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LIMERICK CITY AND COUNTY COUNCIL LOCAL AUTHORITY BIODIVERSITY ACTION PLAN 2025-2030

Appropriate Assessment Screening Report

Prepared for:

Limerick City and County Council

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Limerick City & County Council

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Local Authority Biodiversity Action Plan AA Screening Report for Limerick City and County Council

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Abstract: Fehily Timoney and Company is pleased to submit this AA Screening Report to Limerick City and County Council for their Local Authority Biodiversity Action Plan.

This project is funded by Limerick City and County Council and the Heritage Council. The Local Authority Biodiversity Officer Programme is delivered in Partnership with the Heritage Council.

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1. INTRODUCTION

1.1 Introduction

Fehily Timoney and Company (FT) was commissioned by Limerick City and County Council to prepare an Appropriate Assessment Screening Report for their Local Authority Biodiversity Action Plan (LABAP) for the years 2025-2030. The aim of the LABAP is to promote biodiversity conservation at local authority level.

This report presents an examination of whether the LABAP is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is based on best available scientific knowledge. This report has been prepared to inform the competent authority in completing their statutory obligations in relation to Appropriate Assessment, as required by Article 6(3) under Council Directive 92/43/EEC (Habitats Directive).

1.2 Background to Biodiversity Action Plans

LABAPs must be prepared in accordance with The Heritage Council's Local Authority Biodiversity Action Plan Guidelines (2024). Thes guidelines provide best practice guidance to local authorities on preparing and implementing biodiversity conservation actions within their functional area. These guidelines advise that LABAPS 'should aim to record, conserve, restore and promote biodiversity, and to increase awareness, understanding and appreciation of it among the people of the area.'

LABAPS are designed to provide a structured approach to biodiversity conservation at local level. Local authorities are required to develop a compelling vision for their LABAP and a set of clear, measurable and achievable objectives for biodiversity conservation in their functional area. LABAPs are developed by local authority Biodiversity Officers with the support of a dedicated Biodiversity Working Group. Public engagement and consultation must be undertaken at the Pre-draft and Draft Plan stages of the Plan-making process. All submissions from stakeholders and members of the public should be considered during the development of a LABAP.

LABAPs should serve to define targeted and focussed action for promoting biodiversity conservation through the functions of a local authority in alignment with nature legislation and higher order policy such as the 4th National Biodiversity Action Plan and inter-related policy. LABAPs should be in harmony with and support the land use planning framework, including City and County Development Plans and Local Area Plans.

LABAPs are non-statutory land use plans that should be screened for the need for SEA and AA.

1.3 Legislative Context

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) provides legal protection for habitats and species of European importance. The Directive requires that where a plan or project is likely to have a significant effect on a European Site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

> *"6(3) Any plan or project not directly connected with or necessary to the management of the site (Natura 2000 sites) but likely to have significant effect thereon, either individually or in combination with other plans or projects, shall be subject to Appropriate Assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."*

These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning and Development Act 2000 (as amended).

The competent authority must carry out a screening for appropriate assessment to assess, in view of best scientific knowledge, if the proposed plan, individually or in combination with another plan or project is likely to have a significant effect on the European site. If it cannot be excluded, on the basis of objective information, that the proposed plan, individually or in combination with other plans or projects, will have a significant effect on a European site, an appropriate assessment of its implications for the European Site(s) in view of the Site's conservation objectives must be carried out.

The provisions of Article 6(3) do not apply where the proposed plan or project is 'connected with or necessary to the management of the site'. In this case, the plan is not directly connected with or necessary to the management of any European site(s).

1.4 Guidance

The assessment was conducted in accordance with the following guidance:

- Fossitt, J. A. (2000). A guide to habitats in Ireland. Heritage Council/Chomhairle Oidhreachta.
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. National Parks and Wildlife Service (NPWS), Department of the Environment, Heritage and Local Government, Dublin (2009, updated 2010);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission 2013;
- Scottish Natural Heritage. (2016). Assessing Connectivity with Special Protection Areas (SPAs) Guidance.
- Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission (2019). Brussels, (2019/C 33/01). OJ C 33, 25.1.2019.

