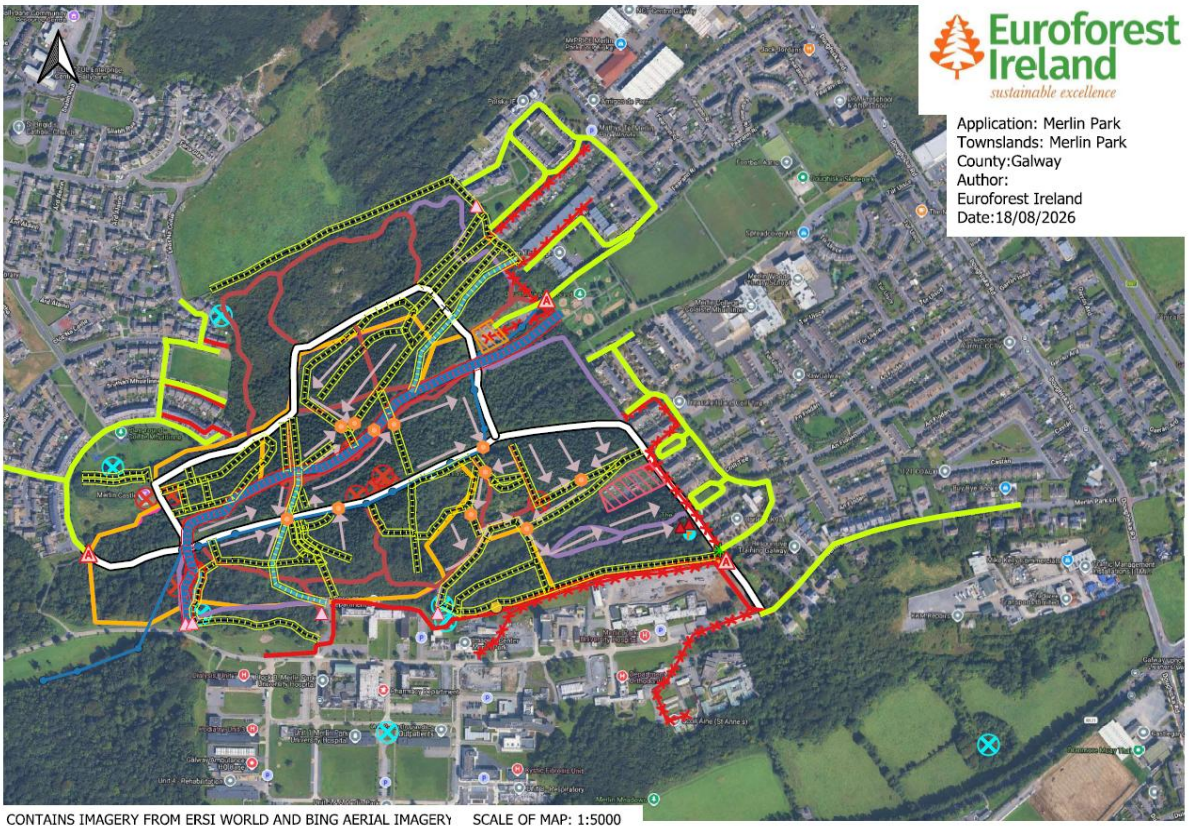
Ecological Assessment and Constraints Report

Merlin Park Woodlands Harvest Operations, Galway City.



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1.0 Introduction

1.1 Project Background

North-West Ecology Ltd. was commissioned by Forestry Services Ltd. on behalf of Galway City Council to undertake an Ecological Assessment and Constraints Survey for proposed woodland management operations within Merlin Park Woods, Galway City.

Merlin Park Woods comprises a publicly accessible urban woodland containing a mosaic of coniferous and broadleaf woodland, semi-natural habitats, limestone pavement, stone wall boundaries and watercourses. The woodland is actively managed for biodiversity, recreation and public amenity and supports a range of ecological features requiring careful consideration during forestry operations. The woodland has been affected by Storm Éowyn (24 January 2025), which resulted in windthrow, stem failure, canopy damage and the creation of additional standing and fallen deadwood. These changes have influenced woodland structure, habitat availability and tree safety considerations and have informed the ecological assessment and management recommendations presented in this report.

To facilitate the safe implementation of the harvesting operations, the active work areas will be temporarily enclosed using secure site fencing for the duration of the works, which are anticipated to extend over approximately three months. The fencing is intended to exclude public access from active operational areas while allowing the woodland management operations to proceed safely. All works will be undertaken during normal daylight working hours and no additional artificial lighting will be required. The proposed works comprise selective harvesting and associated forestry operations within identified management compartments. Associated operational activities include timber extraction, temporary timber stacking, establishment of machinery access routes, temporary watercourse crossings where required and ancillary operational areas. Due to the ecological sensitivity of parts of the site, woodland operations require careful planning to ensure that important ecological features are identified, protected and incorporated into operational planning.

This report presents the findings of the ecological verification survey undertaken to inform operational planning and to identify ecological constraints, mitigation requirements and ecological protection measures necessary for implementation of the proposed works.

Woodland management operations have the potential to affect sensitive ecological receptors through direct disturbance, habitat damage, hydrological alteration, accidental pollution and the spread of invasive non-native plant species if not appropriately planned and managed. Accordingly, ecological constraints have been identified at an early stage to inform operational planning and to facilitate compliance with applicable environmental legislation, national forestry standards and recognised best practice.

1.2 Purpose of the Assessment

The purpose of this assessment is to identify ecological constraints within the proposed operational areas and areas potentially affected by the proposed forestry operations, and to provide practical ecological recommendations to avoid, minimise or mitigate potential impacts on sensitive ecological receptors.

The assessment has been undertaken to verify existing ecological information, identify environmentally sensitive features requiring protection during woodland operations and provide ecological mitigation measures for incorporation into the project Environmental Management Plan

(EMP). The findings will assist Galway City Council, Forestry Services Ltd., Euroforest and appointed contractors in implementing the proposed works in accordance with environmental legislation and recognised best practice.

The assessment has been undertaken to inform the design and implementation of the proposed forestry operations and to provide ecological mitigation measures for incorporation into the Environmental Management Plan (EMP). The assessment has been completed with reference to the requirements of:

- The Habitats Directive (92/43/EEC);
- The Birds Directive (2009/147/EC);
- European Communities (Birds and Natural Habitats) Regulations 2011–2025;
- Wildlife Acts 1976–2023;
- Flora (Protection) Order 2015;
- European Union (Invasive Alien Species) Regulations;
- Water Framework Directive (2000/60/EC);
- Forestry Act 2014;

together with relevant Department of Agriculture, Food and the Marine (DAFM) Forestry Standards, Environmental Requirements and published guidance documents applicable to forest operations.

1.3 Scope

The Ecological Assessment comprised a verification and constraints survey of the proposed woodland management and harvesting operations within Merlin Park Woodlands, Galway City. The assessment was undertaken to verify the existing ecological baseline, identify ecological constraints associated with the proposed operations and develop practical mitigation measures to avoid or minimise impacts on sensitive ecological receptors.

At the time of the July 2026 surveys, the assessment encompassed the proposed harvesting compartments together with associated operational infrastructure, including timber extraction routes, machinery access tracks, timber stacking areas, temporary crossing locations, turning areas, fuel storage locations and adjacent habitats within the potential zone of influence of the proposed works. The assessment also considered temporary ecological effects associated with the duration of the harvesting operations, including temporary site fencing, changes in access within the woodland and short-term disturbance arising from machinery operations.

The scope of the assessment included:

- Review of available ecological information, habitat mapping and relevant environmental datasets;
- Verification of existing habitat mapping and current site conditions;
- Identification of ecological constraints relevant to the proposed harvesting operations;
- Assessment of limestone pavement (ER2) and associated geological features;
- Assessment of drainage features and associated aquatic habitats;
- Assessment of heritage stone walls and associated ecological features;

- Identification and mapping of invasive non-native plant species;
- Assessment of retained broadleaved woodland, veteran trees and other sensitive woodland habitats;
- Identification of ecological features with the potential to support protected species; and
- Development of ecological mitigation measures and project-specific Ecological Protection Method Statements (EPMS) for incorporation into the Environmental Management Plan (EMP).

The assessment extended beyond the immediate operational footprint where ecological receptors may be susceptible to indirect effects arising from forestry operations. Particular consideration was given to the potential for impacts associated with machinery movement, sediment mobilisation, changes in surface water drainage, accidental pollution, damage to retained vegetation and the spread of invasive non-native plant species.

The assessment has been undertaken in accordance with current ecological survey standards and follows the mitigation hierarchy of avoidance, minimisation and protection. The findings have informed the preparation of the Ecological Constraints Map, Invasive Species Map, Ecological Mitigation Schedule and accompanying Ecological Protection Method Statements to support implementation of the proposed woodland management operations in accordance with relevant environmental legislation, Department of Agriculture, Food and the Marine (DAFM) Forestry Standards and recognised ecological best practice.

Following completion of the July 2026 field surveys, the proposed harvesting and operational layout was revised by Euroforest Ireland. The revised layout, dated 18 August 2026, includes areas that were not identified as part of the harvesting footprint at the time of the field surveys.

The revised operational footprint has been reviewed against the existing ecological baseline, including the 2025 habitat mapping, available ecological records and the findings of the July 2026 verification surveys. The ecological constraints identified through the assessment relate to features occurring throughout the wider Merlin Park woodland, including limestone pavement, drainage features, historic stone walls, retained broadleaved woodland and veteran trees, invasive plant species and habitats with potential to support protected fauna.

Areas incorporated into the harvesting footprint following completion of the July 2026 field surveys were not subject to the same level of field verification as the harvesting areas identified at the time of survey. These areas are, however, covered by the existing 2025 habitat mapping and wider ecological baseline information reviewed as part of this assessment. On the basis of the available ecological information, the revised harvesting layout does not materially alter the principal ecological constraints identified within Merlin Park Woods or the mitigation and protection measures set out in this report.

2 Site Description

2.1 Study Area

The study area comprises Merlin Park Woods, with particular consideration given to the harvesting compartments and associated operational areas identified at the time of the July 2026 field surveys. The subsequently revised harvesting layout has been reviewed as described in Section 1.3.

The study area extends beyond the immediate harvesting footprint where ecological receptors may be affected by indirect impacts, including sediment mobilisation, hydrological connectivity, machinery movement, pollution pathways and edge effects associated with forestry operations.

Particular attention was given to environmentally sensitive receptors including limestone pavement, watercourses, retained broadleaf woodland, heritage stone walls, invasive plant species and other habitats or species requiring protection during implementation of the proposed woodland management operations.

2.2 Site Description

The project area comprises mixed woodland within Merlin Park, Galway City. The woodland forms part of a larger urban park managed by Galway City Council and is characterised by a mosaic of mature broadleaved woodland, conifer plantation, mixed woodland, scrub, limestone pavement, grassland, drainage features and an extensive network of formal and informal walking paths. The site is a well-established recreational resource and is surrounded by residential development, Merlin Park University Hospital and associated public open space.

The woodland was extensively affected by Storm Éowyn (24 January 2025), with widespread windthrow throughout the conifer plantation. Much of the central and western conifer woodland has been blown down, resulting in extensive areas of fallen timber and deadwood. Scattered standing conifer stems remain throughout these areas, while larger intact blocks of conifer plantation persist towards the eastern part of the site. Broadleaved woodland has generally been less affected, although isolated windblown and damaged trees occur throughout.

The site supports a diverse range of habitats including broadleaved woodland (WD1), mixed broadleaved/conifer woodland (WD2), conifer plantation (WD4), recently windblown woodland (WS5), scrub (WS1), immature woodland (WS2), exposed limestone pavement (ER2), dry meadows and grassy verges (GS2), small pockets of wet grassland (GS4), dense bracken (HD1), drainage ditches (FW4), ornamental planting (BC4), allotments (BC2), hardstanding and paths (BL3), together with the historic stonework of Merlin Castle (BL1).

A network of historic limestone stone walls traverses the woodland, forming long-established landscape features that define former field boundaries and compartments. The walls support locally abundant mosses, lichens and ferns, while also providing habitat connectivity and refugia for invertebrates, small mammals and amphibians. These walls represent an important ecological and cultural heritage feature within the woodland.

An extensive network of surfaced and unsurfaced paths provides public access throughout the site. Narrow bands of semi-natural neutral grassland and occasional wet grassland occur alongside many of these pathways, contributing to local habitat diversity. Several minor woodland tracks were partially obstructed by windblown trees at the time of survey, restricting access in places but remaining passable along the principal routes.

Numerous drainage ditches and ephemeral channels are present throughout the woodland. However, during the field survey (July 2026), all mapped drains and watercourses within the proposed operational area were dry, with no flowing surface water observed.

Ground flora composition varies according to canopy cover and woodland type. Invasive Winter Heliotrope (*Petasites pyrenaicus*) was abundant along woodland paths, track margins and woodland edges throughout the site, but was notably less frequent beneath the closed woodland canopy. Other areas support a typical woodland ground flora together with bramble, ivy, regenerating woody species and locally dense scrub with neutral and wet grasslands along woodland edge.

Overall, the site comprises a structurally diverse urban woodland with a high degree of habitat heterogeneity. The combination of mature broadleaved woodland, extensive storm-damaged conifer plantation, limestone pavement, historic stone walls, semi-natural grassland, scrub and associated recreational infrastructure contributes to the ecological, landscape and amenity value of Merlin Park Woods.

3.0 Methodology

3.1 Desk Study

A comprehensive desk study was undertaken prior to the field survey to establish the ecological baseline, identify environmental sensitivities and inform the scope of the ecological verification survey. Existing ecological information was reviewed together with available spatial datasets, mapping resources and published information relevant to the proposed woodland management operations.

The desk study included a review of the following information sources:

- Existing habitat mapping and woodland compartment information provided by Forestry Services Ltd.;
- Previous ecological assessments, habitat surveys and environmental reports relating to Merlin Park Woods where available including:
    - Browne, A. & Fuller, J. (2009). *Merlin Park Woods Habitat Survey and Management Plan.*
    - Wealdon, D. (2025). *Merlin Park Woods Habitat Survey and Habitat Map.*
    - Aughney, T. (2024). *Static Surveillance Bat Survey of Galway City...*
    - McAney, K. (2013). *Bat Fauna Recorded in Merlin Park Woods.*
- National Biodiversity Data Centre (NBDC) mapping and species records;
- National Parks and Wildlife Service (NPWS) mapping, designated site information and published conservation data;
- Environmental Protection Agency (EPA) environmental mapping and datasets;
- Geological Survey Ireland (GSI) geological mapping, including limestone bedrock and karst information;

- GeoHive environmental datasets;
- IFORIS forestry mapping and associated operational information where available;
- Office of Public Works (OPW) flood mapping and associated hydrological information;
- Ancient Woodland Inventory mapping;
- Recent aerial photography and Ordnance Survey Ireland mapping; and
- Other publicly available environmental datasets considered relevant to the assessment.

Information obtained during the desk study was reviewed to identify habitats of ecological importance, designated sites, protected species records, geological constraints, hydrological features, invasive non-native plant species records and other environmental receptors that could potentially be affected by the proposed forestry operations.

The findings of the desk study informed the planning of the field survey, assisted in verifying existing ecological information and guided the assessment of ecological constraints associated with the proposed harvesting operations, extraction routes, machinery access, timber stacking areas and associated operational infrastructure.

The desk study also informed the preparation of the Ecological Constraints Map, Invasive Species Map, Ecological Mitigation Schedule and Ecological Method Statements presented within this report.

3.2 Field Survey

A field verification survey was undertaken by [redacted] on 11 July 2026 and 22 July 2026 to verify and update the ecological baseline established during the habitat survey completed in 2025. Surveys were carried out under overcast, dry conditions with a gentle breeze, providing suitable conditions for ecological assessment.

The initial survey comprised a systematic walkover of the harvesting and associated operational areas identified in the harvesting proposal available at the time of survey, to verify habitat classifications, assess current site conditions and identify ecological constraints relevant to the proposed harvesting operations. Habitats were verified in accordance with *A Guide to Habitats in Ireland* (Fossitt, 2000), with particular attention given to changes arising since the 2025 survey, including the extensive windthrow associated with Storm Éowyn (24 January 2025).

The second survey included a site walkover with representatives of Forestry Services Ltd., Friends of Merlin Woods and other project stakeholders. The purpose of this visit was to verify ecological constraints identified during the initial survey and to incorporate local ecological knowledge into the assessment. Particular attention was given to Red Squirrel activity, including areas of known or potential use, together with the location and extent of invasive alien plant species, notably Cherry Laurel (*Prunus laurocerasus*) and Winter Heliotrope (*Petasites pyrenaicus*). Observations from the stakeholder walkover have been considered alongside the field survey findings and previous ecological records.

A comprehensive photographic record was compiled during both surveys to document representative habitats, ecological constraints, storm damage, invasive species, public access infrastructure and other notable environmental features.

Following completion of the July 2026 field surveys, the proposed harvesting and operational layout was revised by Euroforest Ireland. The revised layout, dated 18 August 2026, includes areas that were not identified as part of the harvesting footprint at the time of the field surveys. The revised

operational footprint has therefore been reviewed against the existing ecological baseline, including the 2025 habitat mapping, the findings of the July 2026 verification surveys, available ecological records and the ecological constraints identified across the wider Merlin Park woodland.

The review of the revised harvesting layout does not alter the nature of the principal ecological constraints identified within the woodland or the mitigation and protection measures set out in this report.

Survey Limitations

The survey was undertaken during the optimum period for woodland habitat assessment and is considered sufficient to identify the principal ecological constraints associated with the proposed harvesting operations. Access to a limited number of locations was restricted by extensive windblown trees and accumulations of fallen deadwood resulting from Storm Éowyn. These areas were assessed from accessible vantage points where direct access was not practicable.

In addition, all drainage ditches and ephemeral watercourses within the survey area were dry at the time of survey; these observations therefore represent site conditions on the survey dates only and do not preclude seasonal or intermittent flows at other times of the year.

Following completion of the July 2026 field surveys, the proposed harvesting and operational layout was revised by Euroforest Ireland. The revised layout, dated 18 August 2026, includes areas that were not identified as part of the harvesting footprint at the time of the field surveys.

The revised operational footprint has been reviewed against the existing ecological baseline, including the 2025 habitat mapping, available ecological records and the findings of the July 2026 verification surveys. The ecological constraints identified through the assessment relate to features occurring throughout the wider Merlin Park woodland, including limestone pavement, drainage features, historic stone walls, retained broadleaved woodland and veteran trees, invasive plant species and habitats with potential to support protected fauna.

Areas incorporated into the harvesting footprint following completion of the July 2026 field surveys were not subject to the same level of field verification as the harvesting areas identified at the time of survey. These areas are, however, covered by the existing 2025 habitat mapping and wider ecological baseline information reviewed as part of this assessment. On this basis, review of the revised harvesting layout does not materially alter the principal ecological constraints identified within Merlin Park Woods or the mitigation and protection measures set out in this report.

This ecological assessment does not constitute an arboricultural assessment and does not determine the requirement for removal or retention of individual trees on arboricultural or public-safety grounds. Such decisions remain subject to the approved harvesting design and separate arboricultural advice.

No archaeological, architectural heritage or structural assessment was undertaken as part of this ecological commission. Heritage stone walls and associated features were considered insofar as they represent ecological and operational constraints relevant to the proposed forestry works.

