October (this slightly later cutting date allows plants that were cut earlier in the year time to grow and set seed).

N.B. Raising the cutter bar on the back cut will lower the risk to small mammals.

- Where hedgerow, scrub or woodland understorey trimming needs to occur, delay trimming as late as possible – until January and February as the surviving berry crop will provide valuable food for wildlife. The earlier this is cut; the less food will be available to help birds and other wildlife survive through the winter. Any hedgerow/scrub/woodland trimming will be done outside of the nesting season and due consideration of the Wildlife Act 1976 (as amended) must be taken.
- Where possible, cut these outer boundary hedgerows on a minimum **3-year cycle** (cutting annually stops the hedgerow flowering and fruiting), and cut in rotation rather than all at once - this will ensure some areas of hedgerow will always flower (blackthorn in March, hawthorn in May etc.).
- Where they occur naturally, bramble and ivy should be allowed to grow in hedgerows as they provide key nectar and pollen sources in summer and autumn.

5.2.2.2 Hedgerow Management Methods to Avoid

Hedgerows and woodland understorey will not be over-managed. Tightly cut hedges and vegetation mean there are fewer flowers and berries, thus reducing available habitats, feeding sources and suitable nesting sites.

Hedgerows will not be cut between March 1st and August 31st inclusive. It is both prohibited (except under certain exemptions) and very damaging for birds as this is the period they will have vulnerable nests containing eggs and young birds.

DO NOT use pesticide/ herbicide sprays or fertilisers at all as they can have an extremely negative effect on the variety of plants and animals they support.

5.2.3 General Vegetation Removal

To ensure compliance with the Wildlife Act 2000 as amended, any removal of areas of vegetation (e.g., hedge cutting) will not take place within the nesting bird season (March 1st to August 31st inclusive) to ensure that no significant impacts (i.e., nest/egg destruction, harm to juvenile birds) occur at the Site.

Where any removal of vegetation within the nesting season is deemed unavoidable, a qualified Ecologist will be instructed to survey the vegetation prior to any removal taking place. Should nesting birds be found, then the area of habitat in question will be noted and suitably protected until the Ecologist confirms the young have fledged.

To avoid any issues, the preferred period for vegetation clearance is within the months of September and October. Any large areas of vegetation will be removed in sections working in a consistent direction to prevent entrapment of protected fauna potentially present (e.g., Hedgehog).

5.2.4 Herbicide and Pesticide Use

No herbicides or pesticides will be used within or within close proximity to areas of biodiversity enhancement e.g., wildflower meadows, woodland understorey shrub layer, insect hotels, biodiverse roof planting and log piles. This will protect local pollinators and wildlife and maximise the biodiversity value of these enhancement features.

5.2.5 General Management

The following best practice maintenance measures will be followed as part of the regular management of the habitats on Site:

- Periodic inspection for and if necessary, clean-up of litter.
- Physical removal of undesirable non-native or invasive shrub or herb species should these be recorded within the Site during the Operational Phase. Chemical control will be used only as a last resort.
- Signage will be erected to help management follow to the pollinator and wildlife friendly management regime, while also informing residents and visitors of these biodiversity enhancement measures (See Figure 6).
- Signage and waste bins will be provided at the Site to minimise dog fouling, which can have a negative effect on biodiversity planting by adding excessive amounts of nutrients and “over-fertilising” areas thus reducing the number and types of wildflowers that will grow.

5.2.6 Habitat Management Plan

The development of a habitat management plan for the Site is recommended to ensure longevity and proper maintenance of the proposed enhancement features for the Site. This plan should include, but not be limited to the following:

- Native Planting Maintenance: Regular care of native hedgerows, trees, wildflower meadows, and green roofs to ensure healthy growth and prevent invasive species.
- Seasonal Pruning: Conduct pruning outside of bird nesting season (March–August) and use less intensive measures where possible (e.g., hand tools) to avoid disturbance.

- Deadwood Retention: Leave some deadwood in situ (where safe) to support invertebrates and fungi as trees/hedgerows are pruned.
- Regular Maintenance of SuDS Features: Ensure swales, rain gardens, and attenuation ponds are functioning properly and not overgrown or polluted.
- Biodiversity-Friendly Design: Maintain vegetation around SuDS to attract and support amphibians, insects, and birds.

5.3 Human Made Habitat Management

5.3.1 Hedgehog Highways / Permeable Fencing

By fencing the boundaries of a Site, the land becomes fragmented and largely inaccessible to species such as hedgehog, which like to roam each night in search of food (garden pests e.g., slugs). This can easily be fixed by ensuring that the boundaries and barriers within and surrounding the Site are permeable for hedgehogs[5]. This will allow hedgehogs to move freely between the Site and adjacent sites.