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg (European Commission, 2002). This document was updated by Assessment of plans and projects in relation to Natura 2000 sites - Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Commission Notice (2021) Brussels, 28.9.2021 C (2021) 6913 final;
- OPR Practice Note PN01 Appropriate Assessment Screening for Development Management, Office of the Planning Regulator (2021).
- Atkinson, S., Magee, M., Moorkens, E.A. & Heavey, M. (2024). Guidance on Assessment and Construction Management in Margaritifera Catchments in Ireland. https://e-mussels.eu/europe/conservation-guidelines

1.5 Assessment Process and Approach

The process of determining the likelihood of significant effects from a proposed plan or project on European sites is an iterative process centred around a Source-Pathway-Receptor (S-P-R) model. In order for an effect to be established, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g., pollutant run-off, noise, removal of vegetation etc.;
- Pathway(s) – functional link, or ecological pathway e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) –the qualifying habitats and species of European sites and ecological resources supporting those habitats/species.

In the context of this report, a source is any identifiable element of the proposed plan that is known to interact with the receiving environment. A receptor is the Qualifying Interests (QI)[1] for an SAC or Special Conservation Interests (SCI)[2] for an SPA or an ecological feature that is known to be utilised by the QI/SCI. In practice, the term Qualifying Interests also applies to SCIs (and is used in this document for simplicity). A pathway is any connection or link between the source and the receptor.

The assessment commences with a description of the plan, and the associated sources for impacts to the receiving environment. The type of impacts that are likely due to the plan (Source) are identified having regard to the spatial and temporal scale of the plan, resource requirements and likely emissions. These sources are then used to define the zone of influence (ZoI) of the plan.

[1] SACs are areas designated under the Habitats Directive to conserve habitats listed in Annex I of the Directive and plant and animal species listed in Annex II. Collectively these are referred to as the 'Qualifying Interests' or 'QIs' of the SAC.
[2] SPAs are sites classified under the Birds Directive to protect rare or vulnerable bird species listed in Annex I to the Directive as well as regularly occurring migratory species and wetlands. Wetland habitats that support internationally important populations of migratory birds may be coastal or inland. Collectively, these species and habitats are referred to as the 'Special Conservation Interests' of the SPA.

The European Commission Notice (2021) on the 'Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on Article 6(3) and (4) of the Habitats Directive 92/43/EEC, states that in identifying European sites (Natural 2000 sites), which may be affected by a plan or project, the following should be identified:

- Any European sites geographically overlapping with any of the actions or aspects of the plan or project in any of its phases, or adjacent to them;
- Any European sites within the likely zone of influence of the plan or project. European sites located in the surroundings of the plan or project (or at some distance) that could still be indirectly affected by aspects of the plan project, including as regards the use of natural resources (e.g., water) and various types of waste, discharge or emissions of substances or energy;
- European sites whose connectivity or ecological continuity can be affected by the plan or project.

The zone of influence of a plan is the geographical area over which it could affect the receiving environment in a way that could have potential effects on the Qualifying Interests of a European site. The OPR (2021) practice note states that the Zone of Influence must be established on a case-by-case basis using the Source-Pathway-Receptor (S-P-R) framework and not by arbitrary distances (such as 15 km). Section 3.3 sets out the detailed rationale for the identification of relevant European sites within the ZoI based on the sources of impacts arising from the proposed plan. Subsequently, an assessment is undertaken with respect to potential connectivity (Pathways) to European Sites and their qualifying interests/special conservation interests are identified.

The potential for in-combination impacts with other plans and projects is also assessed having regard to the identified impacts of the proposed plan along the ecological pathways identified to European sites.

The likelihood of significant effects on the European Sites within the ZoI is examined having regard to the sensitivity of each European site with pathways for impacts associated with the proposed plan on its own and in combination with other plans and projects.

Having regard to the European Commission Communication on the Precautionary Principle (European Commission, 2000) the:

> "*absence of scientific evidence on the significant negative effect of an action cannot be used as justification for approval of this action. When applied to Article 6(3) procedure, the precautionary principle implies that the absence of a negative effect on Natura 2000 sites has to be demonstrated before a plan or project can be authorised. In other words, if there is a lack of certainty as to whether there will be any negative effects, then the plan or project cannot be approved*."

Where significant effects are determined to be likely, or where there is uncertainty regarding the likelihood of significant effects, the plan will be required under law to be subjected to Appropriate Assessment.

2. DESCRIPTION OF THE LOCAL AUTHORITY BIODIVERSITY ACTION PLAN

2.1 Local Authority Biodiversity Action Plan

The overarching aim of the LABAP is to record, conserve, restore and promote biodiversity, and to increase awareness, understanding and appreciation of it among the people of the area.