3.3 Assessment Methodology

Ecological constraints were assessed through a combination of desktop review, field verification surveys and professional judgement. Each ecological feature identified within the project area was evaluated with regard to:

- **Ecological sensitivity**, including conservation value, legal protection and ecological function;
- **Potential interaction** with the proposed harvesting operations and associated activities;
- **Likelihood and significance of potential impacts**, taking account of the nature and extent of the proposed works; and
- **Requirement for avoidance, protection or mitigation** to ensure compliance with relevant legislation, best practice guidance and sustainable woodland management objectives.

The assessment has been informed by the existing 2025 ecological survey, verification surveys undertaken in July 2026, available desktop information and relevant national guidance, including Fossitt (2000), National Parks and Wildlife Service (NPWS) guidance, Department of Agriculture, Food and the Marine (DAFM) forestry guidance, and Chartered Institute of Ecology and Environmental Management (CIEEM) guidance where applicable. The assessment has considered both direct ecological effects associated with harvesting activities and temporary operational effects arising during the anticipated three-month construction period.

4 Legislative, Policy and Guidance Framework

The ecological assessment has been undertaken having regard to the relevant European and Irish legislation governing the protection of biodiversity, habitats, species, water resources and forestry operations. The assessment has also been informed by applicable forestry guidance and recognised ecological best practice to ensure that environmental constraints have been appropriately identified and mitigation measures incorporated into the proposed woodland management operations.

The principal legislative framework relevant to the proposed works is summarised in Table 5.0 below.

Table 4.1 The principal legislative framework relevant to the proposed works

Legislation	Relevance to this Project
Habitats Directive	Protection of habitats, species and Natura 2000 sites
Birds Directive	Protection of breeding birds and bird habitats
Birds & Natural Habitats Regulations	Irish implementation of the Habitats and Birds Directives; Appropriate Assessment
Wildlife Acts	Protection of flora and fauna
Flora (Protection) Order	Protection of listed plant species

Legislation	Relevance to this Project
IAS Regulations	Prevention of the spread of invasive non-native species
Water Framework Directive	Protection of surface water and aquatic ecosystems
Forestry Act 2014	Regulation of forestry operations and sustainable forest management
EIA Directive	Environmental protection principles applicable to forestry operations

4.1 Habitats Directive (Council Directive 92/43/EEC)

The Habitats Directive provides the principal legislative framework for the conservation of natural habitats and wild fauna and flora throughout the European Union. The Directive requires Member States to maintain or restore protected habitats and species at favourable conservation status and establishes the Natura 2000 network of Special Areas of Conservation (SACs).

The assessment has considered habitats and ecological features within and adjacent to the proposed operational areas that may require protection during implementation of the proposed works. Potential pathways for direct and indirect ecological impacts have been identified to inform appropriate mitigation measures.

4.2 Birds Directive (Directive 2009/147/EC)

The Birds Directive provides protection for all naturally occurring wild bird species within the European Union and establishes Special Protection Areas (SPAs) for the conservation of important bird populations.

Woodland management operations have the potential to disturb nesting birds or affect habitats utilised by breeding and overwintering bird species. Appropriate ecological constraints and seasonal mitigation measures have therefore been identified where necessary.

4.3 European Communities (Birds and Natural Habitats) Regulations 2011–2025

The European Communities (Birds and Natural Habitats) Regulations transpose the Habitats and Birds Directives into Irish legislation. The Regulations provide legal protection for European sites, Annex habitats, protected species and ecological networks and establish the statutory framework for Appropriate Assessment.

The ecological assessment has been undertaken with regard to the requirements of these Regulations and informs the Appropriate Assessment Screening prepared separately for the proposed forestry operations.

4.4 Wildlife Acts 1976–2023

The Wildlife Acts provide statutory protection for wild birds, mammals, plants and other protected fauna within Ireland and regulate activities that may result in disturbance or damage to protected species or their breeding sites and resting places.

Evidence of protected species recorded during the ecological survey has been considered in the assessment of operational constraints and the development of ecological mitigation measures.

4.5 Flora (Protection) Order 2015

The Flora (Protection) Order affords legal protection to specified species of wild flora occurring within Ireland.

Although no comprehensive botanical survey was undertaken as part of this assessment, any legally protected plant species encountered during site surveys or subsequent works should be protected and appropriate ecological advice sought where necessary.

4.6 European Union (Invasive Alien Species) Regulations

The European Union (Birds and Natural Habitats) (Control of Invasive Alien Species) Regulations 2011, together with Regulation (EU) No. 1143/2014 on the prevention and management of the introduction and spread of invasive alien species, establish legal requirements relating to the management and control of invasive non-native species.

The assessment includes identification and mapping of invasive plant species within the operational area together with recommendations to prevent their spread during forestry operations.

4.7 Water Framework Directive (Directive 2000/60/EC)

The Water Framework Directive establishes a framework for the protection and enhancement of surface waters, groundwater and associated aquatic ecosystems, with the objective of achieving and maintaining Good Ecological Status.

The proposed operations have been assessed in relation to potential impacts on watercourses and hydrological pathways. Appropriate mitigation measures have been developed to minimise the risk of sediment release, pollution incidents and deterioration in water quality during implementation of the works.

4.8 Forestry Act 2014

The Forestry Act 2014 provides the statutory framework governing forestry activities in Ireland, including the regulation of tree felling, sustainable forest management and associated environmental protection requirements.

The proposed woodland management operations shall be undertaken in accordance with the requirements of the Forestry Act 2014, the conditions of any applicable felling licence and relevant environmental requirements issued by the Department of Agriculture, Food and the Marine (DAFM).

4.9 Environmental Impact Assessment Directive

Directive 2011/92/EU, as amended by Directive 2014/52/EU, establishes the legislative framework for the assessment of projects likely to have significant effects on the environment.

Although the proposed works do not constitute Environmental Impact Assessment development, the ecological assessment has been undertaken in accordance with the general principles of impact avoidance, mitigation and environmental protection that underpin the Directive.

4.10 Forestry Guidance and Best Practice

In addition to the legislative framework outlined above, this assessment has had regard to current guidance published by the Department of Agriculture, Food and the Marine (DAFM 2019, 2026), National Parks and Wildlife Service (NPWS), Inland Fisheries Ireland (IFI), the Environmental Protection Agency (EPA) and other recognised sources of environmental best practice.

Ecological mitigation measures and Ecological Method Statements presented within this report have been prepared to support compliance with relevant legislation, forestry standards and environmental protection requirements throughout implementation of the proposed woodland management operations.

5 Existing Ecological Information

A review of existing ecological information was undertaken to establish the baseline ecological conditions within Merlin Park Woods and to inform the verification survey and ecological constraints assessment. Existing information included habitat mapping, previous ecological surveys, desktop datasets, consultation with project stakeholders and observations recorded during the July 2026 field verification surveys. This information has been reviewed alongside current site conditions to identify any significant changes since the original surveys, particularly those resulting from Storm Éowyn (24 January 2025).

5.1 Existing Habitat Mapping

A detailed habitat survey and habitat map were prepared for Merlin Park Woods in 2025 by [redacted] on behalf of Forestry Services Ltd. The survey classified habitats in accordance with A Guide to Habitats in Ireland (Fossitt, 2000) and identified a diverse mosaic of woodland, scrub, grassland, limestone pavement, drainage features and built habitats across the site.

The 2025 habitat map formed the primary ecological baseline for the current assessment and was reviewed in conjunction with the July 2026 field verification surveys. Habitat boundaries and classifications were generally found to remain representative of site conditions. Consequently, the existing habitat mapping has been adopted for the purposes of this report, with updates made where field observations identified changes relevant to the proposed harvesting operations.

Minor amendments have also been made to reflect field observations recorded during the verification surveys, including the current distribution of invasive alien plant species, the condition of woodland access routes and confirmation of ecological features requiring protection during the proposed harvesting operations.

5.2 Existing Ecological Records & Consultation

A review of existing ecological information was undertaken to inform the assessment of ecological constraints within Merlin Park Woods. Information was compiled from statutory datasets, previous ecological reports, local ecological knowledge and consultation with relevant stakeholders. These records were used to identify protected species, habitats of conservation importance and ecological features requiring consideration during the proposed harvesting operations.

National Biodiversity Data Centre (NBDC)

Species records obtained from the National Biodiversity Data Centre (NBDC) confirmed the presence of a diverse assemblage of protected and notable flora and fauna within the Merlin Park area and surrounding 1 km grid squares. Records include protected mammals, bats, woodland birds, Birds of Conservation Concern, amphibians, invertebrates and invasive alien plant species. These records were considered alongside field survey findings to inform the ecological constraints assessment.

Previous Ecological Studies

A review of available historical ecological information was undertaken. The principal historical ecological document available for review was the Merlin Park Woodland Habitat Survey and Management Plan:

Browne, A. & Fuller, J. (2009). *Merlin Park Woodland Habitat Survey and Management Plan. Final Report prepared for Galway City Council and The Heritage Council.* November 2009.

A comprehensive habitat survey and management plan for Merlin Park Woods was prepared by Browne and Fuller (2009) to inform the long-term management of the woodland. The report identified Merlin Park Woods as one of the largest urban woodlands in Galway City and recognised its high biodiversity, landscape and recreational value within an increasingly urbanised setting.

The survey recorded a diverse range of habitats including native oak-ash-hazel woodland, mixed broadleaved woodland, conifer plantation, limestone pavement, wet grassland, scrub and drainage channels. Limestone pavement was identified as a habitat of particular conservation importance, while areas of native woodland, veteran trees, old woodland and structurally diverse mixed woodland were highlighted as key ecological assets. The report also documented records of bats, breeding birds and red squirrel, together with evidence of bat activity within the woodland.

The principal management recommendations included maintaining the overall woodland extent and ecological integrity, avoiding further fragmentation, protecting priority habitats, retaining veteran trees and controlling invasive non-native plant species. These recommendations remain broadly consistent with the ecological objectives of the current harvesting proposals, which seek to retain the principal broadleaved woodland resource and associated ecological features while removing storm-damaged conifer stands and implementing appropriate ecological protection measures.

The earlier survey also recognised limestone pavement, mature broadleaved woodland, veteran trees and habitat connectivity as defining ecological characteristics of Merlin Park Woods. These features were verified during the 2026 ecological surveys, although the woodland structure has been substantially altered by widespread windthrow resulting from Storm Éowyn (January 2025), particularly within the conifer plantations.

Other documents reviewed include:

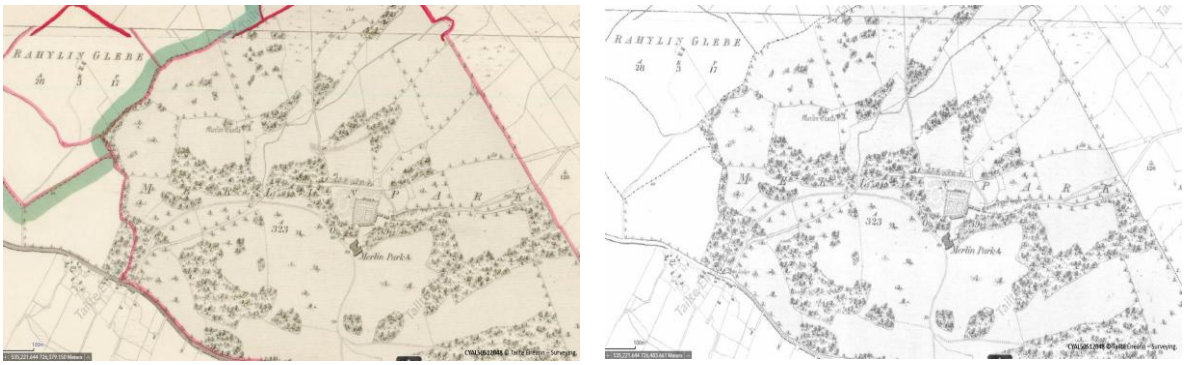
- Wealdon, D. (2025). *Merlin Park Woods Habitat Survey and Habitat Map.*
- Aughney, T. (2024). *Static Surveillance Bat Survey of Galway City...*
- McAney, K. (2013). *Bat Fauna Recorded in Merlin Park Woods.*

GEOHIVE Ancient Woodland

Review of the First Edition Six-Inch Ordnance Survey mapping indicates that broadleaved woodland was present within Merlin Park during the nineteenth century. The long continuity of woodland cover suggests that parts of the site may represent potential ancient woodland, although Ireland has no statutory designation for ancient woodland.

Long-established woodland often supports complex woodland structure, veteran trees, deadwood, ancient woodland indicator species and long-established ecological processes that develop over extended periods. This continuity of woodland cover contributes to the ecological significance of Merlin Park Woods and has been considered in the assessment of potential effects arising from the proposed harvesting operations.

Figure 5.1 Tailte Éireann GeoHive. Historic First Edition 6-inch Ordnance Survey Maps shing old woodland within the project area (c.1837–1842) accessed via the GeoHive Map Viewer, July 1 2026.



National Parks and Wildlife Service

No protected plant species listed under the Flora (Protection) Order 2015 were recorded during the habitat survey and none were listed on the NPWS Flora Protection Order FPO 2022 map viewer (NPWS Flora Protection Order Viewer, accessed 1 July 2026). Similarly, no protected bryophytes were listed on the NPWS FPO viewer (NPWS Bryophytes Viewer, accessed 1 July 2026).

Informal consultation was undertaken with [redacted] (National Parks and Wildlife Service) during preparation of this assessment. As Merlin Park Woods is not designated as a statutory nature conservation site, NPWS does not routinely survey or manage the woodland. However [redacted] provided valuable local ecological observations based on her personal knowledge of the site.

These observations indicate that the exposed limestone and areas of limestone beneath native woodland in the northern section may correspond to Annex I Limestone Pavement (Habitat 8240). Records and observations were also provided for Marsh Fritillary, Greater Spotted Woodpecker, Badger, Jay, Buzzard, Pine Marten, Stoat and several bat species, including Brown Long-eared Bat,

Common Pipistrelle, Soprano Pipistrelle and Leisler's Bat. The woodland was identified as supporting important bat foraging habitat, while Merlin Castle is known to support a Brown Long-eared Bat roost.

NPWS also advised that a dedicated bat survey undertaken by [redacted] in 2014 identified the woodland as supporting significant bat activity and recommended that updated bat surveys be undertaken to inform future woodland management.

Friends of Merlin Woods

Information provided by representatives of Friends of Merlin Woods supplemented the desktop review and field verification surveys. Local ecological knowledge was particularly valuable in identifying areas of known red squirrel activity, locations of invasive alien plant species, historic woodland features and areas of ecological concern associated with the proposed harvesting operations. These observations were considered alongside field survey findings and other available ecological information but were independently verified where practicable during the verification surveys.

Invasive Alien Species and Third Schedule Species

Desktop review identified the potential for the occurrence of invasive alien plant species listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011–2021, together with species listed under the Third Schedule to the European Communities (Birds and Natural Habitats) Regulations and Regulation (EU) No. 1143/2014 on Invasive Alien Species, within the wider area.

The desktop review identified records of several non-native plant species within the surrounding 1 km grid squares, including Rhododendron (*Rhododendron ponticum*), Himalayan Knotweed (*Persicaria wallichii*) Cherry Laurel (*Prunus laurocerasus*), Himalayan Honeysuckle (*Leycesteria formosa*), Three-cornered Garlic (*Allium triquetrum*) and Japanese Rose (*Rosa rugosa*).

In addition, field survey confirmed the presence of Traveller's-joy (*Clematis vitalba*) within the project area, principally associated with woodland edge and limestone pavement habitats. The invasive species have different levels of ecological concern:

Species listed under the Third Schedule

- Rhododendron (*Rhododendron ponticum*)
- Himalayan Knotweed (*Persicaria wallichii*)

Other invasive/non-native species of ecological concern

- Cherry Laurel (*Prunus laurocerasus*)
- Japanese Rose (*Rosa rugosa*) (also a Species of Union Concern under the EU IAS Regulation)
- Three-cornered Garlic (*Allium triquetrum*)
- Himalayan Honeysuckle (*Leycesteria formosa*)
- Traveller's-joy (*Clematis vitalba*)
- Winter heliotrope (*Petasites pyrenaicus*)

Desktop review and field survey identified the presence of a number of invasive non-native plant species, including species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011–2021, together with other invasive species of ecological concern capable of spreading through forestry operations. Appropriate biosecurity measures will therefore be required to prevent their introduction or further dispersal during harvesting works.

Consultation

As part of the desktop review, consultation was undertaken with relevant ecological organisations and individuals with knowledge of Merlin Park Woods.

National Parks and Wildlife Service (NPWS) provided local ecological observations based on personal knowledge of the site ([redacted] personal communication, 2026), which informed the assessment of protected species and habitats.

Representatives of Friends of Merlin Woods also provided valuable local ecological knowledge during the stakeholder site visit, particularly in relation to red squirrel activity, invasive alien plant species and areas of ecological significance within the woodland.

To supplement the desktop review, [redacted] (BirdWatch Ireland) and [redacted] (University of Galway) were contacted by email on 17 July 2026 seeking any additional information relating to birds, bats and other protected species within Merlin Park Woods. No responses had been received at the time of completion of this report, and the assessment has therefore been based on the best available information, including previous ecological studies, statutory datasets, consultation responses received and field survey findings.

5.3 Designated Sites

Merlin Park Woods is not located within a designated nature conservation site. However, the woodland lies within the zone of influence of several nationally and internationally important ecological sites and forms part of the wider green infrastructure network connecting the urban environment of Galway City with Galway Bay.

The nearest European sites are the Galway Bay Complex Special Area of Conservation (SAC) (Site Code: 000268), located approximately 400 m from the project area, and the Inner Galway Bay Special Protection Area (SPA) (Site Code: 004031), located approximately 500 m from the site. These sites support a range of habitats and species of European conservation importance, including limestone pavement, otter and internationally important assemblages of wintering waterbirds. Hydrological and ecological connectivity between the project area and these designated sites was considered.

Although Merlin Park Woods lies outside the boundaries of the Galway Bay Complex SAC, areas of exposed and partially wooded limestone pavement (ER2) occur within the woodland. This habitat is considered likely to correspond with Annex I Limestone Pavement (Habitat 8240), a Qualifying Interest of the Galway Bay Complex SAC, and is therefore treated as a high-value ecological receptor within this assessment.

No Natural Heritage Areas (NHAs), proposed Natural Heritage Areas (pNHAs) or Nature Reserves occur within the project area. However, the woodland provides important habitat for a range of

protected flora and fauna and functions as a significant component of Galway City's urban ecological network.

Table 5.2.1 Natura sites of interest

Designated Site	Site Code	Approx. Distance	Relevance to Project
Galway Bay Complex SAC	000268	~400 m	Qualifying Interests include Limestone Pavement (8240) and Otter; considered in AA Screening and NIS.
Inner Galway Bay SPA	004031	~500 m	Special Protection Area designated for internationally important wintering waterbirds; considered in AA Screening and NIS.

5.4 Geological Features

Limestone Pavement

Areas of exposed limestone pavement (ER2) occur within Merlin Park Woods, principally within the northern and central sections of the site, as identified by the 2025 habitat survey and confirmed during the July 2026 verification surveys. The habitat comprises exposed limestone bedrock with characteristic grykes and solution fissures supporting a diverse assemblage of calcicolous flora. Areas of limestone pavement are interspersed with hazel scrub, mature broadleaved woodland and localised bracken, reflecting varying stages of natural succession.