This can be achieved by:

- Providing 13 x 13 cm holes at ground level at various locations along the external mesh fencing (Hedgehog holes).
- Leaving a sufficient gap beneath gates, fences, barriers, etc.
- Leaving brick spaces at the base of any brick walls.

Examples of hedgehog 'highways' are provided below in Figure 9.



FIGURE 9. EXAMPLES OF HEDGEHOG HIGHWAYS THAT COULD BE INCORPORATED INTO THE PROPOSED DEVELOPMENT.

The inclusion of hedgehog highways will be considered as part of the landscape design of the Site, specifically the external mesh fencing proposed. A variety of fence suppliers stock specific hedgehog-friendly fencing options, which can be easily incorporated at little or no additional cost. The 13 x 13cm holes can also be cut into mesh fencing on Site quite easily. These simple measures will provide habitat connectivity at the Site for hedgehogs and reduce the effect of the land-use change on this species.

5.3.2 Bird Boxes

Four bird boxes will be installed as part of the Development within suitable trees on Site. The boxes will be durable. The bird box will be firm and secure to its support, and only paced on trees that are robust and large enough to

[5] At both construction and operational phases i.e., ensuring root protection zone fencing does not act as a barrier to small mammal movement by utilising the methods listed above.

support bird boxes. There are various standard bird box options, and two of each of the following box types will be installed:

- 'Hole type' bird boxes (28 mm hole) for house sparrows:
  - For example, the Eco Small Bird Box, which can be found at the following link: https://www.nhbs.com/eco-small-bird-box
- Open fronted bird boxes for blackbirds and starlings:
  - For example, the Blackbird FSC Nest Box, which can be found at the following link: https://www.nhbs.com/blackbird-fsc-nest-box
- Open fronted bird boxes for wrens and robins:
  - For example, the Eco Robin (Open-Fronted) Nest Box, which can be found at the following link: https://www.nhbs.com/eco-robin-open-fronted-nest-box

Hole type bird boxes should be positioned 2-4m off the ground, with good-visibility, a clear flight line, and away from the prevailing wind direction. The open-fronted boxes for Robins, Wrens and Blackbirds should be installed lower than 2m but amongst dense vegetation, or newly planted vegetation that will grow to become dense upon establishment, and somewhere cats and other predators won't easily see or access them. Boxes will not be drilled or nailed to trees to avoid damage but instead be attached via a wire strap wrapped around the tree.

5.3.3 Bat Boxes

A minimum of four summer bat boxes (e.g., Woodcrete 1FF Schwegler design) will be erected on suitably sized trees along boundary habitats of the Site, the placement of which will be determined by a bat ecologist. The boxes will be installed as part of the landscaping works, so as to not delay their deployment and potential positive effects.

Bat boxes will be sited carefully, and this will be undertaken by a bat specialist. The bat ecologist will erect the bat boxes with assistance from the contractor. Some general points that will be followed include:

- Bat boxes will be erected on trees (or telegraph poles) with no crowding branches or other obstructions for at least 1 metre above and below the bat box.
- Diameter of tree should be wide and strong enough to hold the required number of boxes.
- Locate bat boxes in areas where bats are known to forage or adjacent to suitable foraging areas. Locations will be sheltered from prevailing winds.
- Bat boxes will be erected at a height of 4-5 metres to reduce the potential for vandalism and predation of roosting bats.
- The recommended Woodcrete 1FF design is open at the bottom, allowing the droppings to fall out, and so does not need cleaning.

5.3.4 Living Boundaries

'Living Boundaries' will be provided at the Proposed Development. Providing these "living boundaries," where native planting such as shrubs, scrub, and climbing species is established in front of or alongside hard site boundaries (e.g. walls and fences), can significantly enhance the biodiversity value of an otherwise sterile edge. These vegetated margins create layered habitat structure, offering shelter, nesting opportunities, and foraging resources for birds, small mammals, and invertebrates. Flowering and fruiting species contribute seasonal food sources, supporting pollinators in spring and summer and birds in autumn and winter, while dense scrub provides refuge from predation and disturbance.

Climbing plants can further soften vertical surfaces, adding additional nectar sources and roosting or nesting cover. Collectively, living boundaries also improve habitat connectivity by forming linear corridors that facilitate wildlife movement across the landscape, thereby increasing the ecological permeability and overall resilience of the Development.

5.3.5 Bare Ground Invertebrate Habitat

Leaving patches of bare ground within the proposed landscape can provide valuable habitat for a wide range of invertebrates, particularly ground-nesting bees, wasps, and beetles that rely on exposed, well-drained soils for burrowing and reproduction. These undisturbed areas allow species to complete their life cycles, supporting egg-laying, larval development, and overwintering. To create further diversity of habitat within the bare ground – different

materials such as sand banks (for solitary bees) or different aspects, should be incorporated, for example; creating south facing banks or slopes with even a slight gradient can create warm microclimates for invertebrates (and reptiles).