The following Strategic Objectives are defined in the LABAP:

- Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity
- Meet Urgent Conservation and Restoration Needs
- Secure Nature's Contribution to Current and Future Generations
- Enhance the Evidence Base for Action on Biodiversity
- Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives

A series of Actions have been defined in the LABAP under each Strategic Objective. The higher-level Objectives are broader in scope, while the Actions underpinning the Objectives are more defined and measurable. These are presented in Table 3-1.

Table 2-1: LABAP Strategic Objectives and Actions

Objective	Action Code	Action
A. Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity	1	Actively communicate good news Biodiversity Case Studies/Initiatives via the Council's Communication team
	2	Continue to host the Limerick Biodiversity Forum
	3	Biodiversity Training for all in LCCC a) Decision Makers including b) elected representatives c) indoor and outdoor staff
	4	Include best practise Biodiversity Training requirement/standard in all council procurement processes
	5	Invest /work with 3rd parties in demonstration sites to promote local biodiversity
	6	Ensure biodiversity is integrated into guidance document for LCCC grant initiatives
	7	Work Actively with TT groups, NGOs and Faith Communities in relation to Biodiversity etc.
	8	Develop Best Practice Guidelines to reduce the impact of development on biodiversity
	9	Support LA housing estate communities to manage green areas in a biodiverse manner
	10	Develop and provide Teacher Training workshops on Biodiversity and nature based solutions
	11	Work with the Green Schools and Heritage in Schools programme to promote biodiversity and climate issues to students and the wider schools population
	12	Promote the development of nature based outdoor classrooms to reach Science Foundation Ireland or equivalent standard where possible
	13	Targeted education programmes for the farming community
	14	Collaborate and harness Environmental, Social, and Governance (ESG) in order collaborate with Corporate Bodies and Local Organisations where appropriate
	15	Host a series of capacity building biodiversity related events annually for general public
	16	Creation of high impact, true to life Biodiversity Murals in Limerick City and County.
B. Meet Urgent Conservation and	1	Identify Locally Important Biodiversity Sites (LIBS) in Limerick City and County according to Heritage Council guidelines. Ensure these are mapped and protected through inclusion of policies in the Limerick Development Plan, the review of which will commence in 2026 and local area plans.
	2	Provide pre-planning guidance document for biodiversity inclusion in all new and refurbished developments

Objective	Action Code	Action
Restoration Needs	3	Ring fence a percentage of development contribution specifically for biodiversity
	4	Develop a City or County -wide pollinator plan for Limerick in line with the AIPP
	5	Develop an LCCC Grassland Management Plan
	6	Develop and LCCC Dark Skies Policy to reduce unnecessary light pollution for inclusion in the Limerick Development Plan, the review of which will commence in 2026.
	7	LCCC will minimise compost with peat as an ingredient and actively source new peat free compost or generate their own.
	8	Continue to minimise and reduce the use of chemical pesticides and herbicides across council operations
	9	Undertake a mapping of all zoned lands to determine the extent of trees and hedgerows at the time of zoning and that this mapping is included in all area plans at draft stage and the Limerick Development Plan Review 2026.
	10	Investigate and pilot use of controlled Grazing on Council Land where appropriate
	11	Prioritise and Ecologically Survey and develop Management Plans Council owned lands
	12	Continue to determine risks to water quality via source pathway reception model on all planning applications.
	13	Work with the LCCC Planning to incorporate IFI's Planning Guide for Watercourses in the Urban Environment in LCCC decision making
	14	Set targets in line with LCCC Tree Policy to maintain existing LCCC woodlands in good condition and plant new native trees in urban and rural areas.
	15	Promote native/local provenance for trees, shrubs plants etc. and LCCC to include this as a criteria for procurement
	16	Support and collaborate on environmental and biodiversity projects as identified with external stakeholders
	17	Identify suitable nest box location on Council Lands for Barn Owls, Kestrels and other species identified by NPWS and liaise with local farming community organisations re same
	18	Promote the prevention of fragmentation of ecological corridors including hedgerows and riverine features
	19	Continue to work with LAWPRO (Local Authority Water Programme) and others to identify the impacts of critical and vulnerable receptors in accordance with the River Basin Management Plan and Water Framework Directive
	20	Support the efforts of LAWPRO and other parties to promote the reduction of chemical fertilizers on land.