The limestone pavement supports a range of characteristic species including wood sage (*Teucrium scorodonia*), goldenrod (*Solidago virgaurea*), Irish whitebeam (*Sorbus hibernica*), rustyback fern (*Asplenium ceterach*), bird's-foot trefoil (*Lotus corniculatus*) and mouse-ear hawkweed (*Pilosella officinarum*), together with an abundance of bryophytes and lichens typical of calcareous substrates. Natural regeneration of hazel and other native woody species is occurring across parts of the pavement, resulting in a mosaic of exposed rock, scrub and woodland habitats.

Although Merlin Park Woods lies outside the boundary of the Galway Bay Complex SAC (Site Code 000268), the limestone pavement present within the woodland is considered likely to correspond with Annex I Limestone Pavement (Habitat 8240), a Qualifying Interest of the SAC. This view is supported by observations provided by [redacted] (NPWS, personal communication, 2026), who noted that both the exposed pavement and more extensive areas of limestone beneath the native woodland canopy in the northern section of the site may comprise Annex I limestone pavement. This is also supported in the previous Merlin Park Woodland Habitat Survey and Management Plan (Browne & Fuller, 2009).

The limestone pavement is a highly sensitive habitat that is vulnerable to physical damage, soil compaction and changes in drainage arising from forestry operations. Particular care will therefore be required during harvesting to avoid direct impacts from machinery movement, timber extraction and timber stacking. No machinery access, timber storage or other ground-disturbing activities should occur within mapped limestone pavement areas or their immediate margins. Existing

vegetation growing naturally on the pavement should be retained wherever practicable to protect the integrity of the habitat and its associated flora.

The accompanying Appropriate Assessment Screening Report identified limestone pavement as one of the principal ecological receptors requiring further consideration due to its conservation importance and its relationship with the Qualifying Interests of the nearby Galway Bay Complex SAC. The protection of these areas therefore represents one of the primary ecological constraints associated with the proposed harvesting operations.

6 Survey Results – Ecological Baseline

6.1 Habitat Verification

Field verification surveys undertaken in July 2026 confirmed that the habitat mapping prepared by [redacted] (2025) provides an accurate representation of the principal habitats occurring within Merlin Park Woods. The habitat map (Figure 6.1) illustrates the distribution of the principal habitat types recorded across the study area and forms the basis for the ecological constraints assessment presented in this report. The woodland continues to comprise a diverse mosaic of broadleaved woodland, conifer plantation, mixed woodland, scrub, exposed limestone pavement, semi-natural grassland, drainage features and amenity infrastructure.

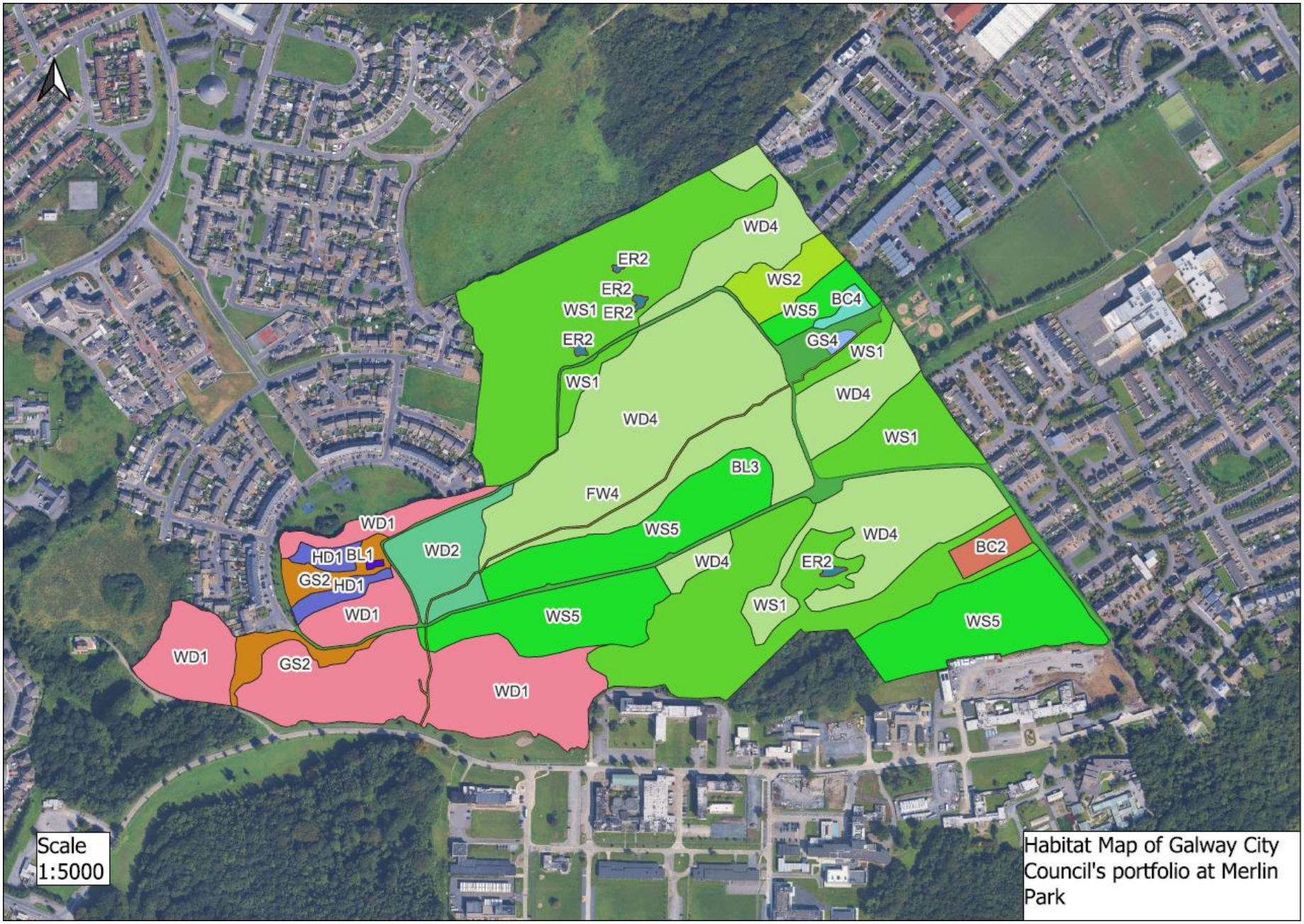
The principal ecological change recorded since completion of the original habitat survey relates to the extensive windthrow resulting from Storm Éowyn (24 January 2025). Significant areas of mature conifer plantation have been affected by windthrow, resulting in widespread tree loss, increased canopy openness and the accumulation of substantial quantities of standing and fallen deadwood. While these changes have altered woodland structure, they have not significantly altered the overall distribution or classification of the mapped habitat types.

Minor updates to the existing habitat mapping were made during the verification surveys to reflect the current distribution of invasive non-native plant species, the condition of woodland access routes and the location of ecological features requiring protection during the proposed harvesting operations. Overall, the existing habitat map remains an appropriate ecological baseline for this assessment.

Fig. 6.1 Habitat Map and Habitat Codes ([redacted] 2025)

Code	Habitat Type	Fossitt Classification
BC2	Allotments	BC2
BC4	Flower Beds and Borders	BC4
BL1	Hedgerows	BL1
BL3	Artificial Surfaces and Buildings	BL3
ER2	Exposed Calcareous Rock (Limestone Pavement)	ER2
FW4	Drainage Ditches	FW4

Code	Habitat Type	Fossitt Classification
GS2	Dry Meadows and Grassy Verges	GS2
GS4	Wet Grassland	GS4
HD1	Dense Bracken	HD1
WD1	Broadleaved Woodland	WD1
WD2	Mixed Broadleaved/Conifer Woodland	WD2
WD4	Conifer Woodland	WD4
WS1	Scrub	WS1
WS2	Immature Woodland	WS2
WS5	Recently Felled / Wind-damaged Woodland	WS5



Habitat Map of Galway City Council's portfolio at Merlin Park

6.2 Woodland Habitats

A large proportion of the conifer woodland is now fallen and listed as recently felled woodland (WS5) in areas where most of the plot is downed. Refer to Habitat Map.

Mixed Broadleaved Woodland (WD1)

Broadleaved woodland occurs throughout Merlin Park Woods and represents one of the most ecologically valuable habitat types within the site. Mature woodland is dominated by ash (*Fraxinus excelsior*), hazel (*Corylus avellana*), sycamore (*Acer pseudoplatanus*), birch (*Betula* spp.), oak (*Quercus robur*) and occasional holly (*Ilex aquifolium*), together with locally abundant ivy and regenerating woody species.

Ground flora is well developed and varies according to canopy density, soil depth and underlying geology. Areas associated with limestone pavement support a species-rich assemblage of woodland herbs, ferns, mosses and lichens, while woodland margins contain bramble, grasses and other semi-natural vegetation. Natural regeneration of hazel and other native tree species is evident throughout the woodland, contributing to a structurally diverse understorey.

Overall, the broadleaved woodland is in good ecological condition and provides valuable habitat continuity within the wider Merlin Park woodland complex.

Conifer Plantation (WD4)

Conifer plantation occupies extensive areas of the woodland and comprises predominantly mature commercial conifer stands established during previous phases of woodland management. These stands form the principal focus of the proposed harvesting operations and shown as WS5 in fig. 6.1 Habitat Map.

The plantation has been extensively affected by Storm Éowyn, with widespread windthrow recorded throughout the southern, central and western sections of the woodland. Large areas now comprise fallen stems, partially windblown trees and isolated standing conifers, while more intact plantation blocks remain within the eastern part of the site.

The resulting increase in canopy openings has altered woodland structure and increased the quantity of deadwood present throughout the plantation. Despite this disturbance, the remaining conifer woodland continues to contribute to the overall structural diversity of the site.

Mixed Broadleaf & Conifer Woodland (WD2)

Mixed woodland occurs where broadleaved species and conifers occur together or where native broadleaved regeneration has naturally colonised plantation woodland. These areas are distributed throughout Merlin Park Woods and form transitional habitats between mature broadleaved woodland and conifer plantation.

The mixed woodland is characterised by a varied canopy structure, regenerating saplings, scattered standing deadwood and a diverse shrub layer. Ground vegetation reflects both woodland types and is locally influenced by limestone geology, canopy cover and historical woodland management.

These transitional habitats contribute to the overall habitat heterogeneity of the woodland and enhance ecological connectivity between adjoining woodland compartments.

6.3 Limestone Pavement (ER2)

Exposed limestone pavement (ER2) occurs principally within the northern and central sections of Merlin Park Woods, as identified by the 2025 habitat survey and confirmed during the July 2026 verification surveys. The habitat comprises exposed limestone bedrock with characteristic grykes and solution fissures, interspersed with pockets of shallow calcareous soil supporting a diverse assemblage of calcicolous flora. Areas of pavement occur in association with hazel scrub, mature broadleaved woodland and localised bracken, creating a complex mosaic of open and partially wooded limestone habitats.

Characteristic species recorded include wood sage (*Teucrium scorodonia*), goldenrod (*Solidago virgaurea*), Irish whitebeam (*Sorbus hibernica*), rustyback fern (*Asplenium ceterach*), bird's-foot trefoil (*Lotus corniculatus*) and mouse-ear hawkweed (*Pilosella officinarum*), together with a rich assemblage of bryophytes and lichens associated with calcareous substrates. Natural regeneration of hazel and other native woody species is occurring across parts of the pavement, reflecting ongoing natural succession.

The limestone pavement remains in generally favourable condition, with no evidence of significant anthropogenic disturbance observed during the verification surveys. Although not located within the Galway Bay Complex SAC, the habitat is considered likely to correspond with Annex I Limestone Pavement (Habitat 8240), consistent with observations provided by the National Parks and Wildlife Service and previous ecological studies.

6.4 Watercourses and Aquatic Habitats

A network of drainage ditches and ephemeral drainage channels is present throughout Merlin Park Woods. These features are generally shallow and follow natural topographic depressions or historic drainage alignments within the woodland. Several drainage features intersect proposed extraction routes and operational areas identified within the harvesting plans.

All mapped drainage channels and watercourses within the survey area were dry at the time of the July 2026 field surveys, with no flowing surface water observed. The absence of standing or flowing water reflects site conditions during the survey period and does not preclude seasonal or intermittent flows during wetter periods of the year.

Aquatic and riparian vegetation was generally limited due to the ephemeral nature of these drainage features. However, the drainage network contributes to local hydrological connectivity within the woodland and forms part of the wider surface water catchment associated with Galway Bay.

6.5 Heritage Stone Walls

An extensive network of historic limestone dry stone walls occurs throughout Merlin Park Woods, defining former field boundaries and historic land divisions across the site. These walls are a prominent landscape feature and remain well represented throughout both the broadleaved woodland and conifer plantation. They have been mapped as part of the operational planning process and incorporated into the ecological constraints mapping in Appendix A.

The walls are generally in good structural condition, although localised collapse and displacement have occurred in places due to natural weathering, vegetation growth and, in some areas, storm-related tree fall. Many walls support a well-developed assemblage of mosses, lichens and ferns, while crevices provide refuges for invertebrates and small vertebrates.

The walls contribute significantly to the historic character of Merlin Park Woods and form an integral component of the woodland habitat network.

6.6 Invasive Plant Species

A number of invasive non-native plant species were recorded during the desktop review and field verification surveys. The principal species confirmed within the project area include Winter Heliotrope (*Petasites pyrenaicus*), Cherry Laurel (*Prunus laurocerasus*) and Traveller's-joy (*Clematis vitalba*), together with additional invasive species recorded from the surrounding area through desktop review.

Winter Heliotrope was the most widespread invasive species encountered during the field surveys. It occurred frequently along woodland paths, track margins and woodland edges, where increased light availability has facilitated its establishment. The species was notably less abundant beneath the closed woodland canopy.

Cherry Laurel was recorded as scattered individual plants and localised stands within the woodland, while Traveller's-joy was principally associated with woodland margins and areas of exposed limestone pavement. Desktop review also identified records of Rhododendron (*Rhododendron ponticum*), Himalayan Knotweed (*Persicaria wallichii*), Three-cornered Garlic (*Allium triquetrum*), Japanese Rose (*Rosa rugosa*) and Himalayan Honeysuckle (*Leycesteria formosa*) within the surrounding area, although these species were not confirmed during the field verification surveys.

The distribution of invasive plant species recorded during the survey has been incorporated into the accompanying Invasive Species Map (Appendix B) to inform the planning and implementation of the proposed woodland management operations. Noting that due to difficulty in accessing the wind damaged areas, not all invasive species distribution may have been recorded.

6.7 Protected Species

No dedicated protected species surveys formed part of this ecological assessment. The following section summarises evidence of protected species recorded during the field verification surveys together with relevant records obtained through the desktop study and stakeholder consultation. The absence of records should not be interpreted as confirmation of species absence.

Bats

A static bat survey undertaken by Bat Eco Services for Galway City Council in 2024 confirmed that the wider Galway City area, including Merlin Park, supports a diverse assemblage of bat species. Nine bat species were recorded within the wider study area, including Brown Long-eared Bat, Common Pipistrelle, Soprano Pipistrelle, Leisler's Bat, Daubenton's Bat, Natterer's Bat, Whiskered Bat, Nathusius' Pipistrelle and Lesser Horseshoe Bat. Merlin Park forms part of a wider woodland network recognised as providing important commuting and foraging habitat for bats.

A 2013 letter prepared by [redacted] for Galway City Council confirmed the presence of Common Pipistrelle (*Pipistrellus pipistrellus*), Soprano Pipistrelle (*P. pygmaeus*), Brown Long-eared Bat (*Plecotus auritus*) and Leisler's Bat (*Nyctalus leisleri*) within Merlin Park Woods. Brown Long-

eared Bat was confirmed roosting within Merlin Castle, where monitoring indicated that the structure supports an important roost. Pipistrelles were also recorded commuting and foraging along woodland paths, hedgerows and tree lines, reinforcing the importance of retaining woodland edge habitat and canopy connectivity wherever practicable. Galway City Council is currently supporting further work investigating landscape connectivity for Lesser Horseshoe Bat within the wider Galway City area ([redacted] 2024; [redacted] 2013).

Merlin Park Woods provides suitable commuting, foraging and potential roosting habitat for bats. Mature broadleaved woodland, veteran trees, standing deadwood and the network of woodland rides contribute to the suitability of the site for bat species. The current assessment confirmed that Merlin Park Woods continues to provide suitable commuting, foraging and potential roosting habitat for bats. Mature broadleaved woodland, veteran trees, standing deadwood and the network of woodland rides all contribute to the ecological suitability of the site. No dedicated bat surveys formed part of the current assessment. The proposed harvesting operations primarily involve the removal of small-diameter conifer stems and standing dead ash (*Fraxinus excelsior*) affected by ash dieback, generally with a diameter at breast height (DBH) of less than 20 cm. Although some of these trees, particularly where dense ivy growth is present, may provide limited roosting opportunities for individual bats, the proposed works are not anticipated to result in the loss of significant tree roost habitat.

Owing to the large number of small-diameter ash trees requiring removal, pre-felling inspection of every individual tree is not considered reasonably practicable. A precautionary approach will therefore be adopted. Trees requiring removal will initially be cut at a suitable height and the retained stem sections left undisturbed for several days prior to further processing, thereby providing any bats that may be present with an opportunity to emerge naturally before the timber is processed. Where trees with obvious or significant Potential Roost Features are identified during operations, works shall cease within the immediate area and appropriate ecological advice shall be sought before works recommence.

Harvesting has been programmed outside the principal bat maternity season. All operations will be undertaken during daylight hours and no artificial lighting is proposed. Consequently, lighting-related impacts on bat commuting and foraging behaviour are not anticipated.

Some localised alteration of bat commuting routes may occur through the removal of adjoining conifer trees. However, the harvesting design retains the majority of mature broadleaved woodland, particularly along woodland edges, with the exception of standing dead ash requiring removal for operational or public safety reasons. Consequently, the principal woodland edge habitats, canopy connectivity and linear landscape features used by commuting and foraging bats are expected to remain largely intact.

Badger

There are previous observations provided through consultation with the National Parks and Wildlife Service. Additional signs of badger activity, including setts, well-used paths and foraging evidence, were not recorded within woodland habitat. Noting the difficulty in accessing wind damaged areas to observe setts. The absence of records should not be interpreted as confirmation of species absence.

Red Squirrel

Evidence of active red squirrel dreys was not recorded during the field surveys. However, the presence of red squirrels within Merlin Park Woods was confirmed through consultation with local

stakeholders, including Friends of Merlin Woods and Dr Colin Lawton (University of Galway). The woodland provides suitable foraging, nesting and dispersal habitat for the species, particularly within the retained mixed woodland and adjoining woodland network.

Following consultation with Dr Lawton, it is considered unlikely that red squirrels will remain within the active harvesting areas once forestry operations commence, owing to the progressive disturbance associated with machinery, noise and human activity. Harvesting has been programmed outside the breeding season, when squirrels are less dependent on nesting dreys, thereby substantially reducing the risk of impacts on breeding animals. The principal ecological objective is therefore to retain the overall habitat resource and woodland connectivity rather than individual dreys within the operational area.

Birds

Merlin Park Woods supports suitable breeding, foraging and roosting habitat for a diverse assemblage of woodland birds. Existing ecological records include Greater Spotted Woodpecker, Jay, Buzzard and a range of common woodland passerines. During the field surveys, woodland habitat suitable for breeding birds was widespread throughout the site.

Temporary disturbance arising from machinery operations and contractor activity is expected to be confined to the operational period. As harvesting is scheduled outside the principal bird breeding season, significant impacts on nesting birds are not anticipated. No night-time working or artificial lighting is proposed, thereby avoiding additional disturbance to nocturnal wildlife.