Bare ground also creates microhabitats with warmer, drier conditions that are not available in densely vegetated areas, increasing habitat diversity at a fine scale. By incorporating such features into the design, the development can enhance local biodiversity, support pollinator populations, and contribute to the overall ecological resilience of the site.

5.3.6 Log Piles for Invertebrates and Fauna

Piles of logs and other woody vegetation arising from the proposed tree felling will be left in suitable secluded wilder margins of the Site where they will remain undisturbed. These will provide habitat for Common Frog and small mammals such as Hedgehog and Pygmy Shrew. These areas of woody debris will also benefit local invertebrate species through the provision of shelter and food sources. Log piles will be left by management and remain undisturbed in discrete locations to allow colonisation by invertebrates and fungi as part of the biodiversity provision in the dense areas of woodland understorey planting. Figure 10 below shows how log piles can be constructed to maximise their biodiversity value.

Additionally, select logs within the log piles could be partially buried to increase moisture retention, which in turn makes them more suitable for fungi, amphibians, and certain invertebrates. While larger logs/dead branches could be used as perch posts to help insectivorous birds forage more efficiently in open areas.

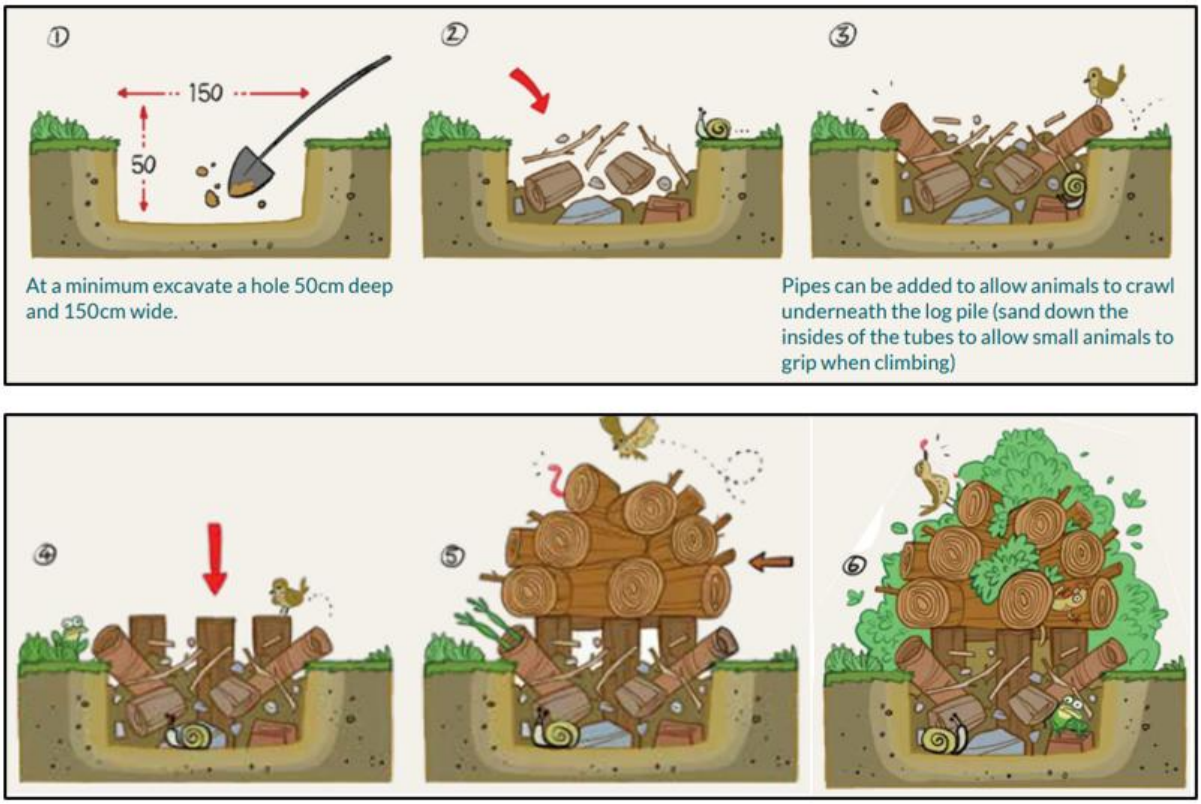


FIGURE 10 EXAMPLE DESIGN OF A WILDLIFE-FRIENDLY LOG PILE. EXTRACTED FROM GARDENING FOR BIODIVERSITY (JUANITA BROWNE, 2020).