Objective	Action Code	Action
	21	Support the implementation of Marine Spatial Plan and to protect the Shannon estuary in collaboration with Kerry and Clare local authorities.
	22	Advocate for responsible pet ownership
C. Secure Nature's Contribution to Current and Future Generations	1	Protect and enhance Biodiversity on all developments in Limerick including new, existing and refurbished developments along with Greenways, all infrastructural developments
	2	Increase awareness of the intrinsic value of biodiversity and the services it provides us with.
	3	Inline with LCCC Tree Policy increase the planting of suitable trees and hedgerows of local provenance
	4	Deliver a minimum of 2 case studies to combat pollution using Nature based solutions (NBS) and Sustainable Drainage Systems (SDS)
	5	Collaborate on programmes with the LCCC Arts Office, education, youth projects and others that emphasise Nature as a muse of the arts and culture
	5	Collaborate on education and research programmes that emphasise Natures positive impact on human well being
	6	Create info hub of where people can visit and immerse themselves in existing nature areas and show case river Shannon and its contribution and importance to biodiversity.
	7	Conduct well being surveys to capture impact of identified actions in certain circumstances
D. Enhance the Evidence Base for Action on Biodiversity	1	Carryout habitat surveys on council owned land and highlight areas at risk and identify areas suitable for restoration/enhancement and also identify potential wildlife corridors for protection through statutory plans
	2	Share data from all LCCC surveys with NPWS, Heritage Council and National Biodiversity Data Centre
	3	Support NPWS national surveys for data collection on all annex species.
	5	Investigate the development of an open source digital repository for Limerick Biodiversity Related Data subject to GDPR and wildlife sensitivity restraints
	6	Progress to Phase II of Limerick Wetland Survey
	7	Action the recommendations from 1. Newcastle West Demesne Ecological Survey 2024 and the Annual recommendations for the 2. Baggot Estate Management Plan 2023-50, 3. Westfields Management Plan and 4. Corbally Meadow Work Programme
	8	Compilation, centralisation and GIS mapping of existing data from assessments, reports and planning aps. Years 2023 - 2025

Objective	Action Code	Action
	9	Resurvey Limerick County Barn Owls, Swifts and Bat Roosts include desktop surveys for ground truthin.
	10	Promote Citizen Science Projects to gather evidence to aid in the collection of data which will be verified and collated on the NBDC website.
E. Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives	1	Promote National Biodiversity Data Centre species recording portal
	2	Develop integrated programme to address Invasive Alien Species including a) mapping, b) management protocol for public lands and c) guidelines for private lands and d) targeted education workshops.
	3	Continue to collaborate on Lesser Horseshoe Bat's national group and regional group.
	4	Engage with Inland Fisheries Ireland, Electricity Supply Board, Office of Public Works and other stakeholders to reverse decline in in riparian and riverine habitat which is home to many annex species such as Atlantic salmon, sea lamprey etc, including the removal and mitigation of barriers to fish movement in our rivers.
	5	Develop online resources to raise awareness of birdlife in the Shannon Estuary
	6	Promote seed saving of local plants and trees that support biodiversity within LCCC and with the general public
	7	Promote the protection of hedgerows and other trees which contribute to green infrastructure
	8	Update 2021 Bluesky Tree Cover Survey
	9	In line with LCCC Tree Policy identify and survey trees under the management of LCCC that are affected by Ash Die Back

2.2 Relationship with other relevant Plans and Programmes

The LABAP sits within a hierarchy of plans and has been informed by and is consistent with the aims and objectives of other plans, programmes and strategies developed at national, regional and local levels. These include, but are not limited to, the following:

National Level

- Project Ireland 2040 : National Planning Framework (2018).
- Heritage Ireland 2030: A Framework for Heritage (2022).
- Heritage Council Strategic Plan 2023-2028 (2023).
- The 4th National Biodiversity Plan 2023 - 2030 (2024) (discussed further in Section 2.1.1 below).
- Climate Action Plan (2024).

Regional and Local Level

- Regional Spatial and Economic Strategy for the region.
- The County Development Plan for the local authority functional area.
- The Local Authority Climate Action Plan for the local authority functional area.
- The Heritage Plan for the local authority functional area.