Other Protected Mammals

Desktop review and consultation identified records of Pine Marten, Stoat and Otter within the wider area. While no direct evidence of these species was recorded during the verification surveys, suitable habitat is present within Merlin Park Woods and associated ecological corridors.

Invertebrates and Amphibians

Existing ecological records indicate the presence of Marsh Fritillary within limestone pavement habitats in the northern section of the woodland. Although no dedicated invertebrate or amphibian surveys were undertaken, the mosaic of woodland, limestone pavement, grassland and ephemeral drainage features provides suitable habitat for a range of protected and notable invertebrates and amphibians. The areas suited to Marsh Fritillary are located north of the harvest operations and outside the brief area. There are other butterfly species known to frequent the grassland and open areas such as Silver-washed Fritillary, Dingy Skipper, Brimstone, Common Blue, Orange Tip, Peacock and Green-veined White.

Survey Limitations

This assessment was not designed as a comprehensive protected species survey and should not be interpreted as confirming the presence or absence of any protected species. The findings presented above are based on field observations, desktop information and consultation undertaken during the preparation of this report.

A Note on Temporary Site Fencing

Temporary site fencing will be erected around the active harvesting areas for the duration of the works to prevent public access into operational areas. Although the fencing will temporarily alter movement patterns for some terrestrial fauna, including badger, fox and other mammals, the works are of relatively short duration (approximately three months) and the fenced area forms only part of

the wider woodland available to these species. The temporary nature of the fencing, together with the availability of adjacent woodland habitat, is not considered likely to adversely affect the local conservation status of these species. As no perimeter fencing will be retained following completion of the works, long-term habitat connectivity will be maintained.

6.8 Other Sensitive Ecological Features

In addition to the principal habitats described above, a number of other ecological features of conservation importance were identified during the field verification surveys.

Veteran Trees

Scattered mature and over-mature trees occur throughout Merlin Park Woods, particularly within the broadleaved woodland and along historic woodland boundaries. Many exhibit features associated with ageing woodland, including broad spreading crowns, cavities, fissures, loose bark, decaying limbs and natural deadwood.

These trees form an important structural component of the woodland and contribute to its long-established character. Veteran trees also support a wide range of associated flora and fauna and provide valuable habitat continuity within the woodland ecosystem. It is not intended to remove any veteran broadleaves. However, for health and safety reasons, dead Ash will be removed.

Standing and Fallen Deadwood

Standing and fallen deadwood is abundant throughout Merlin Park Woods and has increased substantially following the widespread windthrow associated with Storm Éowyn. Extensive accumulations of fallen conifer stems occur within the affected plantation compartments, while standing deadwood and damaged trees are scattered throughout the woodland.

Deadwood occurs in a range of sizes and stages of decomposition and contributes significantly to the structural diversity of the woodland. In addition to the storm-damaged material, naturally occurring deadwood is present throughout the mature broadleaved woodland in the form of standing snags, fallen limbs and decaying timber.

Woodland Edge and Transitional Habitats

Woodland margins, scrub and transitional habitats occur throughout the site, forming gradual ecotones between woodland, grassland and limestone pavement. These transition zones contribute to the overall structural diversity of the woodland and support a wide variety of flora and fauna.

Semi-natural Grassland

Narrow strips and small pockets of semi-natural neutral grassland occur principally along woodland paths, rides and open areas. These habitats increase botanical diversity within the woodland and provide nectar and foraging resources for invertebrates.

Historic Woodland Continuity

Review of historic mapping confirms that woodland has been present on the site since at least the first edition six-inch Ordnance Survey mapping (c. 1837–1842). This long continuity of woodland cover has contributed to the development of a structurally diverse woodland ecosystem supporting mature trees, veteran features, deadwood and characteristic woodland flora.

7 Ecological Constraints Assessment

7.1 Introduction

The ecological verification survey identified a number of ecological features requiring consideration during the planning and implementation of the proposed woodland management operations. The following assessment identifies the principal ecological constraints associated with the proposed works together with the corresponding operational risks and mitigation measures required to avoid or minimise adverse ecological impacts. The proposed works comprise temporary operations of relatively short duration (approximately three months). Temporary disturbance associated with machinery operation, contractor activity and temporary site fencing has therefore been considered alongside permanent habitat changes resulting from the harvesting works.

The assessment follows the mitigation hierarchy of avoidance, minimisation and protection, with ecological mitigation measures designed to support compliance with relevant environmental legislation, DAFM forestry standards and recognised best practice.

7.2 Habitat Constraints

The proposed harvesting operations have the potential to result in incidental damage to retained habitats through machinery movement, timber extraction and soil disturbance if appropriate controls are not implemented. Ecologically sensitive habitats, including limestone pavement, drainage features and retained broadleaved woodland, have been incorporated into the harvesting design and ecological constraints mapping. Protection measures for these habitats are set out within the relevant Ecological Protection Method Statements (EPMSs) and Ecological Mitigation Schedule.

Constraint	**Risk**	**Required Mitigation**
Sensitive habitats adjacent to operational areas	Direct habitat damage, soil disturbance and compaction	Operations shall be undertaken in accordance with the approved harvesting design and the relevant EPMSs. Machinery shall remain within designated operational areas and extraction routes wherever practicable. Refer to the Ecological Mitigation Schedule.

7.3 Limestone Pavement Constraints

Areas of limestone pavement (ER2) represent one of the principal ecological constraints within the site. Limestone pavement is highly susceptible to physical damage from machinery movement, timber storage and repeated trafficking.

Where operational activities occur in proximity to limestone pavement, appropriate exclusion zones and protection measures shall be implemented in accordance with Ecological Method Statement EPMS-02.

Constraint	Risk	Required Mitigation

Limestone pavement (ER2)	Permanent damage to pavement surface and associated flora	Establish exclusion zones. No machinery, timber storage or refuelling within limestone pavement areas. Implement EPMS-02.

7.4 Watercourse Constraints

Surface water features require protection from sediment release, accidental pollution and physical disturbance during forestry operations. Particular attention shall be given to extraction routes, temporary crossing points and refuelling activities.

Appropriate buffer zones shall be maintained and all works undertaken in accordance with Watercourse Protection Measures (EPMS-05).

The revised Harvest Operations Plan dated 18 August 2026 includes a designated machinery crossing associated with the principal aquatic/drainage corridor. Machinery access through the applicable aquatic exclusion zone shall be confined strictly to the designated crossing location shown on the current Harvest Operations Map. The crossing shall be installed, used and managed in accordance with EPMS-05.

Constraint	Risk	Required Mitigation
Watercourses and drainage features	Sedimentation, pollution and deterioration in water quality	Maintain buffer zones, minimise soil disturbance, implement pollution prevention measures and comply with EPMS-05.

7.5 Heritage Stone Wall Constraints

A network of historic stone walls occurs throughout the operational area and has been incorporated into the harvesting design through the establishment of 5 m operational exclusion zones wherever practicable. These walls represent both cultural heritage features and valuable ecological corridors supporting mosses, lichens, ferns, invertebrates and small vertebrates.

At the time of the July 2026 ecological surveys, the proposed operational layout included a series of numbered machinery crossing points. These crossing-point references are retained within the photographic record and relevant sections of this report as a record of the locations assessed during the field surveys. The harvesting layout was subsequently revised in August 2026 and the crossing-point arrangement shown on the current Harvest Operations Map supersedes the original operational layout.

The revised harvesting design includes a number of designated machinery crossing points where access across existing stone wall remains is required to facilitate implementation of the works. These locations are identified on the current Harvest Operations Map. Crossings shall be undertaken in accordance with EPMS-03 and confined to the minimum area necessary for safe implementation of the harvesting operations.

The ecological assessment has verified the location of the mapped stone walls and confirms that the proposed operational exclusion zones provide appropriate protection for the majority of the stone wall network during harvesting operations. The revised harvesting design includes a number of

designated temporary machinery crossing points where access across existing stone wall remains is required to facilitate safe and practical implementation of the works. These crossings shall be restricted to the locations identified on the current Harvest Operations Plan and undertaken in accordance with the mitigation measures set out in EPMS-03 to minimise disturbance and avoid unnecessary damage beyond the designated crossing locations.

Constraint	Risk	Required Mitigation
Heritage stone walls	Structural damage and loss of associated habitats	Maintain 5 m operational exclusion zones wherever practicable. Temporary machinery crossings shall be restricted to the designated operational crossing points identified on the current Harvest Operations Plan. These crossings shall be undertaken in accordance with EPMS-03 and confined to the minimum area necessary for safe completion of the harvesting operations.

7.6 Invasive Species Constraints

Invasive non-native plant species have been recorded within the study area. Forestry operations have the potential to facilitate the spread of invasive species through movement of soils, vegetation, machinery and timber if appropriate biosecurity procedures are not implemented.

All invasive species management shall be undertaken in accordance with EPMS-01.

Constraint	Risk	Required Mitigation
Invasive plant species	Spread of invasive species within and beyond the site	Demarcate affected areas, implement biosecurity measures and comply with EPMS-01.

7.7 Protected Species Constraints

Evidence of habitats suitable for a range of protected fauna was recorded during the ecological assessment. While dedicated surveys for all protected species were not undertaken as part of this commission, the proposed harvesting design has been developed to minimise potential impacts through habitat retention, seasonal timing of works and the implementation of project-specific Ecological Protection Method Statements (EPMSs).

Existing bat records indicate that Merlin Park Woods forms part of an important woodland network used by a range of bat species for commuting and foraging. Previous surveys have confirmed the presence of Brown Long-eared Bat, Common Pipistrelle, Soprano Pipistrelle and Leisler's Bat within Merlin Park, while Brown Long-eared Bat has been confirmed roosting within Merlin Castle adjacent to the woodland. More recent landscape-scale surveys undertaken for Galway City Council further demonstrate the importance of the wider Galway woodland network for bat movement and connectivity.

Constraint	Risk	Required Mitigation
Protected fauna and breeding birds	Disturbance, injury or damage to breeding or resting sites	Implement the relevant project-specific EPMSs, programme works outside sensitive periods where practicable, adopt precautionary working methods and cease works if previously unidentified protected species are encountered.

Where protected species or previously unidentified ecological features are encountered during the works, operations shall cease within the immediate area, the feature shall be protected from further disturbance and the Site Manager shall be notified. The Client shall seek ecological advice where appropriate before works recommence within the affected area.

The principal protected species considerations identified during the assessment are summarised in Table 7.7.1. The associated EPMSs provide practical mitigation measures for implementation by the Contractor and should be read in conjunction with the Ecological Constraints Map (Appendix A), Ecological Mitigation Schedule (Appendix C) and Environmental Management Plan.

Table 7.7.1 Protected Species Constraints

Species	Survey Status	Principal Constraint	Relevant EPMS
Red Squirrel	Presence confirmed through stakeholder consultation. Active dreys not recorded during survey.	Retention of woodland habitat and connectivity. Harvesting programmed outside the breeding season.	EPMS-06
Badger	No active Badger sett was recorded during the ecological verification surveys.	Protection of any previously unidentified Badger sett or evidence of Badger activity encountered during operations	EPMS-07
Bats	Trees with Potential Roost Features (PRFs) present. No confirmed tree roosts recorded.	Avoidance of unnecessary damage to mature broadleaved trees, veteran trees and other trees with obvious Potential Roost Features (PRFs), in accordance with EPMS-08. Where bats or evidence of an occupied roost are encountered during operations, works shall cease within the immediate area and ecological advice shall be sought before works recommence. Precautionary soft-felling techniques, retention of habitat features where practicable and protection of any roosts encountered during operations.	EPMS-08
Breeding Birds	Suitable nesting habitat identified.	Seasonal timing of works and protection of active nests where encountered.	EPMS-09
Otter	No evidence recorded during the ecological verification surveys. Watercourses within the operational area were dry at the time of survey and suitable resting habitat was not identified within the operational footprint.	Protection of watercourses and riparian habitat. Should evidence of Otter or a potential resting site be encountered during operations, works shall cease within the immediate area and ecological advice shall be sought before works recommence.	EPMS-05 / protected-species stop-work procedure

Table 7.7.1 Protected Species Constraints

Species	Survey Status	Principal Constraint	Relevant EPMS
Pine Marten	Suitable woodland habitat for Pine Marten occurs within Merlin Park Woods. No evidence of Pine Marten was recorded during the July 2026 ecological verification surveys; however, the species is known from the wider area and its presence within the woodland cannot be excluded.	Retention of woodland habitat and potential resting features. Should evidence of Pine Marten or a potential den/resting site be encountered during operations, works shall cease within the immediate area and ecological advice shall be sought before works recommence.	EPMS-04 / protected-species stop-work procedure

7.8 Tree Retention and Broadleaf Woodland Constraints

Retained broadleaf woodland forms an important component of the ecological value of Merlin Park Woods, providing habitat connectivity, structural diversity and resources for a range of protected species. The approved harvesting design provides for the retention of broadleaved woodland and broadleaved trees throughout the site. Live broadleaved trees are not proposed for felling, with the exception of individual trees where removal may be unavoidable for public safety reasons. Standing dead ash affected by ash dieback may also require removal for operational or public safety reasons.

It is recognised that forestry operations within an existing woodland cannot entirely avoid localised incidental disturbance to understorey vegetation, scrub, natural regeneration or individual small broadleaved stems. Such disturbance may arise, for example, from the controlled felling of adjoining trees, timber extraction or essential machinery access. This shall be minimised through directional felling, use of designated extraction routes and careful operation of machinery. Incidental disturbance of this nature does not constitute planned clearance of broadleaved woodland, and unnecessary removal or damage to retained broadleaved vegetation shall be avoided.

Veteran trees, habitat trees and retained broadleaved woodland shall be protected throughout the works in accordance with EPMS-04.

Constraint	**Risk**	**Required Mitigation**
Retained broadleaf woodland, habitat trees and veteran trees	Mechanical damage, soil compaction, root disturbance and inadvertent felling	Live broadleaved trees and broadleaved woodland shall be retained in accordance with the approved harvesting design. Unnecessary damage to retained broadleaved vegetation shall be avoided and unavoidable localised disturbance to scrub, natural regeneration and understorey vegetation arising from felling, extraction or essential machinery access shall be minimised. Standing dead ash may be removed where required for operational

Constraint	Risk	Required Mitigation
		or public safety reasons. Protection measures shall be implemented in accordance with EPMS-04.

7.9 Summary of Ecological Constraints

The principal ecological constraints identified during the assessment comprise limestone pavement, watercourses, retained broadleaf woodland, heritage stone walls, invasive non-native plant species and habitats with potential to support protected flora and fauna. Subject to implementation of the mitigation measures and Ecological Method Statements contained within this report, the proposed woodland management operations can be undertaken while avoiding or minimising adverse ecological effects.

8.0 Ecological Mitigation Requirements

The ecological assessment has identified a number of ecological constraints that require implementation of specific mitigation measures during the proposed forestry operations. Table 8.1 summarises the principal mitigation requirements, the timing of implementation and the party responsible for ensuring compliance. The measures should be read in conjunction with the Ecological Constraints Map (Appendix A), Ecological Mitigation Schedule (Appendix B), Ecological Protection Method Statements (Appendix D) and the Environmental Management Plan.

Table 8.1. Summary of Ecological Mitigation Requirements

Ecological Receptor	Potential Impact	Required Mitigation	Timing	Responsibility
Habitats	Damage to retained habitats	Undertake operations in accordance with the approved harvesting design and Ecological Constraints Map. Confine machinery to designated operational areas and extraction routes wherever practicable.	Throughout works	Contractor / Site Manager
Limestone Pavement (ER2)	Physical damage from machinery, timber storage or ground disturbance	Exclude limestone pavement from the operational footprint. No machinery access, timber stacking or spoil storage. Implement EPMS-02.	Throughout works	Contractor
Watercourses & Riparian Habitat	Sedimentation, pollution and bank damage	Maintain DAFM aquatic buffer zones. No refuelling within buffer zones. Prevent sediment release and maintain existing drainage patterns. Implement EPMS-05	Throughout works	Contractor
Heritage Stone Walls	Structural damage and habitat loss	Maintain 5 m operational exclusion zones wherever practicable. Restrict machinery crossings to designated operational crossing points and implement EPMS-03.	Pre-commencement and throughout works	Contractor
Invasive Plant Species	Spread of invasive species through soil or machinery movement	Minimise disturbance of invasive species infestations wherever practicable. Apply biosecurity measures and clean machinery before leaving affected areas. Implement EPMS-01.	Throughout works	Contractor
Retained Broadleaf Woodland	Damage to retained trees and woodland structure	Broadleaved woodland shall be retained in accordance with the approved harvesting design, with the exception of dead ash affected by ash dieback where removal is required for operational or public safety reasons. Implement EPMS-04.	Throughout works	Contractor

Table 8.1. Summary of Ecological Mitigation Requirements

Ecological Receptor	Potential Impact	Required Mitigation	Timing	Responsibility
Red Squirrel	Temporary disturbance to red squirrels and loss of nesting habitat within the operational area.	Programme harvesting outside the breeding season. Retain woodland habitat and connectivity in accordance with the approved harvesting design. If an active breeding drey is encountered during operations, cease works in the immediate area and seek ecological advice. Implement EPMS-06.	Throughout works	Contractor
Badger	Disturbance or damage to active setts. *No active setts identified during survey.*	If an active sett is identified during operations, cease works within the immediate area and seek ecological advice. Directionally fell trees away from active setts where present. Implement EPMS-07.	Throughout works	Contractor
Bats	Disturbance of roosting bats or damage to potential roost features.	Adopt precautionary soft-felling techniques for standing dead ash and retain habitat features where practicable. Trees with obvious Potential Roost Features shall be treated with particular care. If a bat or suspected roost is encountered, cease works and seek ecological advice. Implement EPMS-08	Throughout works	Contractor
Breeding Birds	Disturbance of breeding birds or destruction of active nests	Programme felling from September onwards where practicable. Protect any active nests identified. Implement EPMS-09.	Throughout works	Contractor
Pine Marten	Disturbance to den sites or habitat trees	Retain den trees and associated woodland habitat. Implement species-specific mitigation where required following ecological assessment.	Throughout works	Contractor
Protected species / previously	Disturbance of previously unidentified	Areas incorporated into the operational footprint following completion of the July 2026 field surveys remain subject to the	As required	Contractor

Table 8.1. Summary of Ecological Mitigation Requirements

Ecological Receptor	Potential Impact	Required Mitigation	Timing	Responsibility
unidentified ecological features	breeding/resting sites or ecological constraints.	ecological constraints, mitigation measures and stop-work procedures set out within this report. Cease works within the immediate area and notify the Site Manager. Seek advice from a suitably qualified ecologist before recommencing works.		
Public Access & Wildlife Movement	Temporary restriction of public access and temporary alteration of wildlife movement.	Erect temporary site fencing around active work areas for the duration of the harvesting operations (approximately three months). Remove fencing following completion of the works. No night-time working or artificial lighting is proposed.	Duration of harvesting operations	Contractor

9 Conclusions

An ecological verification survey and constraints assessment were undertaken to inform the proposed woodland management and harvesting operations within Merlin Park Woods, Galway. The assessment comprised a review of existing ecological information, field verification surveys undertaken in July 2026, consultation with relevant stakeholders and consideration of the proposed operational design.

The verification surveys confirmed that the existing habitat mapping provides an appropriate ecological baseline for the site. Although extensive windthrow associated with Storm Éowyn (24 January 2025) has significantly altered the structure of parts of the conifer plantation, the principal habitats and ecological features identified during previous surveys remain present and continue to support a diverse urban woodland ecosystem.