5.4 Monitoring Measures

5.4.1 Vegetation Management

The management of the areas of grassland, wildflower meadow and proposed planting at the Site will be assessed once annually during the growing season by an Ecologist, for a period of 5 years; to ensure that these

areas are being managed in a way that maximises their biodiversity value, as laid out in this BMP. The Ecologist will be able to provide further guidance if required, as to the management of these areas.

Where monitoring identifies that habitats or planting are not establishing or performing as intended, adaptive management measures will be implemented in consultation with an Ecologist to ensure the objectives of this BMP are achieved

5.4.2 Post-Construction Bird Box Assessment by an Ecologist

Bird box placement and installation will be undertaken and overseen by an ecologist to ensure they are carried out per specifications. Bird boxes will be monitored by the existing maintenance team and any defects or faults reported to an ecologist who can supervise the installation of new boxes during the appropriate season (before February).

The bird boxes will require emptying from October onwards, which will help prevent the spread of any parasites or disease between nesting birds and encourage birds to nest in the future breeding season. This task will be done once annually by the existing maintenance team.

5.4.3 Post-Construction Bat Box Assessment by an Ecologist

As with the bird boxes, bat box placement and installation will be undertaken and overseen by an ecologist to ensure they are carried out per specifications

Bat boxes installed on development sites should be subject to regular monitoring and maintenance to ensure their continued suitability and to promote long-term use by bats. As such, annual inspections are recommended, ideally to be carried out during autumn or winter when bats are less likely to be present, to check for structural integrity, signs of damage, and secure mounting. While bat boxes typically do not require cleaning, any accumulation of droppings or debris that could obstruct entry or reduce internal space should be carefully inspected and removed.

Inspections should also include checks for pest activity, such as wasp or bird nests, which may deter bat use. Vegetation around the box should be managed to maintain clear flight paths (entry/egress), and artificial lighting in the vicinity should be avoided to preserve a dark environment conducive to bat activity. Lighting will be monitored per Measure 1 above.

Bat box monitoring is proposed as a precautionary and enhancement-led measure to support the establishment of bat roosting opportunities within the Site and to inform adaptive management if required.

5.4.4 Monitoring Schedule

Table 5 below provides a summary of the required monitoring and pre-works inspections during the Operational Phase, as well as any surveys that should be completed during the Operational Phase. The monitoring, inspections and surveys will ensure that the identified mitigation measures are implemented and maintained efficiently and have the desired effect of protecting the local ecology from adverse effects.

TABLE 5. SUMMARY OF MONITORING MEASURES AND THE RESPONSIBLE PERSON FOR MONITORING DURING THE OPERATIONAL PHASE.

Habitat/Species	Operational Phase Management/Enhancement			Operational Phase Monitoring		
	Task	**Frequency**	**Responsibility**	**Task**	**Frequency**	**Responsibility**
Proposed wildflower meadow, amenity grass, and shrub planting.	Where possible and deemed appropriate, five cuts and lifts per year of amenity grass areas, under dry conditions to avoid soil compaction. Collect cuttings and compost off Site. Where possible, grass will not be mown until the 15th of April to allow dandelions to flower. Areas along margins forming a less managed verge may be appropriate.	Where possible, cut on a six-weekly rotation. Second cut at the end of May, third cut in mid-late July to maximise growth of Clovers and other wildflowers, fourth cut at the end of August and the fifth cut after mid-October.	Management Company	These habitats will be monitored to: • Monitor the establishment of the newly planted vegetation. • Ensure the implementation of appropriate management regimes. • Advise on the management regime and/or any changes to the management needed based on the condition of the habitats. • Monitor and record the success of the enhancement measures.	Once annually for 5 years	Ecologist
	Areas of wildflower meadow will be cut 1-2 times annually. Collect cuttings and compost off Site.	Cut once in early spring and once in September.	Management Company			
	Periodic inspection for and if necessary, clean-up of litter.	To be undertaken as part of routine litter management.	Management Company			
	Removal of undesirable non-native or invasive shrub or herb species should these be recorded.	Annually or as required	Management Company			
	Signage to be erected to ensure management adhere to the pollinator and wildlife-friendly management regime.	Once	Developer			
	Herbicides will not be used within these habitats, except in exceptional circumstances where spot control of invasive flora is required.	n/a	Management Company			
Bats	Erection of a bat box scheme which will be erected at appropriate locations	Once, once development complete.	Developer & Bat Specialist	Inspection of bat boxes.	Within one year of erection of bat box scheme	Bat Specialist