2.2.1 The 4th National Biodiversity Action Plan 2023-2030

Ireland's 4th National Biodiversity Action Plan (NBAP) sets the national biodiversity agenda for the period 2023-2030 and aims to deliver the transformative changes required to protect and value nature. The aim is to ensure that every citizen, community, business, local authority, semi-state and state agency has an awareness of biodiversity and its importance, and of the implications of its loss, while also understanding how they can act to address the biodiversity emergency as part of a renewed national effort to 'act for nature.' This plan provides the overarching arching framework for delivering biodiversity conservation through LABAPs.

This National Biodiversity Action Plan 2023-2030 builds upon the achievements of the previous Plan. The five overarching objectives to address new and emerging issues include the following:

- Objective 1 - Adopt a Whole of Government, Whole of Society Approach to Biodiversity
- Objective 2 - Meet Urgent Conservation and Restoration Needs
- Objective 3 - Secure Nature's Contribution to People
- Objective 4 - Enhance the Evidence Base for Action on Biodiversity
- Objective 5 - Strengthen Ireland's Contribution to International Biodiversity Initiatives

The NBAP contains actions pertaining to the preparation to LABAPs under *Objective One: Adopt a Whole-of-Government, Whole-of-Society Approach to Biodiversity* and *Objective Three: Secure Nature's Contribution to People*, including the following:

Table 2-2: NBAP Actions pertaining to the preparation to Local Biodiversity Plans

Action Number	Action
1C5	The Heritage Council will publish updated guidelines for the production of Local Biodiversity Action Plans and their integration with City and County Development Plans
1C6	All Local Authorities will have a Biodiversity Action Plan adopted by the end of 2026 which is subject to regular review and revision processes in line with relevant guideline standards
3A3	Local Authorities will work to identify and respond to opportunities for enhancing the biocultural value of GBUE through appropriate design strategies, the use of visual and performing arts, and enhancing equity of access and promoting use of GBUE by community groups, and integrating cultural services in local biodiversity action plans

Local Authorities are expected to align their LABAPs with national commitments defined in the NBAP to ensure a cohesive approach to biodiversity conservation across the country.

3. SCREENING FOR APPROPRIATE ASSESSMENT

3.1 Introduction to Screening

This section of the report examines if the plan is likely to have a significant effect upon European Sites from the plan, either alone or in combination with other projects or plans. The screening phase is progressed in the following stages. A series of questions are asked during the Screening Stage of the AA process in order to determine:

- Whether the plan or project introduces any sources of environmental or ecological impact
- Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European Site.
- Whether the plan or project will have a likely significant effect on a European Site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential effects.

Plans are screened out based on one or a combination of the following criteria:

- Where it can be shown that there are no sources of environmental impact associated with a plan or project.
- Where there are no pathways such as hydrological links between a plan or project area, and relevant European sites
- Where a European site is located at a distance from the plan or project area such that effects are not foreseen;
- Where known threats or vulnerabilities at a European site cannot be linked to potential effects that may arise from a plan or project.

3.2 Potential Interactions of the Proposed Plan on the receiving environment

Having regard to the European Commission (2021) guidance document and the OPR (2021) practice note, the potential impacts of the LABAP actions on the receiving environment at source are considered based (in Table 3.1) on the following criteria:

- Habitat destruction/fragmentation/deterioration;
- Surface water run-off carrying suspended silt and contaminants, into local watercourses;
- Changes to groundwater quality, yield and/or flow paths associated with the proposed project;
- Plan related activities (noise, vibration, lighting, human presence, structures, etc) leading to disturbance / displacement of species;
- Plan related activities leading to a reduction in species populations / density;
- Air pollution due to dust and other airborne emissions; and
- Disturbance and potential spread of invasive species

These impacts are further examined in defining the Zone of Influence (ZoI) of the plan to identify likely significant effects through the Source-Pathway-Receptor assessment (Section 3.3).