The assessment identified a number of important ecological receptors requiring consideration during implementation of the proposed works. These include areas of limestone pavement, retained broadleaved woodland, historic limestone stone walls, drainage features, invasive non-native plant species, mature woodland habitat and features with the potential to support protected species. These ecological constraints have been identified, mapped and incorporated into the accompanying Ecological Constraints Map, Ecological Mitigation Schedule and Ecological Protection Method Statements to assist operational planning and site management.

The proposed woodland management operations can be undertaken without significant adverse ecological effects, provided the ecological mitigation measures set out in this report are fully implemented. The mitigation measures have been developed in accordance with relevant environmental legislation, current Department of Agriculture, Food and the Marine (DAFM) Forestry Standards and recognised ecological best practice, and are considered practical and proportionate to the nature and scale of the proposed works.

The Ecological Protection Method Statements (EPMS) included within Appendix E should be implemented throughout all phases of the works and incorporated into the project Environmental Management Plan. These documents provide project-specific procedures for the protection of sensitive habitats, protected species, watercourses, heritage stone walls and invasive non-native plant species, and should be read in conjunction with the Ecological Mitigation Schedule and Ecological Constraints Map.

Ecological supervision shall be undertaken where specifically identified within this report and in accordance with the agreed scope of appointment. Should previously unidentified ecological features or protected species be encountered during the works, operations shall cease within the immediate area until appropriate ecological advice has been obtained. The proposed operations are temporary in nature, with harvesting expected to be completed over approximately three months. Following completion of the works, temporary fencing and operational infrastructure will be removed and normal public access restored.

Subject to implementation of the recommendations and Ecological Protection Method Statements contained within this report, the proposed woodland management operations are considered environmentally acceptable and can be undertaken while safeguarding the ecological, geological and heritage features of Merlin Park Woods.

10 References

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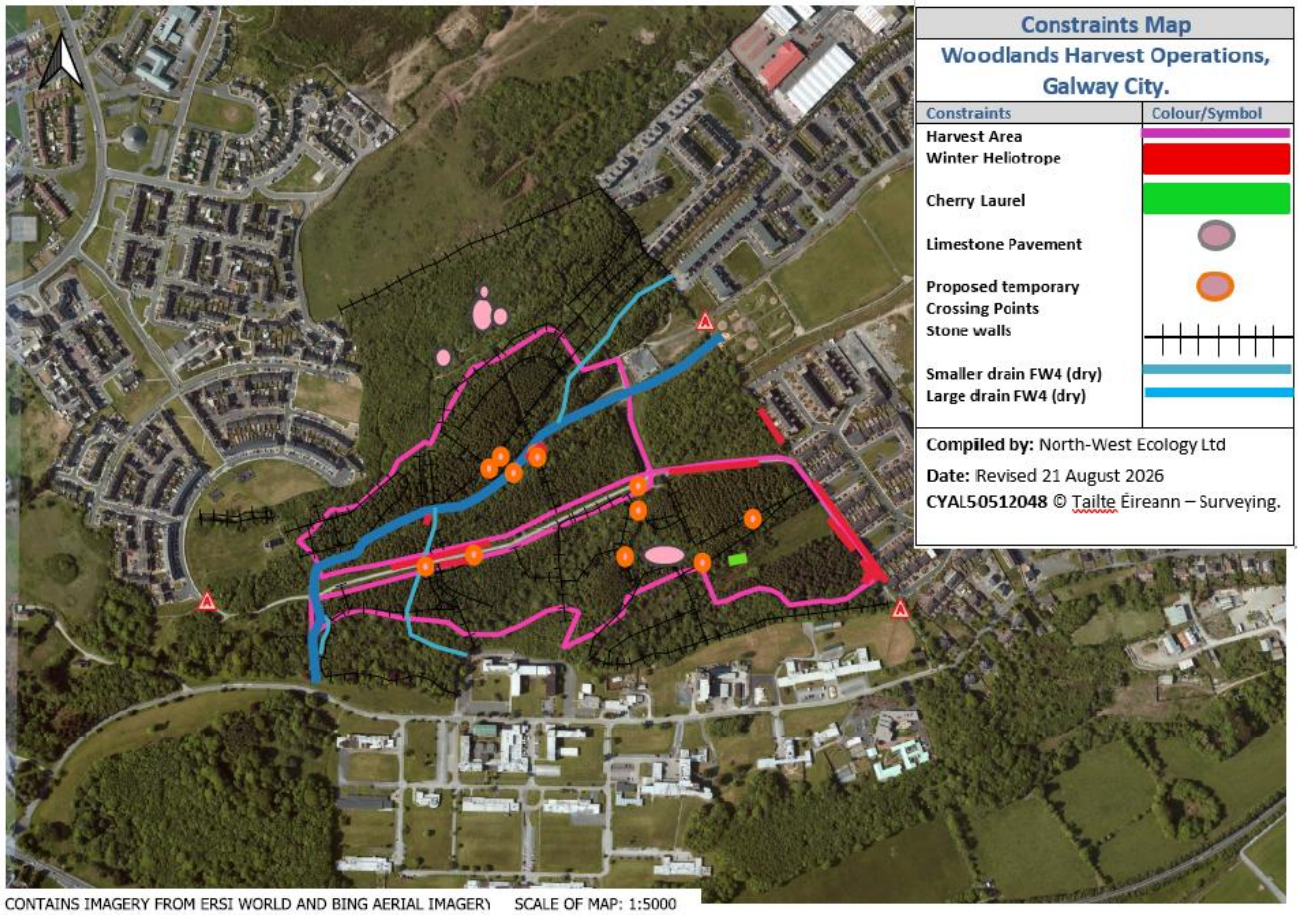
Appendices: Appendix A - Ecological Constraints Map



Appendix B – Ecological Mitigation Schedule

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
EM1	All ecological receptors	Environmental damage through lack of awareness	An ecological toolbox talk shall be undertaken prior to commencement of works to ensure all personnel are familiar with ecological constraints, exclusion areas and mitigation requirements.	Pre-commencement	Contractor / Ecologist	Toolbox talk record	General
EM2	Sensitive habitats	Habitat damage through machinery movement	Ecological constraints shall be identified on the Ecological Constraints Map. Machinery shall remain within designated operational areas and extraction routes wherever practicable. Unnecessary disturbance outside the approved harvesting design shall be avoided.	Pre-works & Throughout	Contractor	Site inspection	General
EM3	Limestone pavement (ER2)	Physical damage to pavement and associated flora	No machinery access, timber stacking, spoil deposition, refuelling or material storage shall occur within mapped limestone pavement. Limestone pavement shall remain outside the operational footprint in accordance with the approved harvesting design.	Throughout	Contractor	Site inspection	EPMS-02
EM4	Limestone pavement	Soil deposition and hydrological alteration	Brash, soil and forestry residues shall not be deposited on limestone pavement. Existing drainage patterns across karst features shall not be modified.	Throughout	Contractor	Site inspection	EPMS-02

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
EM5	Surface waters	Sedimentation and pollution	Aquatic buffer zones shall be maintained in accordance with current DAFM Forestry Standards & Environmental Requirements and any conditions attached to the felling licence. No unnecessary disturbance shall occur within aquatic buffer zones.	Throughout	Contractor	Site inspection	EPMS-05
EM6	Watercourses	Fuel or chemical pollution	Refuelling, fuel storage, servicing and chemical storage shall not occur within aquatic buffer zones or within 50 m of the aquatic zone, whichever provides the greater level of protection. Spill kits shall be available on site at all times.	Throughout	Contractor	Site inspection	EPMS-05
EM7	Watercourse crossings	Bed and bank disturbance	Existing crossings shall be utilised where practicable. Temporary crossings shall be restricted to the designated operational crossing points identified on the current Harvest Operations Plan. The designated crossing associated with the mapped aquatic/drainage constraint shall be implemented in accordance with EPMS-05 and shall minimise disturbance to the bed, banks and adjoining ground, maintain the existing drainage function and prevent sediment or pollutants entering the drainage feature. Temporary crossing materials shall be	As required	Contractor	Site inspection	EPMS-05

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
			removed following completion of the works and banks/approaches reinstated where necessary.				
EM8	Heritage stone walls	Structural damage	Machinery shall maintain the specified operational stand-off distances wherever practicable. Timber shall not be stacked against heritage stone walls. Temporary crossings shall be restricted to the designated operational crossing points identified within the harvesting design and undertaken in accordance with EPMS-03.	Throughout	Contractor	Site inspection	EPMS-03
EM9	Invasive non-native plant species	Spread of invasive species	Mapped invasive species shall be identified on the Invasive Species Management Map. Biosecurity measures shall be implemented in accordance with EPMS-01. Machinery leaving affected areas shall be cleaned before working elsewhere on site.	Throughout	Contractor	Biosecurity records	EPMS-01
EM10	Invasive species	Colonisation of disturbed ground	Disturbed ground within or adjacent to mapped invasive species infestations shall be managed to minimise the further spread of invasive species in accordance with EPMS-01.	Throughout	Contractor	Site inspection	EPMS-01
EM11	Retained broadleaf woodland	Root damage and soil compaction	Broadleaved woodland shall be retained in accordance with the approved harvesting design, with the exception of dead ash affected by ash dieback where removal is required for	Throughout	Contractor	Site inspection	EPMS-04

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
			operational or public safety reasons. Machinery access outside designated operational areas shall be avoided wherever practicable.				
EM12	Veteran and retained trees	Mechanical damage	Veteran trees and retained broadleaved habitat trees shall be protected from stem, canopy and root damage. Timber shall not be stacked against retained trees.	Throughout	Contractor	Site inspection	EPMS-04
EM13	Nesting birds	Disturbance or destruction of nests (works will be outside the breeding season)	Where works are proposed during the bird breeding season, nesting bird checks shall be undertaken where required by a suitably qualified ecologist immediately prior to vegetation clearance. Should an active nest be identified, works shall cease within the immediate area until breeding has concluded or appropriate ecological advice has been obtained.	Seasonal	Ecologist / Contractor	Ecologist inspection	Wildlife Acts
EM14	Protected fauna	Disturbance of protected species	Should evidence of protected species or previously unidentified ecological features be encountered during works, operations shall cease within the immediate area, the Site Manager shall be notified and the Client shall seek ecological advice before works recommence.	Throughout	Contractor	Incident record	General
EM15	Fuels, oils and chemicals	Pollution	Fuels, lubricants and chemicals shall be stored in bunded containers on stable ground outside environmentally sensitive areas. Spill response	Throughout	Contractor	Site inspection	EPMS-05

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
			equipment shall be maintained adjacent to storage locations.				
EM16	Waste management	Pollution and habitat degradation	All waste arising from the works shall be removed from site and disposed of at appropriately authorised facilities. No waste shall be deposited within woodland habitats, limestone pavement or aquatic buffer zones.	Throughout	Contractor	Site inspection	General
EM17	Environmental incidents	Environmental damage	Any accidental pollution event, damage to ecological features or non-compliance with mitigation measures shall be reported immediately to the Site Manager. The Client shall seek ecological advice where required. Appropriate remedial measures shall be implemented without delay.	Throughout	Contractor	Incident records	General
EM18	Ecological monitoring	Failure to identify or address ecological issues during sensitive operations	Ecological monitoring shall be undertaken by the Project Ecologist during agreed site visits in accordance with the scope of the appointment. Additional site visits, monitoring or ecological advice arising from unforeseen ecological issues, incidents or changes to the approved harvesting design may require separate instruction by the Client.	As required	Client	Monitoring records	General

Ref.	Ecological Receptor	Potential Impact	Ecological Mitigation Measure	Timing	Responsibility	Verification	Reference
EM19	Site completion	Residual environmental impacts	Temporary protection measures, temporary site fencing, signage and temporary crossing structures shall be removed following completion of the works unless otherwise agreed with the Client. Disturbed ground shall be reinstated where required.	Completion	Contractor	Final inspection	General
EM20	Public access and wildlife movement	Temporary restriction of access and alteration of wildlife movement	Temporary site fencing shall be erected around active harvesting areas for the duration of the works (approximately three months) to exclude public access. No night-time working or artificial lighting shall be undertaken. Fencing shall be removed following completion of the works.	Throughout	Contractor	Site inspection	General

Notes

1. All mitigation measures shall be read in conjunction with the relevant Ecological Method Statements (EPMS-01 to EPMS-05), Environmental Management Plan (EMP), DAFM Forestry Standards and Environmental Requirements, and any conditions attached to the applicable felling licence.
2. Where no specific setback distance is prescribed by legislation or DAFM guidance, ecological exclusion zones shall be determined by the Project Ecologist based on the sensitivity of the ecological feature, proposed operations and prevailing site conditions.
3. Nothing in this schedule removes the responsibility of the Contractor to comply with all relevant environmental legislation, licence conditions or site-specific environmental protection measures.

Appendix C- Photographic Record (note: this is based on the July 2026 survey)

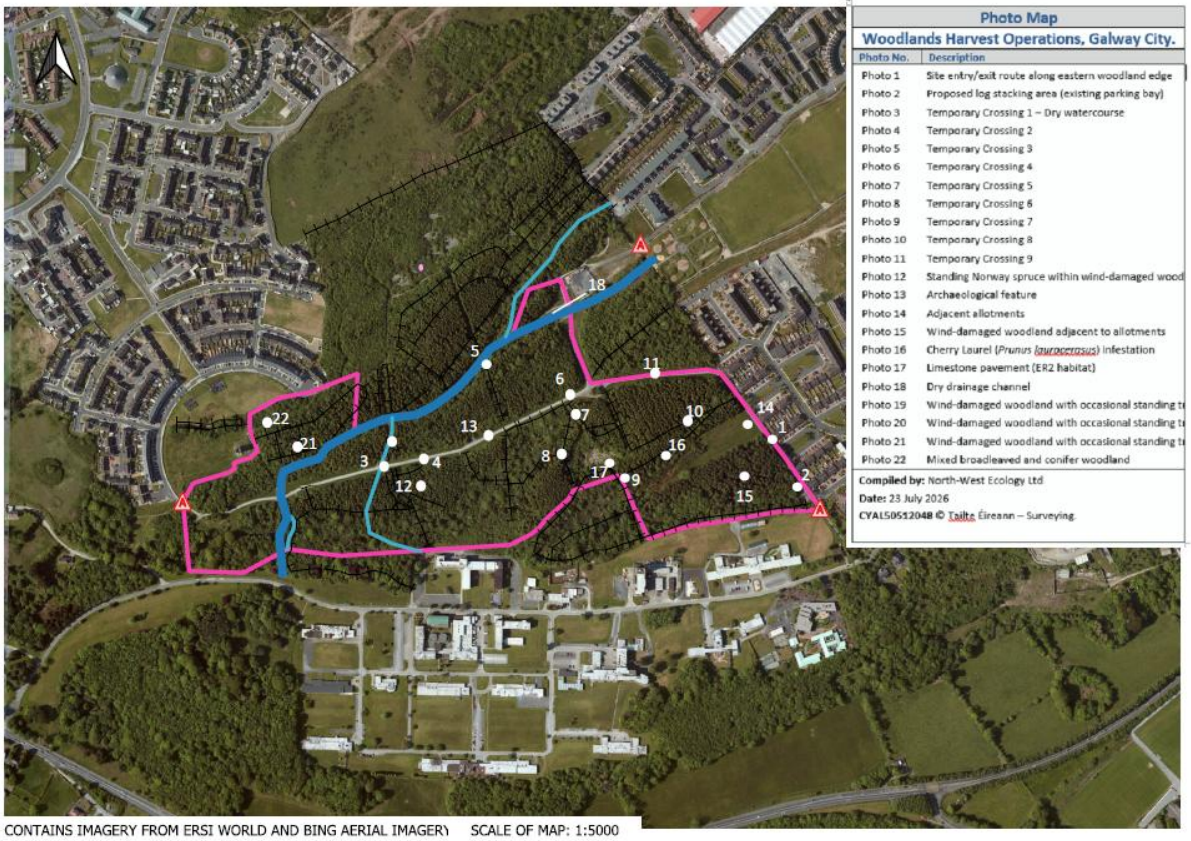


Photo Map

Woodlands Harvest Operations, Galway City.

Photo No.	Description
Photo 1	Site entry/exit route along eastern woodland edge
Photo 2	Proposed log stacking area (existing parking bay)
Photo 3	Temporary Crossing 1 – Dry watercourse
Photo 4	Temporary Crossing 2
Photo 5	Temporary Crossing 3
Photo 6	Temporary Crossing 4
Photo 7	Temporary Crossing 5
Photo 8	Temporary Crossing 6
Photo 9	Temporary Crossing 7
Photo 10	Temporary Crossing 8
Photo 11	Temporary Crossing 9
Photo 12	Standing Norway spruce within wind-damaged wood
Photo 13	Archaeological feature
Photo 14	Adjacent allotments
Photo 15	Wind-damaged woodland adjacent to allotments
Photo 16	Cherry Laurel (*Prunus laurocerasus*) Infestation
Photo 17	Limestone pavement (ER2 habitat)
Photo 18	Dry drainage channel
Photo 19	Wind-damaged woodland with occasional standing t
Photo 20	Wind-damaged woodland with occasional standing t
Photo 21	Wind-damaged woodland with occasional standing t
Photo 22	Mixed broadleaved and conifer woodland

Compiled by: North-West Ecology Ltd
Date: 23 July 2026
CYAL50512048 © Tailte Éireann – Surveying

Photo 1. Entry/ Exit route to east edge

Photo 2. Proposed Log stacking area (existing parking bay)

Photo 3. Temporary crossing 1 at dry watercourse

Photo 4. Temporary crossing 2

Photo 5. Crossing point 3

Photo 6. Temporary crossing 4

Photo 7. Temporary crossing 5

Photo 8. Temporary crossing 6

Photo 9. Temporary crossing 7

Photo 10. Temporary crossing 8

Photo 11. Temporary crossing 9

Photo 12. Standing Norway Spruce in wind damaged area

Photo 13. Archaeology

Photo 14. Allotments

Photo 15. Wind Damage by allotments

Photo 16. Cherry laurel (Prunus laurocerasus) invasive

Photo 17. Limestone pavement

Photo 18. Dry Drain

Photo 19. Wind damage occasional standing trees & deadwood

Photo 20. Wind damage occasional standing trees & deadwood

Photo 21. Wind damage occasional standing trees & deadwood

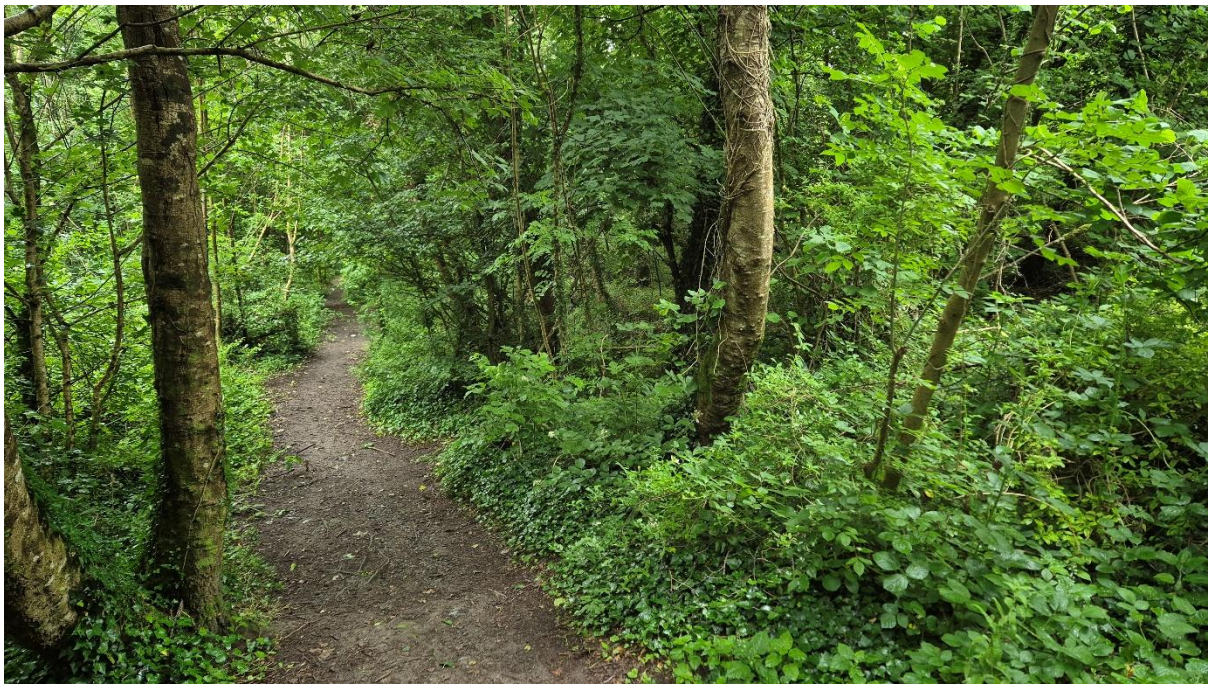


Photo 22. Mixed broadleaf and conifer woodland

Appendix D-Ecological Protection Method Statements EPMS

The following Ecological Protection Method Statements (EPMS) establish the environmental protection measures to be implemented during the proposed woodland management operations. The documents form part of the ecological mitigation strategy for the project and should be read in conjunction with the Ecological Mitigation Schedule (Appendix C), Ecological Constraints Map (Appendix B) and Environmental Management Plan.