Habitat/Species	Operational Phase Management/Enhancement			Operational Phase Monitoring		
	Task	**Frequency**	**Responsibility**	**Task**	**Frequency**	**Responsibility**
	under instruction from a qualified ecologist.			Register bat box scheme with Bat Conservation Ireland. This should be undertaken annually for a minimum of 2 years.	2 years	Bat Specialist
				Monitoring of bat activity and any bat mitigation measures. All mitigation measures will be checked to determine that they were successful.	A full summer bat survey will be carried out post-works.	Bat Specialist
Birds	A minimum of 4 bird boxes will be installed within the dense shrub planting and on trees on the Site, under advice from a qualified Ecologist. The boxes will be durable. The bird box will be firm and secure to its support, and only placed on trees that are robust and large enough to support bird boxes.	Once, once development complete.	Developer & Ecologist	Inspection of bird boxes for damage.	Annually between September-February (outside breeding bird season)	Management Company
	Removal of old nests from bird boxes.	Annually between September-February (outside breeding bird season)	Management Company	n/a	n/a	n/a
Invertebrates	The provision of 2x insect hotels in areas of dense planting. Installation of insect hotels with guidance from an Ecologist.	Once, once development complete.	Developer and Ecologist	n/a	n/a	n/a
	Small discrete log piles will be created using the wood from the felled trees on Site. A suitable location is within the woodland understorey along the north and eastern site boundaries.	Once during landscaping phase and then as required.	Management Company	New logs will be added as the older logs decay.	Several years, or as required	Management Company

6 RESIDUAL IMPACTS

Residual impacts are impacts that remain once mitigation has been implemented or impacts that cannot be mitigated. Both standard Construction Phase control measures, and specific mitigation measures, have been outlined to ensure that the Proposed Development does not impact on any species, habitats or designated sites of conservation importance. It is essential that these measures are complied with, in order to ensure that the Proposed Development complies with National conservation legislation.

Provided all recommended measures are implemented in full and remain effective throughout the lifetime of the Proposed Development, no significant negative residual impacts on the local ecology, or on any designated nature conservation sites, will occur as a result of the Proposed Development.

Furthermore, the implementation of the measures outlined in this BMP will result in a net enhancement of ecological structure, connectivity and habitat diversity within the Site.

7 CONCLUSION

This BMP describes the various ways in which biodiversity has been considered in the design of the Proposed Development. The enhancement measures and management approach detailed within this Report will contribute to the support of biodiversity at the Site during its operational lifetime. The management approaches detailed in this Report will be adhered to as will the various recommendations and commitments relating to post-construction monitoring of vegetation management regime, bats, birds and pollinator habitat.

Should any of the proposed mitigation and/or monitoring measures recommended in this report fail to be adhered to, the Local Authority shall be informed, and appropriate remedial actions will be agreed. Following completion and establishment of the development, long-term management will be undertaken by the appointed Management Company and/or transferred to the Local Authority as part of the taking in charge process, as appropriate. Furthermore, it is recommended that the appointed management body keep a log of all actions undertaken in the event of an audit being undertaken to ensure works are undertaken as described within the report, and to ensure that where monitoring identifies that measures are not performing as intended, appropriate corrective actions will be implemented in consultation with a suitably qualified Ecologist.

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9 APPENDICES

9.1 International Legislation and Policy

EU Birds Directive

The Birds Directive constitutes a level of general protection for all wild birds throughout the European Union. Annex I of the Birds Directive includes a total of 194 bird species that are considered rare, vulnerable to habitat changes or in danger of extinction within the European Union. Article 4 establishes that there should be a sustainable management of hunting of listed species, and that any large scale non-selective killing of birds must be outlawed. The Directive requires the designation of Special Protection Areas (SPAs) for: listed and rare species, regularly occurring migratory species and for wetlands which attract large numbers of birds. There are 25 Annex I species that regularly occur in Ireland.

EU Habitats Directive

The Habitats Directive aims to protect some 220 habitats and approx. 1000 species through-out Europe. The habitats and species are listed in the Directives annexes where Annex I covers habitats and Annex II, IV and V cover species. There are 59 Annex I habitats in Ireland and 33 Annex IV species which require strict protection wherever they occur. The Directive requires the designation of Special Areas of Conservation (SACs) for areas of habitat deemed to be of European interest. The SACs together with the SPAs from the Birds Directive from a network of protected sites called Natura 2000.

Bern and Bonn Convention

The Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention 1982) was enacted to conserve all species and their habitats. The Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention 1979, enacted 1983) was introduced in order to give protection to migratory species across borders in Europe.

Ramsar Convention

The Ramsar Convention on Wetlands is an intergovernmental treaty signed in Ramsar, Iran, in 1971. The treaty is a commitment for national action and international cooperation for the conservation of wetlands and their resources. In Ireland there are currently 45 Ramsar sites which cover a total area of 66,994ha.