Table 3-1: Identification of sources arising from the proposed plan that have potential for interactions with the receiving environment

Objective	Action Code	Action	Potential Sources of Impact
A. Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity	1	Actively communicate good news Biodiversity Case Studies/Initiatives via the Council's Communication team	The action is centred around the dissemination of biodiversity-related news, which has the potential to stimulate interest and improve awareness within the community. It also holds further potential to mobilise community members towards protecting and enhancing biodiversity within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	2	Continue to host the Limerick Biodiversity Forum	The Limerick Biodiversity Forum provides an avenue for improving biodiversity-related expertise and knowledge across the community. The action therefore supports and promotes biodiversity-related awareness, which can underpin biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	3	Biodiversity Training for all in LCCC a) Decision Makers including b) elected representatives c) indoor and outdoor staff	This action promotes biodiversity related training. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	4	Include best practise Biodiversity Training requirement/standard in all council procurement processes	This action promotes biodiversity related training, in consideration of the best practice and expertise available. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	5	Invest /work with 3rd parties in demonstration sites to promote local biodiversity	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in the plan area. It will contribute to the effective delivery of the plan and biodiversity improvements generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	6	Ensure biodiversity is integrated into guidance document for LCCC grant initiatives	The integration of biodiversity into LCCC's funding opportunities can motivate applicants include biodiversity considerations within the application process. The overall outcome of this will be positive, as the action supports the protection and enhancement of biodiversity in the plan area, and generate positive effects on biodiversity components such as habitats and key species, in addition to interacting components such as the water and soils environments, air and climate, and population and human health. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	7	Work Actively with TT groups, NGOs and Faith Communities in relation to Biodiversity etc.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in the plan area. Faith communities can often own large areas of land such as churchyards and burial grounds, which serves as an opportunity to enhance biodiversity at these sites. The action will contribute to the effective delivery of the plan and biodiversity improvements generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	8	Develop Best Practice Guidelines to reduce the impact of development on biodiversity	This action supports the integration of biodiversity consideration and improvements within the land use framework and development planning process. It has the potential to contribute to the realization of positive effects on biodiversity. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	9	Support LA housing estate communities to manage green areas in a biodiverse manner	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in the plan area. It will contribute to the effective delivery of the plan and biodiversity improvements generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	10	Develop and provide Teacher Training workshops on Biodiversity and nature based solutions	This action promotes biodiversity and nature based solutions related training. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	11	Work with the Green Schools and Heritage in Schools programme to promote biodiversity and climate issues to students and the wider schools population	This action promotes biodiversity and climate related education. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	12	Promote the development of nature based outdoor classrooms to reach Science Foundation Ireland or equivalent standard where possible	This action promotes biodiversity related education. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	13	Targeted education programmes for the farming community	This action promotes biodiversity related education. It has the potential to improve biodiversity related expertise within the farming community and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	14	Collaborate and harness Environmental, Social, and Governance (ESG) in order collaborate with Corporate Bodies and Local Organisations where appropriate	The ESG sphere can provide an opportunity for enhancing biodiversity through partnerships between local organisations and corporate bodies, for example through Corporate Social Responsibility (CSR) initiatives. The action has the potential to generate positive effects on biodiversity components (habitats and key species), and co-benefits for any interacting environmental components (the soils and water environments, air and climate, and population and human health). The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	15	Host a series of capacity building biodiversity related events annually for general public	This action will promote awareness of biodiversity and biodiversity related initiatives. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community.