The purpose of these Method Statements is to ensure that forestry operations are undertaken in a manner that avoids or minimises impacts on protected habitats, protected species, water quality and cultural heritage, while facilitating the safe implementation of woodland management works. The Method Statements are intended for use by the Client, Contractor, Site Manager, Ecological Clerk of Works and other personnel involved in the planning and implementation of the works

EPMS-01: Invasive Species Management

1. Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to prevent the introduction, spread and establishment of invasive non-native plant species (INNS) during the proposed woodland management operations at Merlin Park Woods.

Implementation of this Method Statement will minimise the risk of accidental spread arising from forestry operations, ensure compliance with relevant environmental legislation and support the protection of native habitats and biodiversity.

This Method Statement provides ecological mitigation measures to inform the implementation of the harvesting operations. Responsibility for implementation of these measures rests with the Contractor and Client. Nothing within this Method Statement removes or alters the Contractor's obligations under the Forestry Act 2014, Wildlife Acts 1976–2023, the Birds and Natural Habitats Regulations 2011–2025, the conditions of the felling licence, or applicable health and safety legislation.

2. Scope

This Method Statement applies to all forestry operations undertaken within the project area, including:

- Tree felling and harvesting;
- Timber extraction;
- Timber stacking and loading;
- Machinery access and turning areas;
- Refuelling and servicing areas;
- Ground disturbance;
- Temporary crossings;

- Reinstatement works; and
- Any activities undertaken within or adjacent to mapped invasive species infestations.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3. Relevant Legislation and Guidance

Legislation

- Regulation (EU) No. 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Wildlife Acts 1976–2023.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
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- National Biodiversity Data Centre (NBDC) guidance on invasive species.
- National Parks and Wildlife Service (NPWS) guidance where applicable.
- Best practice guidance for biosecurity during forestry operations.
- Regulation (EU) No. 1143/2014 on the prevention and management of the introduction and spread of invasive alien species.
- European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).
- Transport Infrastructure Ireland (2020). *The Management of Invasive Alien Plant Species on National Roads – Technical Guidance (GE-ENV-01105).*
- National Parks and Wildlife Service (2023). *Ireland's Invasive Alien Species Soil and Stone Pathway Action Plan 2023–2027.*

4. Ecological Receptors

The ecological receptors addressed by this Method Statement include all invasive non-native plant species recorded during the ecological survey together with any additional infestations identified during implementation of the works.

Potential species include, but are not limited to:

- Japanese Knotweed (*Reynoutria japonica*);
- Himalayan Balsam (*Impatiens glandulifera*);
- Giant Hogweed (*Heracleum mantegazzianum*);
- Cherry Laurel (*Prunus laurocerasus*);
- Rhododendron (*Rhododendron ponticum*);
- Montbretia (*Crocosmia × crocosmiiflora*); and
- Other invasive species identified during site inspections.

Mapped infestations are shown on the Invasive Species Map (Appendix B).

4.1 Project-Specific Considerations – Merlin Park Woods

Winter Heliotrope (*Petasites pyrenaicus*)

Winter Heliotrope (*Petasites pyrenaicus*) has been identified within the Merlin Park Woods project area and is shown on the Invasive Species Map (Appendix B).

Figure 4.1.1 Image of Winter Heliotrope (Petasites pyrenaicus)

Although Winter Heliotrope is not a regulated invasive species under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011–2025, it is a vigorous non-native perennial capable of extensive vegetative spread through rhizome fragmentation to approximately 30cm depth. Forestry operations involving ground disturbance, machinery movement or the inadvertent redistribution of contaminated soils have the potential to facilitate its spread within the site.

The principal ecological objective is to prevent the harvesting operations from facilitating further spread of the species through disturbance and redistribution of rhizome-bearing soil.

The following measures shall be implemented throughout the works:

- All known infestations shall be shown on the Ecological Constraints Map and communicated to all site personnel during the pre-commencement ecological briefing.
- Machinery movements shall be confined to designated extraction routes and crossing points wherever practicable to minimise the overall area of disturbance.
- Where machinery movements through Winter Heliotrope infestations are unavoidable, temporary ground protection shall be installed before operations commence. This shall comprise of light cutting back of surface vegetation and the laying of load-bearing ground protection appropriate to the machinery and ground conditions such as Terram (or equivalent geotextile separation layer) overlain by stone in the turning area and log stacking areas and at temporary crossing points.
- Existing vegetation and underlying soil shall not be scraped or stripped prior to installation of the protection system, thereby avoiding unnecessary disturbance of the rhizome network.
- Turning bays, timber stacking areas, refuelling locations and material storage areas shall, wherever practicable, be located outside dense infestations. Where this cannot reasonably be achieved, the area shall first be protected using an approved temporary ground protection system such as Terram to minimise disturbance of rhizome-bearing soil.
- Excavation or unnecessary disturbance of soils supporting Winter Heliotrope shall be avoided. Where significant ground disturbance within mapped infestations becomes necessary and falls outside the approved harvesting design, the Contractor shall notify the Site Manager. The Client may seek additional ecological advice where considered necessary.
- Soil, vegetation, brash or other material containing rhizomes shall not be transferred to un-infested parts of the woodland.
- Machinery shall, where operationally practicable, progress from areas with little or no infestation towards more heavily infested areas, reducing the likelihood of transporting rhizome material into clean woodland.
- On completion of operations, temporary ground protection shall be removed carefully to avoid lifting or dragging rhizome-bearing soil. Mats and protective materials shall be inspected and cleaned before removal from the site.
- Forestry machinery, tracks, wheels, undercarriages and attachments shall be inspected and cleaned before leaving infested working areas or exiting the site to minimise the risk of transporting soil or rhizome fragments.
- Following completion of the harvesting operations, crossing points, extraction routes, turning areas and timber stacking locations shall be inspected for evidence of any new

establishment of Winter Heliotrope. Any significant spread attributable to the works shall be reviewed by the Project Ecologist and appropriate remedial measures implemented where necessary.

Cherry Laurel (*Prunus laurocerasus*)

Cherry Laurel has also been recorded within Merlin Park Woods and is shown on the Invasive Species Management Map (Appendix B). This evergreen shrub forms dense stands that suppress native ground flora and inhibit natural woodland regeneration through heavy shading. Although the proposed harvesting operations are not intended as an invasive species control programme, unnecessary disturbance of Cherry Laurel stands should be avoided. Machinery movements should be confined to designated operational areas and extraction routes to minimise the spread of seeds or vegetative material. Cut material shall not be intentionally redistributed into previously unaffected areas of the woodland.

5. Environmental Risks

Forestry operations may facilitate the spread of invasive species through:

- Movement of contaminated soils;
- Transportation of plant fragments;
- Machinery tracks and tyres;
- Timber extraction;
- Stock-piling of contaminated material;
- Drainage pathways;
- Disturbance of previously stable infestations; and
- Colonisation of newly disturbed ground.

Failure to adequately manage invasive species may result in ecological damage, increased management costs and non-compliance with environmental legislation.

6. Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- All known infestations shall be clearly identified on the Ecological Constraints Map.
- Site personnel shall receive an ecological toolbox talk highlighting the location of invasive species and associated biosecurity requirements.
- Machinery operators shall be made aware of exclusion areas before entering the site.

6.2 Operational Controls

The following measures shall be implemented throughout the works:

- Avoid disturbance of invasive plant species wherever practicable.
- Machinery movements within mapped infestations shall be minimised wherever practicable and confined to designated operational routes where access cannot reasonably be avoided. Timber, brash or spoil shall not be stored within invasive species infestations.
- Contaminated soils shall not be excavated or redistributed unless undertaken as part of an approved management strategy.
- Vegetation arising from invasive species management shall be handled and disposed of in accordance with current legislation and recognised best practice.
- Any previously unidentified infestations encountered during the works shall be immediately reported to the Site Manager.

6.3 Biosecurity

To minimise the risk of spread:

- Machinery operating within infested areas shall be inspected and cleaned before moving to unaffected parts of the site.
- Soil adhering to machinery shall be removed before leaving contaminated areas.
- Plant material shall not be transported through unaffected habitats unless appropriately contained.
- Disturbance of bare ground shall be minimised.
- Disturbed ground shall be reinstated as soon as practicable to reduce opportunities for colonisation.

6.4 Discovery of Additional Infestations

Where previously unrecorded invasive species are encountered:

- Works shall cease within the immediate area.
- The infestation shall be marked and recorded.
- The Site Manager shall be notified. The Client may seek additional ecological advice where appropriate before works recommence.
- Appropriate management measures shall be agreed before works recommence.

7. Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor and Site Manager. The Project Ecologist shall undertake ecological inspections only in accordance with the agreed scope of appointment. Additional ecological attendance, monitoring or reporting arising from unforeseen ecological issues or changes to the approved harvesting design may require separate instruction by the Client.

8. Incident Response

Should accidental spread of invasive species occur:

- Stop works within the affected area.
- Prevent further movement of machinery or contaminated material.
- Notify the Site Manager immediately.
- Record the location and extent of the incident.
- The Contractor shall implement appropriate remedial measures in consultation with the Client. Additional ecological advice may be sought where necessary.
- Record all corrective actions within the site environmental records.

9. Responsibilities

Contractor

The Contractor shall:

- Implement all mitigation measures contained within this Method Statement.
- Ensure all personnel receive an ecological toolbox talk.
- Prevent unnecessary disturbance of invasive species.
- Report any incidents immediately.
- Maintain appropriate biosecurity procedures throughout the works.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

10. Completion Criteria

The works shall be considered compliant with this Method Statement where:

- Biosecurity measures contained within this Method Statement have been implemented throughout the works and no significant spread of invasive species attributable to the harvesting operations has been identified.
- Existing infestations have not been unnecessarily disturbed.
- No contaminated soils or vegetation have been redistributed.

- Biosecurity measures have been implemented throughout the project.
- All ecological incidents have been appropriately managed and recorded.

EPMS-02: Limestone Pavement Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect limestone pavement and associated habitats from direct and indirect impacts arising from forestry operations.

Limestone pavement is an Annex I habitat under Council Directive 92/43/EEC (Habitats Directive) where it occurs as a qualifying habitat within European sites and is recognised nationally as a habitat of high ecological and geological importance. The habitat is highly susceptible to irreversible damage from machinery trafficking, soil compaction, brash deposition and alterations to natural drainage patterns.

This Method Statement establishes the environmental protection measures necessary to avoid damage to limestone pavement during forestry operations.

2.0 Scope

This Method Statement applies to all activities undertaken within or adjacent to limestone pavement, including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Temporary compounds;
- Refuelling;
- Ground protection measures;
- Drainage works;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive).

- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Wildlife Acts 1976–2023.
- Forestry Act 2014.

Guidance

Department of Agriculture, Food and the Marine (DAFM). *Forestry Standards Manual*.

Department of Agriculture, Food and the Marine (DAFM). *Environmental Requirements for Afforestation*.

European Parliament and Council. Regulation (EU) No. 1143/2014 on the Prevention and Management of the Introduction and Spread of Invasive Alien Species.

European Communities (Birds and Natural Habitats) Regulations 2011–2025.

Browne, A. & Fuller, J. (2009). *Merlin Park Woodland Habitat Survey and Management Plan.* Final Report prepared for Galway City Council and The Heritage Council. November 2009.

National Biodiversity Data Centre. *Invasive Species Ireland* guidance and distribution datasets.

National Parks and Wildlife Service. Relevant guidance on invasive non-native species management.

Wildlife Acts 1976–2023.

Tailte Éireann. (2026). *GeoHive Historic Map Viewer: Historic First Edition and Last Edition 6-inch Ordnance Survey Mapping.* Available at: GeoHive (Accessed: June/ July 2026).

Teesdale, R. (2026). Personal communication. National Parks and Wildlife Service. Email correspondence dated 17 July 2026]

National Parks and Wildlife Service (NPWS)

National Biodiversity Data Centre (NBDC)

surveys undertaken in July 2026

4.0 Ecological Receptors

This Method Statement applies to:

- Limestone pavement (ER2);
- Limestone outcrops;
- Grikes and clints;
- Karst features;
- Associated bryophyte, fern and vascular plant communities;
- Associated invertebrate habitats;
- Groundwater recharge features where present.

4.1 Project-Specific Considerations – Merlin Park Woods

Limestone pavement represents one of the principal ecological constraints within Merlin Park Woods. Areas of exposed limestone pavement (ER2) occur beneath the woodland canopy and support specialised vegetation characteristic of this Annex I habitat. Owing to the presence of tree cover and accumulated leaf litter, sections of limestone pavement may not always be readily visible during forestry operations.

The harvesting design has been developed to avoid all known areas of limestone pavement, as identified on the habitat map and Ecological Constraints Map. No harvesting operations, machinery movements, timber extraction or timber stacking shall take place within these mapped areas.

All known limestone pavement shall be clearly identified during the pre-commencement ecological briefing, and machine operators shall be made aware of its location before works commence.

Where harvesting operations are undertaken adjacent to limestone pavement, machinery shall remain within designated extraction routes and operational areas to avoid accidental encroachment onto the habitat. Should previously unrecorded limestone pavement or exposed limestone features be encountered during the works, operations shall cease within the immediate area and the Site Manager shall be consulted before works recommence.

The integrity of limestone pavement shall be maintained throughout the works. No excavation, soil deposition, brash accumulation, timber stacking or other activities likely to damage or obscure the habitat shall be permitted within mapped limestone pavement areas.

5.0 Environmental Risks

Potential impacts include:

- Crushing of pavement surface;
- Damage to clints and grikes;
- Soil compaction;
- Infilling of fissures with soil or brash;
- Alteration of natural drainage pathways;
- Damage to specialist limestone flora;
- Disturbance of associated invertebrate communities;
- Long-term degradation of habitat condition.

Many of these impacts are irreversible.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- Limestone pavement shall be accurately identified and mapped.

- Sensitive areas shall be clearly marked where operations occur nearby.
- All personnel shall receive an ecological toolbox talk.
- Extraction routes shall be planned to avoid limestone pavement wherever practicable.
- Timber stacking areas shall be located away from limestone pavement.

6.2 Operational Controls

During forestry operations:

- The design of harvesting operations, extraction routes and timber stacking areas shall follow the principle of avoidance, with limestone pavement excluded from the operational footprint wherever reasonably practicable
- Machinery shall not enter limestone pavement except where specifically authorised following ecological assessment.
- Timber shall not be stacked on limestone pavement.
- Brash shall not be intentionally deposited on limestone pavement.
- Spoil, soils or waste materials shall not be stored on limestone pavement.
- Existing drainage patterns shall not be modified.
- Temporary compounds shall not be established on limestone pavement.
- Refuelling shall not occur on limestone pavement.
- Any accidental damage shall be reported immediately.

Mapped limestone pavement shall remain outside the approved operational footprint as described in the Harvest Management Plan. Machinery access, timber stacking, spoil deposition, refuelling and material storage shall not occur on limestone pavement. Operations adjacent to limestone pavement shall be undertaken with due care to avoid encroachment or incidental damage.

6.3 Ground Protection

Where there is a risk of indirect damage to limestone pavement:

- Existing extraction routes and designated operational areas shall be used wherever practicable.
- Machinery movements shall be minimised and repeated trafficking adjacent to limestone pavement avoided where reasonably practicable.
- Low ground pressure machinery shall be used where appropriate to ground conditions.
- Ground protection measures shall be implemented where identified within the approved harvesting design or where considered necessary by the Contractor to prevent damage to limestone pavement.

6.4 Discovery of Previously Unrecorded Pavement

Should previously unrecorded limestone pavement be encountered during the works:

- Operations shall cease within the immediate area.
- The feature shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Any amendments to ecological constraints shall be documented where required.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should accidental damage to limestone pavement occur:

- Stop works within the affected area.
- Prevent further machinery access until the area has been secured.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the incident, including photographs where practicable.
- The Client shall determine, in consultation with relevant specialists where required, any appropriate remedial actions before works recommence.
- All corrective actions shall be recorded within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of limestone pavement constraints prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary disturbance to limestone pavement.

- Report any incidents or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-03: Heritage Stone Wall Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect heritage stone walls and their associated ecological features from direct and indirect impacts arising from forestry operations.

Historic stone walls are important elements of the landscape, providing both cultural heritage value and ecological function. They support a diverse assemblage of mosses, lichens, ferns and higher plants, provide refugia for invertebrates and small vertebrates, and act as ecological corridors linking woodland habitats.

This Method Statement establishes measures to avoid structural damage, maintain ecological integrity and preserve the function of heritage stone walls throughout the proposed woodland management operations.

2.0 Scope

This Method Statement applies to all forestry operations undertaken within or adjacent to heritage stone walls, including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Turning areas;
- Temporary compounds;
- Ground protection works;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- National Monuments Acts 1930–2014 (where applicable).
- Wildlife Acts 1976–2023.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- National Parks and Wildlife Service. Relevant guidance on invasive non-native species management.
- Tailte Éireann. (2026). GeoHive Historic Map Viewer: Historic First Edition and Last Edition 6-inch Ordnance Survey Mapping. Available at: GeoHive (Accessed: June/ July 2026).
- National Parks and Wildlife Service (NPWS) guidance.
- The Heritage Council – guidance on traditional stone walls.
- Project Ecological Constraints Map.

4.0 Ecological Receptors

Heritage stone walls should be regarded as multifunctional landscape features, contributing to biodiversity, ecological connectivity, cultural heritage and landscape character.

This Method Statement applies to:

- Historic dry-stone walls;
- Mortared stone walls where present;
- Associated boundary banks;
- Wall-top vegetation;

- Mosses, liverworts and lichens;
- Fern communities;
- Invertebrate habitat;
- Habitat connectivity provided by stone walls.