Water Framework Directive

The EU Water Framework Directive (WFD) 2000/60/EC is an important piece of environmental legislation which aims to protect and improve water quality. It applies to rivers, lakes, groundwater, estuaries, and coastal waters. The Water Framework Directive was agreed by all individual EU member states in 2000, and its first cycle ran from 2009 – 2015. The Directive runs in 6-year cycles; the second cycle ran from 2016 – 2021, and the current (third) cycle runs from 2022-2027. The aim of the WFD is to prevent any deterioration in the existing status of water quality, including the protection of good and high-water quality status where it exists. The WFD requires member states to manage their water resources on an integrated basis to achieve at least 'good' ecological status, through River Basin Management Plans (RBMP), by 2027.

United Nations (UN) Convention on Biological Diversity (CBD)

The protection of biodiversity is widely recognised as essential, not only to ensure a sustainable supply of natural resources but also for the cultural, recreational, and intrinsic values it provides. Despite this, biodiversity is declining at an accelerating rate due to continued population growth and associated pressures. This growing concern has led to the development of international, regional, and national legislation, including the United Nations Convention on Biological Diversity (CBD), which was opened for signature at the Rio Earth Summit in 1992. Ireland became a signatory in 1992 and ratified the Convention in 1996.

The CBD is supported by the Strategic Plan for Biodiversity, which aims to achieve three core objectives: conserving biological diversity, promoting the sustainable use of its components, and ensuring the fair and equitable sharing of benefits arising from the use of genetic resources.

As a signatory to the CBD, Ireland has developed its own national policies. The first National Biodiversity Action Plan was introduced in 2002 under the Wildlife Act 1976 and included a comprehensive set of actions aligned with European and international conservation initiatives. This framework has since been updated, with the current Fourth National Biodiversity Action Plan covering the period 2023-2030.

9.2 National Legislation

Wildlife Act 1976 and amendments

The Wildlife Act 1976 was enacted to provide protection to birds, animals, and plants in Ireland and to control activities which may have an adverse impact on the conservation of wildlife. With regard to the listed species, it is an offence to disturb, injure or damage their breeding or resting place wherever these occur without an appropriate licence from the National Parks and Wildlife Service (NPWS). This list includes all wild birds along with their nests and eggs. Intentional destruction of an active nest from the building stage up until the chicks have fledged is an offence. This includes the cutting

of hedgerows from the 1st of March to the 31st of August. The act also provides a mechanism to give statutory protection to Natural Heritage Areas (NHAs). The Wildlife Amendment Act 2000 widened the scope of the Act to include most species, including the majority of fish and aquatic invertebrate species which were excluded from the 1976 Act.

The current list of plant species protected by Section 21 of the Wildlife Act, 1976 (and amendments) is set out in the Flora (Protection) Order, 2015 (S.I. No. 356/2015). The Flora (Protection) Order affords protection to several species of plant in Ireland, including 68 vascular plants, 40 mosses, 25 liverworts, 1 stonewort and 1 lichen. This Act makes it illegal for anyone to uproot, cut or damage any of the listed plant species and it also forbids anyone from altering, interfering, or damaging their habitats. This protection is not confined to within designated conservation sites and applies wherever the plants are found.

EU Habitats Directive 1992 and EC (Birds and Natural Habitats) Regulations 2011

The EU Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive 1992) provides protection to particular species and habitats throughout Europe. The Habitats Directive has been transposed into Irish law through the EC (Birds and Natural Habitats) Regulations 2011.

Annex IV of the EU Habitats Directive provides protection to a number of listed species, wherever they occur. Under Regulation 23 of the Habitats Directive, any person who, in regard to the listed species, "Deliberately captures or kills any specimen of these species in the wild, deliberately disturbs these species particularly during the period of breeding, rearing, hibernation and migration, deliberately takes or destroys eggs from the wild or damages or destroys a breeding site or resting place of such an animal shall be guilty of an offence."

Invasive Species Legislation

Certain plant species and their hybrids are listed as Invasive Alien Plant Species in Part 1 of the Third Schedule of the *European Communities (Birds and Natural Habitats) Regulations* 2011 (SI 477 of 2011, as amended). In addition, soils and other material containing such invasive plant material, are classified in Part 3 of the Third Schedule as vector materials and are subject to the same strict legal controls.

Failure to comply with the legal requirements set down in this legislation can result in either civil or criminal prosecution, or both, with very severe penalties accruing. Convicted parties under the Act can be fined up to €500,000.00, jailed for up to 3 years, or both.

Extracts from the relevant sections of the regulations are reproduced below.

"49(2) Save in accordance with a licence granted [by the Department of Arts, Heritage and the Gaeltacht]*, any person who plants, disperses, allows or causes to disperse, spreads or otherwise causes to grow in anyplace* [a restricted non-native plant]*, shall be guilty of an offence.*

49(3) … it shall be a defence to a charge of committing an offence under paragraph (1) or (2) to prove that the accused took all reasonable steps and exercised all due diligence to avoid committing the offence.