Objective	Action Code	Action	Potential Sources of Impact
			The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	16	Creation of high impact, true to life Biodiversity Murals in Limerick City and County.	This action will promote awareness of biodiversity and biodiversity related initiatives. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
B. Meet Urgent Conservation and Restoration Needs	1	Identify Locally Important Biodiversity Sites (LIBS) in Limerick City and County according to Heritage Council guidelines. Ensure these are mapped and protected through inclusion of policies in the Limerick Development Plan, the review of which will commence in 2026 and local area plans.	The action is aimed at the identification and protection of any significant sites within the plan area that support local biodiversity. This is proposed to be done in alignment with Heritage Council guidelines and through policy design within the Limerick Development Plan and Lower-Order Area Plans. The action will contribute to the realisation of positive effects on biodiversity and other interacting environmental receptors. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	2	Provide pre-planning guidance document for biodiversity inclusion in all new and refurbished developments	The action supports the integration of biodiversity considerations and improvements within the plan area through the land-use framework and development planning process. It has the potential to contribute to the realisation of positive effects on biodiversity and other interacting environmental receptors. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	3	Ring fence a percentage of development contribution specifically for biodiversity	The action supports the integration of biodiversity considerations and improvements within the plan area through the land-use framework and development planning process. It has the potential to contribute to the realisation of positive effects on biodiversity and other interacting environmental receptors. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	4	Develop a City or County -wide pollinator plan for Limerick in line with the AIPP	This action is aimed at protecting and enhancing pollinators in the plan area. It has the potential to generate positive effects on biodiversity components, such as habitats and key species, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	5	Develop an LCCC Grassland Management Plan	Grassland (both managed and natural) comprises a large percentage of Limerick's landcover. The action will support the protection and enhancement of these habitats through the use of a cohesive and focused management plan. This will have positive effects on biodiversity components, such as habitats and key species and other interacting environmental receptors (soils and water, and air and climate). The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	6	Develop and LCCC Dark Skies Policy to reduce unnecessary light pollution for inclusion in the Limerick Development Plan, the review of which will commence in 2026.	Light pollution presents a threat to light-sensitive, nocturnal species inhabiting in or around urban or peri-urban settlements. The development of an LCCC Dark Skies Policy will have positive effects on the local wildlife which require natural darkness, and as per Dark Sky Ireland's findings, potentially positively impact population and human health, cultural heritage and tourism and recreation. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	7	LCCC will minimise compost with peat as an ingredient and actively source new peat free compost or generate their own.	This action supports the reduction of peat harvesting which results in peatland degradation and removal of vegetation. This will serve to maintain and enhance existing levels of biodiversity within the plan area. It does not have the potential to generate any negative environmental effects. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	8	Continue to minimise and reduce the use of chemical pesticides and herbicides across council operations	This action supports the prevention and reduction of pollution that may affect biodiversity components in the plan area. It is inherently positive in nature. It has the potential to generate positive effects on biodiversity components, such as habitats and key species, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	9	Undertake a mapping of all zoned lands to determine the extent of trees and hedgerows at the time of zoning and that this mapping is included in all area plans at draft stage and the Limerick Development Plan Review 2026.	This action supports the integration of biodiversity consideration and improvements within the land use framework and development planning process. It has the potential to contribute to the realization of positive effects on biodiversity, as well as co-benefits for other environmental components, through the conservation of treelines and hedgerows supporting local wildlife. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	10	Investigate and pilot use of controlled Grazing on Council Land where appropriate	The management of forage with grazing animals through controlled grazing has the potential to improve sward quality by preserving good soil structure and minimising soil compaction. Controlled grazing has the potential to result in the enhancement of the ecosystem through reduced fertiliser and herbicide applications, fewer weeds, and environmentally sustainable grazing areas. This action therefore has the potential to result in positive effects on biodiversity and other interacting components such as soils, water, and air and climate. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	11	Prioritise and Ecologically Survey and develop Management Plans Council owned lands	Management Plans for Council-owned lands will ensure the appropriate protection for these sites and their natural and ecological assets. These plans will be subject to their own separate screening for Apporpriate Assessment. The action has the potential to result in positive effects on biodiversity. In isolation, the action proposes the prioritisation and development of Management (As opposed to the implementation of comprising actions, which will be subject to its own assessments). The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	12	Continue to determine risks to water quality via source pathway reception model on all planning applications.	This action supports the integration of biodiversity consideration and improvements within the land use framework and development planning process. It has the potential to contribute to the realization of positive effects on biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	13	Work with the LCCC Planning to incorporate IFI's Planning Guide for Watercourses in the Urban Environment in LCCC decision making	This action supports the integration of biodiversity consideration and improvements within the land use framework and development planning process. It has the potential to contribute to the realization of positive effects on biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	14	Set targets in line with LCCC Tree Policy to maintain existing LCCC woodlands in good condition and plant new native trees in urban and rural areas.	