4.1 Project-Specific Considerations – Merlin Park Woods

A network of heritage stone walls traverses the operational area. The harvesting design incorporates 5 m operational exclusion zones adjacent to these features. These exclusion zones shall be maintained throughout the works and clearly identified to machine operators prior to commencement to ensure adequate protection of both the structural integrity and ecological function of the walls.

All heritage stone walls shall be identified on the Ecological Constraints Map and considered ecological exclusion features during operational planning.

Temporary Stone Wall Crossings

Temporary crossings of existing stone wall remains are restricted to the designated operational crossing points identified on the current harvesting plan. Crossings shall be limited to the minimum width and duration necessary for harvesting operations and no additional breaches or crossings shall be created elsewhere within the site. Following completion of the works, the crossing locations shall be inspected with Galway City Council to determine whether any remedial works are required.

5.0 Environmental Risks

Potential impacts include:

- Collapse or displacement of stonework;
- Damage from machinery contact;
- Pressure from stacked timber;
- Soil compaction adjacent to walls;
- Loss of wall-top vegetation;
- Damage to mosses, lichens and fern communities;
- Fragmentation of ecological corridors;
- Disturbance of fauna utilising wall crevices.

Damage to heritage stone walls is often permanent and may require specialist restoration.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- All heritage stone walls shall be identified on the Ecological Constraints Map.

- Walls adjacent to operational areas shall be identified from the Ecological Constraints Map and harvesting plans and protected in accordance with the specified exclusion measures
- Machinery operators shall be informed of wall locations during the ecological toolbox talk.
- Extraction routes and stacking areas shall be designed to avoid stone walls wherever practicable.

6.2 Operational Controls

During forestry operations:

- Machinery shall avoid contact with heritage stone walls wherever practicable.
- Timber, brash, spoil and machinery shall not be stored against or on heritage stone walls.
- Turning manoeuvres adjacent to heritage stone walls shall be minimised.
- Temporary crossings of stone wall remains shall be restricted to the designated operational crossing points identified within the approved harvesting design.
- Should wall stability be compromised during operations, works shall cease immediately within the affected area and the Site Manager shall be notified.

The approved harvesting design and extraction routes have been prepared to avoid impacts on heritage stone walls wherever reasonably practicable. Operational stand-off distances shown on the approved harvesting plans and Ecological Constraints Map shall be maintained throughout the works.

6.3 Vegetation Management

Vegetation associated with heritage stone walls shall be retained wherever practicable.

Routine removal of mosses, lichens, ferns or wall-top vegetation shall be avoided unless necessary for operational safety or implementation of the approved harvesting design.

Trees growing directly from stone wall structures shall be managed with due regard to both wall stability and operational safety, recognising that removal may itself destabilise the structure.

6.4 Discovery of Previously Unrecorded Heritage Features

Should previously unrecorded stone walls or associated heritage features be encountered during the works:

- Operations shall cease within the immediate area.
- The feature shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological or heritage advice where appropriate before works recommence within the affected area.
- Any amendments to ecological constraints shall be documented where required.

7.0 Monitoring

- Compliance with this Method Statement shall remain the responsibility of the Contractor.
- The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.
- Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should accidental damage to a heritage stone wall occur:

- Stop works within the affected area.
- Prevent further disturbance or machinery access.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the damage, including photographs where practicable.
- Protect any displaced stonework from further disturbance where it is safe to do so.
- The Client shall determine, in consultation with relevant specialists where required, any appropriate remedial actions before works recommence.
- Where damage affects a feature of archaeological or architectural significance, the relevant statutory authority shall be consulted where required.
- Record all corrective actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of heritage stone wall constraints prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary disturbance to heritage stone walls.
- Report any accidental damage or previously unidentified heritage features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.

- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-04: Broadleaf Tree Retention and Woodland Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect retained broadleaf woodland, individual trees and associated woodland habitats from damage during forestry operations.

Retained broadleaf trees contribute significantly to the ecological integrity, structural diversity and long-term resilience of woodland ecosystems. Mature trees, veteran trees, standing deadwood and naturally regenerating broadleaf woodland provide important habitat for birds, bats, invertebrates, fungi and epiphytic flora while contributing to woodland connectivity and landscape character.

This Method Statement establishes measures to ensure that retained woodland is protected throughout the implementation of the proposed woodland management operations.

2.0 Scope

This Method Statement applies to all forestry operations undertaken within or adjacent to retained broadleaf woodland, including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Turning areas;
- Ground protection works;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Council Directive 92/43/EEC (Habitats Directive).
- Wildlife Acts 1976–2023.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- National Parks and Wildlife Service (NPWS) guidance.
- Project Ecological Constraints Map.

4.0 Ecological Receptors

This Method Statement applies to:

- Retained broadleaf woodland;
- Individual retained trees;
- Veteran trees;

4.1 Project-Specific Considerations – Merlin Park Woods

Merlin Park Woods contains mature broadleaved woodland that forms an integral component of the site's biodiversity, landscape character and recreational value. Retained trees include mature specimens, habitat trees and woodland edge features that contribute to ecological connectivity throughout the woodland. Particular care shall be taken to avoid unnecessary damage to retained trees during harvesting, extraction and timber handling operations.

Trees identified for ecological retention shall be shown on the Ecological Constraints Map and protected throughout the works.

The following project-specific measures shall apply:

- **Retained Habitat Trees:** Broadleaved trees identified for retention shall not be felled or damaged during harvesting operations. Machinery access, timber extraction and stacking shall be planned to avoid impacts on retained trees and their root protection areas wherever practicable.
- **Veteran Trees:** All veteran broadleaved trees shall be retained unless they present an unacceptable health and safety risk. Standing or fallen veteran ash exhibiting advanced ash dieback and considered structurally unsafe may require removal following assessment by the Site arborist. Where removal is necessary, opportunities to retain sections of the trunk or deadwood on site for biodiversity shall be considered where this does not present a safety risk.

- **Red Squirrel Dreys:** Trees containing confirmed red squirrel dreys shall be retained wherever practicable. As dreys may only become apparent during harvesting operations, all machine operators and chainsaw operators shall remain vigilant for previously unidentified dreys. If an active or suspected drey is encountered, works shall cease within the immediate area and the Project Ecologist shall be notified to determine appropriate protection measures before works recommence.
- **Conifer Retention:** Storm-damaged and standing conifers are proposed for removal as part of the harvesting operations. However, individual conifers identified during operations as supporting active red squirrel dreys, bat roost features or other significant ecological features shall be retained where it is safe and practicable to do so. Where such features are identified, the Site Manager shall notify the Project Ecologist in accordance with the agreed scope of appointment. Additional ecological attendance outside the agreed scope may require separate instruction by the Client.
- **Unexpected Ecological Features:** Should previously unidentified habitat trees, veteran trees, red squirrel dreys, bat roost features or other significant ecological features be encountered during the works, operations shall cease within the immediate vicinity until the feature has been assessed by the Project Ecologist and appropriate mitigation measures agreed.

5.0 Environmental Risks

Potential impacts include:

- Stem damage from machinery;
- Root damage and soil compaction;
- Damage to low branches and tree canopies;
- Damage arising from timber stacking;
- Changes to woodland microclimate;
- Loss of natural regeneration;
- Disturbance of habitats utilised by birds, bats and invertebrates;
- Introduction of disease through unnecessary injury.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- Trees identified for retention shall be clearly marked where necessary.
- Extraction routes shall be planned to minimise interaction with retained woodland.
- Machinery operators shall receive an ecological toolbox talk highlighting retained woodland constraints.
- Timber stacking areas shall be located away from retained trees wherever practicable.

6.2 Operational Controls

The objective of the works is retention of live broadleaved trees and broadleaved woodland. Localised incidental disturbance to scrub, natural regeneration, understorey vegetation or occasional small broadleaved stems may nevertheless occur where unavoidable during directional felling, timber extraction or essential machinery movements. Such disturbance shall be kept to the minimum reasonably practicable and shall not be used to facilitate unnecessary clearance of broadleaved vegetation.

During forestry operations:

- Retained trees shall not be felled or damaged.
- Machinery shall avoid unnecessary entry into retained woodland.
- Timber shall not be stacked against retained trees.
- Refuelling, servicing and chemical storage shall not occur beneath retained tree canopies.
- Soil disturbance within root protection areas shall be avoided wherever practicable.
- Repeated machinery trafficking adjacent to retained trees shall be minimised.
- Harvesting operations shall be planned to avoid damage to retained woodland.

The design of forestry operations shall follow the principle of avoidance, with retained woodland excluded from the operational footprint wherever reasonably practicable.

6.3 Discovery of Additional Ecological Features

Should retained trees containing bat roost features, active bird nests or other previously unidentified significant ecological features be identified during the works:

- Operations shall cease within the immediate area.
- The feature shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate mitigation measures shall be implemented before works recommence, where required.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

hould accidental damage to retained woodland or retained trees occur:

- Stop works within the affected area.
- Prevent further disturbance or machinery access where practicable.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the damage, including photographs where practicable.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate remedial measures shall be implemented where required.
- Record all corrective actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of retained woodland constraints prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary damage to retained woodland and retained trees.
- Report any accidental damage or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-05: Watercourse and Aquatic Habitat Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect watercourses, riparian habitats and associated aquatic ecosystems from direct and indirect impacts arising from forestry operations.

Forestry activities have the potential to adversely affect water quality through sediment mobilisation, accidental pollution, physical disturbance of watercourses and alterations to natural drainage patterns. The implementation of appropriate protection measures is therefore essential to safeguard aquatic habitats and maintain compliance with relevant environmental legislation and recognised forestry best practice.

2.0 Scope

This Method Statement applies to all forestry operations undertaken within or adjacent to:

- Rivers;
- Streams;
- Drainage channels;
- Wet flushes;
- Springs;
- Temporary watercourse crossings;
- Riparian habitats;
- Areas hydrologically connected to surface waters.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Water Framework Directive (2000/60/EC).
- Council Directive 92/43/EEC (Habitats Directive).
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Wildlife Acts 1976–2023.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).

- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- Inland Fisheries Ireland (IFI) guidance relating to forestry and fisheries protection.
- Environmental Protection Agency (EPA) guidance on pollution prevention and water protection.
- Project Ecological Constraints Map.

4.0 Ecological Receptors

This Method Statement applies to:

- Rivers and streams;
- Drainage channels;
- Riparian vegetation;
- Wet woodland;
- Wet grassland;
- Springs and seepages;
- Aquatic invertebrate habitat;
- Fish habitat where present;
- Amphibian habitat;
- Otter habitat and associated riparian corridors.

4.1 Project-Specific Considerations – Merlin Park Woods

The ecological assessment identified one principal aquatic corridor within Merlin Park Woods together with a network of smaller drainage ditches and ephemeral drainage features. Although no flowing surface water was observed during the July 2026 ecological surveys, these features contribute to the site's natural drainage network and may convey water during periods of prolonged or heavy rainfall. They also function as ecological corridors within the woodland and may provide habitat for aquatic and semi-aquatic flora and fauna under suitable conditions.

The principal aquatic corridor is identified on the Ecological Constraints Map and shall be protected by a 10 m operational stand-off (set-back). Secondary drainage ditches and other relevant drainage features shall be protected by a minimum 5 m operational stand-off, unless otherwise agreed with the Project Ecologist.

Harvesting operations, extraction routes, timber stacking areas and machinery movements shall be planned to avoid unnecessary interaction with these drainage features. Temporary crossings shall only be used where identified within the operational design or where otherwise agreed following consultation with the Project Ecologist. Existing drainage patterns shall be maintained, and activities

that could obstruct drainage, increase sediment mobilisation or alter hydrological connectivity shall be avoided.

Although dry during the survey period, all drainage features shall be treated as potentially functional watercourses throughout the works, particularly following periods of heavy rainfall. Appropriate pollution prevention measures shall therefore be maintained at all times in accordance with this Ecological Protection Method Statement.

5.0 Environmental Risks

Potential impacts include:

- Sediment release to surface waters;
- Fuel and oil pollution;
- Chemical contamination;
- Physical damage to stream banks;
- Alteration of drainage patterns;
- Increased erosion;
- Disturbance of aquatic habitats;
- Damage to riparian vegetation;
- Disturbance of protected fauna associated with watercourses.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- All watercourses shall be accurately mapped.
- Aquatic buffer zones shall be identified in accordance with current DAFM Forestry Standards and any applicable licence conditions.
- Machinery operators shall receive an ecological toolbox talk identifying sensitive aquatic features.
- Extraction routes and stacking areas shall be designed to avoid watercourses wherever reasonably practicable.
- Emergency spill response equipment shall be available on site before works commence.

6.2 Operational Controls

During forestry operations:

- Aquatic buffer zones shall be maintained in accordance with DAFM Forestry Standards and Environmental Requirements.
- Machinery shall avoid entering watercourses unless specifically authorised.

- Timber, brash, spoil and waste materials shall not be deposited within aquatic buffer zones.
- Existing drainage pathways shall be maintained.
- Disturbance of stream banks shall be minimised.
- Watercourses and drainage features shall not be used for machinery access except at designated crossing locations identified within the approved Harvest Operations Plan and implemented in accordance with Section 6.4.
- Harvesting operations shall be planned to minimise the risk of sediment mobilisation.

Where the approved operational design requires a designated machinery crossing through an aquatic exclusion zone, machinery movement within the exclusion zone shall be confined strictly to the mapped crossing location. No machinery shall track longitudinally within the drainage feature or elsewhere within the aquatic exclusion zone. The crossing shall be established and used so as to maintain the existing drainage function and minimise disturbance to the bed, banks and adjoining ground.

The design of forestry operations shall follow the principle of avoidance, with watercourses excluded from the operational footprint wherever reasonably practicable.

6.3 Fuel, Oils and Chemicals

- Fuel storage shall be located outside aquatic buffer zones.
- Refuelling, servicing and chemical storage shall not occur within aquatic buffer zones or within 50 metres of the aquatic zone, whichever provides the greater level of protection.
- Spill kits shall be maintained adjacent to refuelling locations.
- Any spill shall be contained immediately and reported to the Site Manager.

6.4 Temporary Watercourse Crossings

Existing crossing points shall be utilised wherever practicable. Temporary crossings shall be restricted to the designated operational crossing points identified within the approved Harvest Operations Plan.

Where a designated machinery crossing is associated with a mapped aquatic/drainage constraint, machinery movement within the aquatic exclusion zone shall be confined strictly to the mapped crossing alignment. The crossing shall be established and used so as to minimise disturbance to the bed, banks and adjoining ground, maintain the existing drainage function and prevent sediment, brash, hydrocarbons or other pollutants entering the drainage feature.

Where the drainage feature is dry, crossing arrangements shall minimise erosion, bank damage, rutting and obstruction of the existing drainage pathway. No machinery shall travel longitudinally within the drainage channel. Where flowing water is present, direct machinery crossing of the bed shall be prohibited and an appropriate temporary spanning structure shall be used.

The following requirements shall apply:

- Existing crossings shall be used wherever practicable;

- Bed and bank disturbance shall be minimised;
- Ground protection shall be provided on crossing approaches where required to prevent significant rutting or sediment mobilisation;
- The crossing shall not be used where active flow, saturated or unstable ground conditions, significant rutting or ground deformation create a material risk of sediment or pollutant transfer;
- Temporary crossing structures or ground-protection materials shall be removed following completion of the works where appropriate;
- Banks and crossing approaches shall be reinstated where necessary to maintain the existing drainage function and prevent persistent sediment pathways; and
- Any subsequent alteration to the location or configuration of a designated crossing that interacts with a mapped aquatic/drainage constraint shall require appropriate ecological review prior to implementation.

6.5 Weather Conditions

Forestry operations adjacent to watercourses shall be reviewed during periods of prolonged or heavy rainfall.

Where there is a significant risk of sediment mobilisation or pollution, works shall be postponed until site conditions are suitable.

Particular regard shall be given to conditions at the designated machinery crossing associated with the mapped aquatic/drainage constraint. Where the drainage feature is actively conveying flow, use of the crossing shall be subject to the spanning and protection requirements specified in Section 6.4 and shall cease where flow or ground conditions create a material risk of sediment mobilisation, pollution or damage to the drainage feature.

6.6 Discovery of Previously Unrecorded Aquatic Features

Should previously unrecorded watercourses, springs or wetland habitats be encountered during the works:

- Operations shall cease within the immediate area.
- The feature shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Any amendments to ecological constraints shall be documented where required.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should accidental damage to retained woodland or retained trees occur:

- Stop works within the affected area.
- Prevent further disturbance or machinery access where practicable.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the damage, including photographs where practicable.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate remedial measures shall be implemented where required.
- Record all corrective actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of retained woodland constraints prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary damage to retained woodland and retained trees.
- Report any accidental damage or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-06: Red Squirrel Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to minimise disturbance to Red Squirrel (*Sciurus vulgaris*) and protect the woodland habitat upon which the species depends during the implementation of the proposed forestry operations.

Red Squirrel is one of Ireland's native woodland mammals and is protected under the Wildlife Acts. Merlin Park Woods provides suitable foraging, nesting and dispersal habitat for the species. Forestry operations shall therefore be undertaken to minimise habitat fragmentation, retain woodland connectivity and avoid unnecessary disturbance during sensitive periods.

2.0 Scope

This Method Statement applies to all forestry operations including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Ground disturbance;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Wildlife Acts 1976–2023.
- Forestry Act 2014.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- National Parks and Wildlife Service (NPWS) guidance.
- National Biodiversity Data Centre (NBDC) species information.

- Forestry Commission, *Red Squirrels and Forestry Operations* (good practice guidance).

4.0 Ecological Receptors

This Method Statement applies to:

- Red Squirrel;
- Active dreys;
- Breeding habitat;
- Foraging habitat;
- Woodland canopy connectivity;
- Mature broadleaf woodland;
- Conifer and mixed woodland utilised by Red Squirrel.

4.1 Project-Specific Considerations – Merlin Park Woods

Red Squirrel has been confirmed within Merlin Park Woods through consultation with local stakeholders and Dr Colin Lawton (University of Galway), although active dreys were not recorded during the ecological field surveys.

The proposed harvesting programme is scheduled to commence in September, outside the principal breeding season, thereby substantially reducing the likelihood of disturbance to breeding animals. Consultation with Dr Lawton indicated that red squirrels are unlikely to remain within active harvesting areas once forestry operations commence, owing to the progressive disturbance associated with machinery, noise and human activity. Consequently, the principal ecological objective is the retention of suitable woodland habitat and canopy connectivity rather than the protection of individual dreys within the operational area.

5.0 Environmental Risks

- Temporary disturbance during harvesting operations.
- Temporary displacement from foraging habitat.
- Localised loss of nesting habitat within the operational area.
- Habitat fragmentation.
- Loss of canopy connectivity.
- Injury or mortality if active breeding dreys are inadvertently disturbed.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

• Contractors shall receive an ecological toolbox talk outlining Red Squirrel protection measures.

• Harvesting shall be undertaken outside the principal breeding season wherever practicable.

• The approved harvesting design shall be followed to retain woodland habitat and canopy connectivity wherever practicable.

6.2 Operational Controls

During forestry operations:

• Woodland habitat shall be retained in accordance with the approved harvesting design.

• Mature broadleaved woodland and woodland edge habitat shall be retained wherever identified within the harvesting design.

• Machinery movements outside designated operational areas shall be avoided wherever practicable.

• Timber shall not be stacked against retained habitat trees.