50(1) Save in accordance with a licence, a person shall be guilty of an offence if he or she […] offers or exposes for sale, transportation, distribution, introduction, or release—
(a) an animal or plant listed in Part 1 or Part 2 of the Third Schedule,
(b) anything from which an animal or plant referred to in subparagraph (a) can be reproduced or propagated, or
(c) a vector material listed in the Third Schedule, in any place in the State specified in the third column of the Third Schedule in relation to such an animal, plant or vector material."

All Ireland Pollinator Plan (AIPP)

The publication of the All-Ireland Pollinator Plan (AIPP) in September 2015 positioned Ireland as one of the first European countries to take coordinated action in response to pollinator decline. The Plan aims to safeguard food security, reduce economic risks to agriculture, and support wider ecosystem health. It provides a collaborative, voluntary framework through which a broad range of stakeholders can work together to reverse pollinator losses and restore healthy populations.

The current iteration of the Plan covers the period 2021–2025, building on the initial 2015–2020 programme, and sets out 81 actions to be delivered by over 100 governmental and non-governmental organisations. These actions target a wide audience, including local authorities, businesses, schools, and communities, promoting practical measures to support pollinators across all sectors.

Kildare County Council became a signatory to the All-Ireland Pollinator Plan in 2021. While several towns within County Kildare have developed local community biodiversity action plans.

National Biodiversity Action Plan 2023-2030

The National Biodiversity Plan (NBAP) 2023-2030, the fourth such plan for Ireland, captures the objectives, targets and actions for biodiversity that will be undertaken by a wide range of government, civil society and private sectors. Actions required to achieve the strategic objectives as well as the lead and key partners responsible for their implementation are set out for each of the objectives and their outcomes (Table A1).

TABLE A1: OBJECTIVES AND OUTCOMES OF THE NATIONAL BIODIVERSITY ACTION PLAN 2023-2030.

Objective	Outcome
1: Adopt a Whole-of-Government, Whole-of-Society Approach to Biodiversity	1A. Governance structures and reporting outputs have improved.
	1B. Organisational capacity and resources for biodiversity have increased at all levels of Government.
	1C: Responsibility for biodiversity is shared across the whole of government.
	1D: Biodiversity initiatives are supported across the whole of society.
	1E. The legislative framework for biodiversity conservation is robust, clear and enforceable.
2: Meet Urgent Conservation and Restoration Needs	2A: The protection of existing designated areas and protected species is strengthened and conservation and restoration within the existing protected area network are enhanced.
	2B: Biodiversity and ecosystem services in the wider countryside are conserved and restored – agriculture & forestry.
	2C: Biodiversity and ecosystem services in the wider countryside are conserved and restored – peatlands & climate action.
	2D: Biodiversity and ecosystem services in the marine and freshwater environment are conserved and restored.
	2E: Genetic diversity of wild and domesticated species is safeguarded.
	2F: A National Restoration Plan is in place to contribute to the ambition of the EU Biodiversity Strategy 2030 and global restoration targets.
	2H: Invasive alien species (IAS) are controlled and managed on an all-island basis to reduce the harmful impact they have on biodiversity and measures are undertaken to tackle the introduction and spread of new IAS to the environment.
3. Secure Nature's Contribution to People	3A: Ireland's natural heritage and biocultural diversity is recognised, valued, enhanced and promoted in policy and practice.
	3B: The role of biodiversity in supporting wellbeing, livelihoods, enterprise and employment is recognised and enhanced.
	3C: Planning and development will facilitate and secure biodiversity's contributions to people.
4. Enhance the Evidence Base for Action on Biodiversity	4A: Research funding bodies will have an improved understanding of the research and skills required to address biodiversity research gaps.
	4B: Data relevant to biodiversity and ecosystems, including conservation needs, is widely accessible and standardised.
	4C: Long-term monitoring programmes are in place to guide conservation and restoration goals.
	4D: Ireland has prepared national assessments of ecosystem services.
5. Strengthen Ireland's Contribution to International Biodiversity Initiatives	5A: Science, policy and action on biodiversity conservation and restoration is effectively coordinated in an all-island approach.
	5B: Ireland takes action internationally to cooperate with other countries, sectors, disciplines and communities to address the biodiversity crisis.
	5C: Ireland enhances its contributions to the international biodiversity data drive.

9.3 Local Plans/Policies

Kildare County Development Plan 2023-2029

The policies and objectives relevant to the Proposed Development are listed below:

TABLE A2: RELEVANT POLICIES AND OBJECTIVES OF THE KILDARE COUNTY DEVELOPMENT PLAN.

Aim / Target	Policies and Objectives
Chapter 12: Biodiversity & Green Infrastructure	
Protection and enhancement of biodiversity and landscape, including green infrastructure.	BI P1, BI O2, BI O3, BI O70, BI O72, BI O75
Policies and objectives promoting Biodiversity Net Gain.	BI O5, BI O7,
The requirement for an EcIA.	BI O1, BI O12, BI O38, BI O51
Protection of European sites.	BI P2, BI O6, BI O9, BI O10,
Protection of nationally designated sites for nature conservation.	BI P3, BI O6, BI O14,
Protected species and habitats outside of designated sites.	BI P4, BI O15, BI O16, BI O17, BI O18, BI O19, BI O21, BI O22
Protection and retention of trees, woodlands and hedgerows.	BI P6, BI O26, BI O27, BI O28, BI O29, BI O30, BI O31, BI O32, BI O34, BI O35
Protection of watercourses, lakes, and wetland habitats, including riparian zones.	BI P7, BI O37, BI O41, BI O44, BI O45, BI O46, BI P8, BI O56, BI P15
Require consultation with relevant environmental agencies and statutory bodies (e.g., NPWS, IFI, etc.)	BI O39, BI O43, BI O54, BI O60
Prevent spread of invasive species	BI P9, BI O58,

In addition, Chapter 15 - Development Management Standards of the KCDP 2023-2029 contains detailed guidance on Soft Landscaping, including tables 15.1 a-c which list tree and hedge species approved by the Council, and provides a planting guide of suitable habitats for each (i.e., suited as street trees, hedging, open space, wet habitats, etc.)

Kildare Biodiversity Action Plan 2009 - 2014

Kildare Biodiversity Action Plan is set out to protect and improve biodiversity through the following objectives:

- To facilitate the collection and dissemination of heritage information.
- To raise public awareness, understanding and appreciation of County Kildare's heritage.
- To promote best practice in heritage conservation and management.
- To inform policy and provide advice to Kildare local authorities.

(Kildare Coco, 2025b).

Kildare Draft Biodiversity Action Plan 2026-2031

Kildare County Council has prepared a draft Biodiversity Action Plan for the period 2026–2031, which was available for public consultation until 1 December 2025. The plan outlines five overarching strategic objectives identified by the Biodiversity Working Group.

Of these, **Objective 1: Landscapes for Nature** is particularly relevant to the proposed development. This objective emphasises the importance of integrating nature into future developments through wildlife-friendly landscaping, the creation of ecological corridors, and the provision of stepping stones between habitats. These measures are intended to support the movement, interaction, and long-term viability of plant and animal populations (KCC, 2026a).

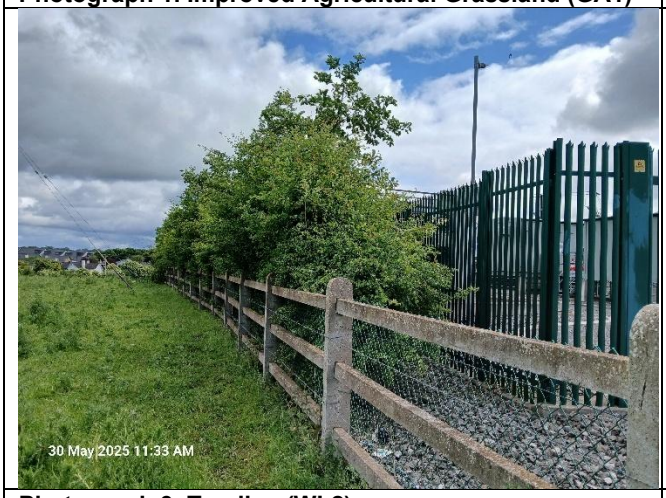
9.4 Site Photographs



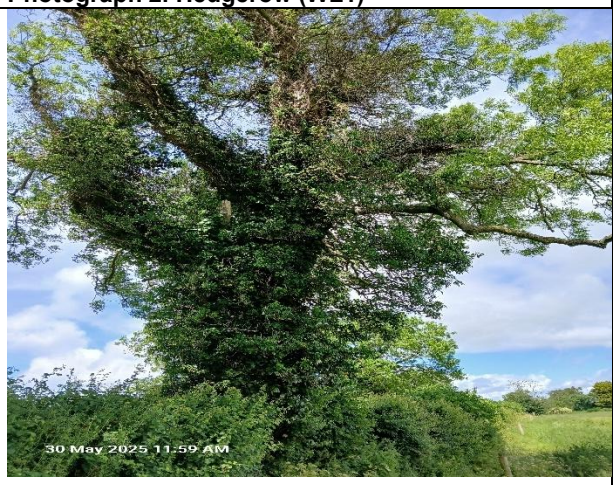
Photograph 1. Improved Agricultural Grassland (GA1)



Photograph 2. Hedgerow (WL1)



Photograph 3. Treeline (WL2)



Photograph 4. Scattered Trees and Parkland (WD5)



Photograph 5. Scrub (WS1)



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