• Should an active breeding drey be identified during operations, works shall cease within the immediate area, the Site Manager shall be notified and the Client shall seek ecological advice before works recommence.

6.3 Habitat Retention

Where practicable:

- Mature broadleaved woodland and woodland edge habitat shall be retained where identified within the harvesting design. Woodland edge habitat shall be maintained.
- Habitat fragmentation shall be minimised.
- Canopy links between retained woodland blocks shall be preserved where operationally feasible.

6.4 Discovery of Active Breeding Dreys

Should a previously unidentified active red squirrel drey be encountered during the works:

- Operations shall cease within the immediate area.
- The drey tree shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate stand-off distances and mitigation measures shall be implemented where required.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should accidental damage to retained woodland or retained trees occur:

- Stop works within the affected area.
- Prevent further disturbance or machinery access where practicable.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the damage, including photographs where practicable.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate remedial measures shall be implemented where required.
- Record all corrective actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of the Red Squirrel mitigation measures contained within this Method Statement.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary damage to retained woodland and retained trees.
- Report any accidental damage or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-07: Badger Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect Badger (*Meles meles*), its breeding and resting places, and associated habitat from disturbance or damage during forestry operations.

Badgers are protected under the Wildlife Acts, making it an offence to intentionally kill or injure a Badger or to wilfully damage, destroy or interfere with its breeding or resting place (sett). Forestry operations shall therefore be planned and implemented to avoid impacts on Badger setts and associated habitat.

2.0 Scope

This Method Statement applies to all forestry operations undertaken within or adjacent to Badger habitat, including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Ground disturbance;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Wildlife Acts 1976–2023.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).

- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- National Parks and Wildlife Service (NPWS) guidance.
- Mullen, E. et al. (2019). Best practice guidance relating to forestry operations in the vicinity of Badger setts.
- Project Ecological Constraints Map.

4.0 Ecological Receptors

This Method Statement applies to:

- Badger (*Meles meles*);
- Active badger setts;
- Breeding, main, annexe and outlier setts;
- Badger paths and runs;
- Latrines.

4.1 Project-Specific Considerations – Merlin Park Woods

No active Badger setts were identified during the ecological surveys undertaken for this assessment. Nevertheless, suitable Badger habitat occurs within Merlin Park Woods and the species may utilise the wider woodland for foraging or shelter.

The proposed harvesting operations have been designed to minimise unnecessary disturbance to woodland habitats. Should a previously unidentified active sett be encountered during the works, operations shall cease within the immediate area and appropriate ecological advice shall be sought before works recommence.

5.0 Environmental Risks

Potential impacts include:

- Potential disturbance to previously unidentified Badger setts.
- Collapse or obstruction of previously unidentified sett entrances.
- Injury or mortality if active setts are inadvertently disturbed.
- Temporary disturbance from machinery and forestry operations.
- Localised loss of shelter or foraging habitat.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- Site personnel shall receive an ecological toolbox talk outlining Badger protection measures.

- The approved harvesting design and Ecological Constraints Map shall be reviewed during the site induction.
- Should evidence of previously unidentified Badger activity be identified immediately prior to commencement of works, the Site Manager shall notify the Client and ecological advice shall be sought where appropriate.

6.2 Operational Controls

The following protection measures shall be implemented throughout the works:

- All Badger setts shall be retained and protected.
- A minimum 30 m machinery exclusion zone shall be maintained around all active Badger setts.
- During the breeding season (January to June inclusive), the machinery exclusion zone shall increase to 50 m.
- No forestry operations shall be undertaken within the 50 m protective zone during the breeding season.
- Manual tree felling may be undertaken within the 30 m exclusion zone during the period July to December, provided operations do not damage the sett or obstruct Badger access.
- Trees shall be directionally felled away from Badger setts wherever practicable.
- Timber extraction from within the exclusion zone shall be undertaken manually or by methods that avoid machinery entering the protected area.
- Timber, brash, spoil, fuels, chemicals and other materials shall not be stored within the exclusion zone.
- Sett entrances, Badger paths, runs and latrines shall remain unobstructed throughout the works.
- Trees felled adjacent to exclusion zones may be retained as higher stumps where appropriate to provide a visible operational boundary.

The design of harvesting operations shall follow the principle of avoidance, with Badger setts excluded from the operational footprint wherever reasonably practicable.

6.3 Best Practice Recommendations

Recent ecological research indicates that Badgers may be particularly sensitive to disturbance during the breeding period.

Accordingly, where operationally practicable:

- No thinning or felling should be undertaken in the immediate vicinity of active Badger setts between January and March.
- A precautionary stand-off distance of up to 150 m should be considered between April and June, particularly where breeding activity is known or suspected.
- These recommendations represent current ecological best practice and should be implemented where compatible with operational requirements and health and safety considerations.

6.4 Discovery of Previously Unrecorded Setts

Should a previously unidentified Badger sett be discovered during forestry operations:

- Operations shall cease immediately within the affected area.
- Site Manager shall be notified immediately.
- The Client shall seek ecological advice before works recommence.
- The sett shall be protected from disturbance.
- The Ecological Constraints Map shall be updated.
- Appropriate exclusion zones and mitigation measures shall be established before operations recommence.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should accidental damage occur to an active Badger sett or associated habitat:

- Stop works within the affected area.
- Prevent further disturbance or machinery access where practicable.
- Notify the Site Manager immediately.
- Record the location, nature and extent of the damage, including photographs where practicable.
- The Client shall seek ecological advice where appropriate before works recommence within the affected area.
- Appropriate remedial measures shall be implemented where required.
- Record all corrective actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.

- Ensure all personnel are aware of the Badger protection measures contained within this Method Statement prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary damage to retained woodland and retained trees.
- Report any accidental damage or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-08: Bat Protection

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect bats and their breeding sites, resting places and associated woodland habitat during the implementation of forestry operations within Merlin Park Woods.

All bat species occurring in Ireland are strictly protected under European and Irish legislation. In addition to individual bats, all bat roosts are protected whether occupied or not. Forestry operations shall therefore be planned and undertaken to avoid disturbance, injury or mortality and to protect potential roost features (PRFs), commuting routes and foraging habitat.

2.0 Scope

This Method Statement applies to:

- Tree felling;
- Tree surgery;
- Timber extraction;
- Machinery access;
- Timber stacking;
- Vegetation clearance;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking works within the operational area.

3.0 Relevant Legislation and Guidance

Legislation

- Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive).
- Wildlife Acts 1976–2023.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Forestry Act 2014.

Guidance

- Aughney, T. (2024). *Static Surveillance Bat Survey of Galway City, Co. Galway with Particular Emphasis on the Lesser Horseshoe Bat – Part 1.* Unpublished report prepared for Galway City Council.
- Marnell, F., Kelleher, C. & Mullen, E. (2022). *Bat Mitigation Guidelines for Ireland – Version 2*. Irish Wildlife Manuals No. 134. National Parks and Wildlife Service.
- McAney, K. (2013). *Bat Fauna Recorded in Merlin Park Woods 2013.* Letter prepared for Galway City Council on behalf of the Vincent Wildlife Trust.

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- Reason, P.F. & Wray, S. (2023). *UK Bat Mitigation Guidelines*. CIEEM.
- National Roads Authority (2006). *Best Practice Guidelines for the Conservation of Bats in the Planning of National Road Schemes*.
- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
- Project Ecological Constraints Map.
- Galway City Council. (2025). *Local Biodiversity Action Fund 2025 Application – Pilot Ground Truthing of the Vincent Wildlife Trust Modelling of Landscape Connectivity for Lesser Horseshoe Bats in Galway City.*

4.0 Ecological Receptors

This Method Statement applies to:

- All Irish bat species;
- Confirmed bat roosts;
- Potential Roost Features (PRFs);
- Veteran trees;
- Mature broadleaf trees;
- Trees containing cavities, cracks, rot holes, loose bark or woodpecker holes;
- Standing deadwood where safe to retain;
- Bat commuting routes;

4.1 Project-Specific Considerations – Merlin Park Woods

Merlin Park Woods comprises mature broadleaved woodland containing numerous trees with features capable of supporting bat roosts, including cavities, rot holes, hazard beams, loose bark, vertical splits and woodpecker holes. The woodland also provides high-quality commuting and foraging habitat associated with woodland rides, glades, edge habitats, mature tree lines and the site's drainage network.

Information provided by the National Parks and Wildlife Service indicates the presence of a known Brown Long-eared Bat (*Plecotus auritus*) roost within Merlin Castle, located adjacent to the

woodland. Previous bat surveys undertaken within the wider Merlin Park area also confirm the importance of the woodland for foraging and commuting bats. While no confirmed tree roosts are currently known within the harvesting area, the abundance of Potential Roost Features (PRFs) means that bat occupancy cannot be discounted.

The harvesting proposals have been designed to retain the majority of mature broadleaved trees. The principal potential impact therefore relates to the removal of standing dead ash (*Fraxinus excelsior*) affected by ash dieback where removal is required for operational safety or to facilitate the approved harvesting works, including designated crossing points.

The proposed harvesting operations primarily involve the removal of small-diameter conifer stems and standing dead ash (*Fraxinus excelsior*) affected by ash dieback, generally with a diameter at breast height (DBH) of less than 20 cm. Although some of these trees, particularly where dense ivy growth is present, may provide limited roosting opportunities for individual bats, the proposed works are not anticipated to result in the loss of significant tree roost habitat.

Owing to the large number of small-diameter ash trees requiring removal, pre-felling inspection of every individual tree is not considered reasonably practicable. A precautionary soft-felling approach shall therefore be adopted. Trees requiring removal shall initially be cut at a suitable height and the retained stem sections left undisturbed for several days prior to further processing, allowing any bats that may be present the opportunity to emerge naturally before the timber is processed.

Harvesting has been programmed outside the principal bat maternity season. All operations will be undertaken during daylight hours and no artificial lighting is proposed. Consequently, lighting-related impacts on bat commuting and foraging behaviour are not anticipated.

Some localised alteration of commuting routes may occur through the removal of adjoining conifer trees. However, the harvesting design retains the majority of mature broadleaved woodland, particularly along woodland edges, with the exception of standing dead ash requiring removal for operational or public safety reasons. The principal woodland edge and canopy features used by commuting and foraging bats are therefore expected to remain largely intact.

5.0 Environmental Risks

Potential impacts include:

- Loss of bat roosts;
- Disturbance of roosting bats;
- Injury or mortality during tree felling;
- Loss of Potential Roost Features;
- Fragmentation of commuting routes;
- Reduction in foraging habitat;
- Increased lighting disturbance;
- Excessive vibration and noise adjacent to occupied roosts.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- Site personnel shall receive an ecological toolbox talk outlining bat protection measures and emergency procedures.
- The approved harvesting design and Ecological Constraints Map shall be reviewed during site induction.
- Harvesting shall be programmed outside the principal bat maternity season.
- Mature broadleaved woodland and woodland edge habitat shall be retained in accordance with the approved harvesting design wherever practicable.

6.2 Operational Controls

During forestry operations:

Where a tree proposed for removal displays an obvious or significant Potential Roost Feature, including a cavity, substantial rot hole, significant split, loose bark feature or other feature capable of supporting a bat roost, the tree shall not be felled solely under the general precautionary soft-felling procedure. Works affecting that tree shall cease pending ecological consideration and appropriate advice before felling proceeds.

A precautionary soft-felling approach shall be adopted where appropriate for standing dead ash and other trees requiring removal.

- Stem sections shall be retained for an appropriate period prior to processing to allow any bats present to emerge naturally.
- Confirmed bat roosts shall not be disturbed unless authorised under the relevant statutory licensing procedures.
- Directional felling shall minimise damage to retained habitat trees.
- Standing deadwood shall be retained where compatible with public safety and operational requirements.
- Woodland edge habitat and canopy connectivity shall be retained wherever practicable.
- Artificial lighting shall be avoided.

6.3 Discovery of Bats During Operations

Should bats or a previously unidentified bat roost be discovered during works:

- Operations shall cease within the immediate area.
- The tree or roost shall be protected from further disturbance.
- The Site Manager shall be notified immediately.
- The Client shall seek ecological advice before works recommence within the affected area.

- Where required, the National Parks and Wildlife Service shall be consulted before works recommence.

6.4 Habitat Retention

Where practicable:

- Mature broadleaved woodland shall be retained in accordance with the harvesting design.
- Woodland edge habitat and canopy connectivity shall be maintained wherever practicable.
- Habitat fragmentation shall be minimised.

7.0 Monitoring

Compliance with this Method Statement shall remain the responsibility of the Contractor.

The Project Ecologist shall undertake ecological inspections during agreed site visits in accordance with the scope of the appointment.

Additional ecological inspections, advice or reporting arising from unforeseen ecological issues or proposed changes to the approved harvesting design may require separate instruction by the Client.

8.0 Incident Response

Should bats or an occupied roost be encountered unexpectedly:

- Stop works within the affected area.
- Protect the tree or roost from further disturbance.
- Notify the Site Manager immediately.
- Record the location and circumstances, including photographs where practicable.
- The Client shall seek ecological advice before works recommence.
- Where required, the National Parks and Wildlife Service shall be consulted before works recommence.
- Record all actions within the site environmental records.

9.0 Responsibilities

Contractor

The Contractor shall:

- Implement the mitigation measures contained within this Method Statement.
- Ensure all personnel are aware of the bat protection measures contained within this Method Statement prior to commencing works.
- Operate in accordance with the approved harvesting design and Ecological Constraints Map.
- Prevent unnecessary damage to retained woodland and retained trees.

- Report any accidental damage or previously unidentified ecological features to the Site Manager.

Project Ecologist

The Project Ecologist shall:

- Provide ecological advice in accordance with the agreed scope of appointment.
- Deliver the pre-commencement ecological toolbox talk.
- Undertake ecological inspections during agreed site visits.
- Provide additional ecological advice where requested by the Client.
- Prepare any agreed ecological reporting arising from the appointment.

EPMS-09 -Bird Protection:

1.0 Purpose

The purpose of this Ecological Protection Method Statement (EPMS) is to protect breeding birds, their nests, eggs and dependent young, together with associated woodland habitat, during the implementation of forestry operations.

All wild birds, their nests and eggs are protected under Irish and European legislation. Forestry operations shall therefore be planned and undertaken to avoid disturbance to breeding birds and prevent the destruction of active nests.

The proposed harvesting programme has been scheduled to commence in **September**, outside the principal bird breeding season, thereby substantially reducing the likelihood of impacts on breeding birds.

2.0 Scope

This Method Statement applies to all forestry operations including:

- Tree felling;
- Timber extraction;
- Machinery access;
- Vegetation clearance;
- Timber stacking;
- Temporary compounds;
- Reinstatement works.

The Method Statement applies to all contractors, subcontractors and visitors undertaking the works.

3.0 Relevant Legislation and Guidance

Legislation

- Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive).
- Wildlife Acts 1976–2023.
- European Communities (Birds and Natural Habitats) Regulations 2011–2025.
- Forestry Act 2014.

Guidance

- Department of Agriculture, Food and the Marine (DAFM). (2026). *Forestry Standards Manual.* Forest Service, Department of Agriculture, Food and the Marine. (Last updated 16 April 2026).
- Department of Agriculture, Food and the Marine (DAFM). (2024). *Environmental Requirements for Afforestation.* Forest Service, Department of Agriculture, Food and the Marine. (Updated by Circular 20 of 2025).
- Department of Agriculture, Food and the Marine (DAFM). (2019). Standards for Felling and Reforestation. Forest Service, Department of Agriculture, Food and the Marine.
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- National Parks and Wildlife Service (NPWS) guidance relating to breeding birds.
- BirdWatch Ireland guidance where applicable.
- Project Ecological Constraints Map.

4.0 Ecological Receptors

This Method Statement applies to:

- Woodland breeding birds;
- Woodland edge species;
- Hole-nesting species;
- Ground-nesting species;
- Raptors;
- Corvids;
- Scrub nesting birds;
- Water-associated bird species where present;
- Nest trees and associated breeding habitat.

4.1 Project-Specific Considerations – Merlin Park Woods

Merlin Park Woods supports a diverse assemblage of woodland and woodland-edge bird species associated with mature broadleaved woodland, scrub, glades and riparian habitats.

The proposed harvesting programme has been scheduled to commence in September, outside the principal bird breeding season, as the primary mitigation measure to minimise disturbance to breeding birds and avoid impacts on active nests.

During stakeholder consultation, [redacted] (Friends of Merlin Woods) advised of a successful Sparrowhawk (*Accipiter nisus*) breeding territory located immediately north of the proposed harvesting area. During a site visit in July 2026, dependent juvenile Sparrowhawks were heard calling within this area, confirming successful breeding within the wider woodland. The reported nest location lies outside the proposed harvesting area and is expected to have fledged prior to the commencement of harvesting operations.

While the timing of the works substantially reduces the likelihood of impacts on breeding birds, some species may nest outside the principal breeding season depending on prevailing weather conditions and species ecology. Should evidence of active nesting be encountered immediately prior to or during operations, appropriate protection measures shall be implemented.

5.0 Environmental Risks

Potential impacts include:

- Disturbance of breeding birds;
- Destruction of active nests;
- Injury or mortality of dependent young;
- Removal of nest trees;
- Temporary loss of breeding habitat;
- Disturbance arising from machinery and timber extraction;
- Reduction in woodland edge habitat;
- Temporary fragmentation of woodland habitat.

6.0 Protection Measures

6.1 Pre-Commencement

Prior to commencement of works:

- Where works are proposed in suitable nesting habitat and there is reason to suspect active nesting activity outside the principal breeding season, the operational area shall be checked immediately prior to commencement of works by a suitably qualified ecologist.
- Harvesting operations shall be planned to minimise unnecessary disturbance to retained woodland habitat.

6.2 Operational Controls

The principal bird breeding season in Ireland generally extends from **1 March to 31 August inclusive**, although nesting activity may occur outside this period depending upon species and prevailing weather conditions.

Accordingly:

- Tree felling has been programmed to commence in **September**, outside the principal breeding season.
- Woodland edge habitat shall be retained wherever practicable.
- Trees identified for ecological retention shall not be damaged.
- Standing deadwood shall be retained where compatible with operational safety.
- Timber, machinery and materials shall not be stored within retained habitat areas.

Should an active bird nest be identified during the works, operations within the immediate vicinity shall cease immediately and the nest shall be protected from disturbance. The Site Manager shall notify the Client and seek advice from a suitably qualified ecologist before works recommence. Where appropriate, consultation with the National Parks and Wildlife Service (NPWS) shall be undertaken.

6.3 Raptors

Raptors may utilise mature woodland for nesting and foraging.

Particular attention should be paid to woodland immediately adjoining the northern boundary of the harvesting area, where successful Sparrowhawk breeding was recorded during the 2026 breeding season.

Where an active raptor nest is identified during pre-operational inspections or during the course of the works:

- Operations within the immediate vicinity shall cease immediately.
- The nest shall be protected from disturbance.
- The Site Manager shall notify the Client and seek advice from a suitably qualified ecologist.
- Appropriate species-specific protection measures, including exclusion zones where necessary, shall be established before works recommence.
- Consultation with the National Parks and Wildlife Service (NPWS) shall be undertaken where appropriate.

6.4 Habitat Retention

Where practicable:

- Mature broadleaf woodland shall be retained.
- Trees containing cavities suitable for nesting birds shall be retained where operationally feasible.
- Woodland edge habitat shall be maintained.

- Habitat fragmentation shall be minimised.
- Existing ecological connectivity shall be maintained where practicable.