This action promotes woodland protection and the use of native species in the plan area. The promotion of native species of local provenance has the potential contribute to ecological diversity and sustainability. This action also supports biodiversity enhancement and protection, as well as carbon sequestration, having positive effects for biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	15	Promote native/local provenance for trees, shrubs plants etc. and LCCC to include this as a criteria for procurement	This action promotes the use of native plant species in the plan area. The promotion of native species of local provenance has the potential contribute to ecological diversity and sustainability. This action has the potential to have positive effects for biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	16	Support and collaborate on environmental and biodiversity projects as identified with external stakeholders	This action supports the creation of a collaborative approach between the local authority and external stakeholders, to the implementation of biodiversity initiatives and contribution to the overall enhancement of existing biodiversity in the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	17	Identify suitable nest box location on Council Lands for Barn Owls, Kestrels and other species identified by NPWS and liaise with local farming community organisations re same	This action will support the conservation of Barn Owls and other key species present in the plan area and connected areas. It has the potential to generate a positive effects for this key species and for biodiversity generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	18	Promote the prevention of fragmentation of ecological corridors including hedgerows and riverine features	This action supports the prevention of land-take causing habitat fragmentation. It is inherently positive in nature. It has the potential to generate positive effects on biodiversity components, such as habitats and key species, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	19	Continue to work with LAWPRO (Local Authority Water Programme) and others to identify the impacts of critical and vulnerable receptors in accordance with the River Basin Management Plan and Water Framework Directive	This action supports continued compliance with the Water Framework Directive. This action will be supportive of water quality and associated biodiversity improvements. This action will improve water quality and biodiversity. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	20	Support the efforts of LAWPRO and other parties to promote the reduction of chemical fertilizers on land.	This action has the potential to lead to positive effects on important habitats and species, water quality and the climate. Limiting the use of chemical fertilisers would prevent, to a degree, the occurrence of environmental pollution incidents due to the use of these substances. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	21	Support the implementation of Marine Spatial Plan and to protect the Shannon estuary in collaboration with Kerry and Clare local authorities.	This action supports the Marine Spatial Plan and the projects included therein. This action has the capacity to positive lead to water quality, biodiversity, and climate change benefits. The Marine Spatial Plan will be subject to its own SEA and AA. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	22	Advocate for responsible pet ownership	Pet ownership requires consideration in the context of local biodiversity, as untrained/unrestrained pets may predate on local wildlife. The introduction of exotic pets in native natural ecosystems can also lead to negative interactions by competing for resources or introducing and spreading diseases. The action therefore is aimed at the protection of local biodiversity, and does not have the potential to generate any negative environmental effects in and of itself. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
C. Secure Nature's Contribution to Current and Future Generations	1	Protect and enhance Biodiversity on all developments in Limerick including new, existing and refurbished developments along with Greenways, all infrastructural developments	This action is aimed at protecting and enhancing biodiversity through integration of biodiversity considerations in any developmental works undertaken in the plan area, particularly in areas that contain existing green infrastructure. It has the potential to generate positive effects on biodiversity components, such as habitats and key specie, as well as co-benefits for other environmental components. The action will not result in any likely significant effects on European Sites The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	2	Increase awareness of the intrinsic value of biodiversity and the services it provides us with.	This action will promote awareness of biodiversity and biodiversity related initiatives. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	3	Inline with LCCC Tree Policy increase the planting of suitable trees and hedgerows of local provenance	This action promotes the use of native species in the plan area. The promotion of native species of local provenance has the potential contribute to ecological diversity and sustainability. This action has the potential to have positive effects for biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	4	Deliver a minimum of 2 case studies to combat pollution using Nature based solutions (NBS) and Sustainable Drainage Systems (SDS)	This action promotes biodiversity-related education through case studies focused on nature-based, sustainable infrastructure and their potential in combating pollution. It has the potential to improve biodiversity-related expertise and underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	5	Collaborate on programmes with the LCCC Arts Office, education, youth projects and others that emphasise Nature as a muse of the arts and culture	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in the plan area. It will contribute to the effective delivery of the plan and biodiversity improvements generally, in addition to contributing to cultural heritage through the creation of art oriented around nature narratives. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	5	Collaborate on education and research programmes that emphasise Natures positive impact on human well being	This action promotes biodiversity-related education, particularly in relation to the positive impacts it has on human wellbeing. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area, in consideration of the human impact. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	6	Create info hub of where people can visit and immerse themselves in existing nature areas and show case river Shannon and its contribution and importance to biodiversity.	This action promotes non-intensive, passive engagement with nature areas. It has the potential to improve people's awareness and understanding of biodiversity and nature. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	7	Conduct well being surveys to capture impact of identified actions in certain circumstances	The action proposes surveying participants within the plan area to measure well-being impacts of formerly proposed biodiversity actions. This can underpin and support the effective implementation of the plan and potentially lead to more focussed and targeted biodiversity improvements. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
D. Enhance the Evidence Base for Action on Biodiversity	1	Carryout habitat surveys on council owned land and highlight areas at risk and identify areas suitable for restoration/enhancement and also identify potential wildlife corridors for protection through statutory plans	This action proposes the carrying out of baseline ecological surveying in the plan area. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	2	Share data from all LCCC surveys with NPWS, Heritage Council and National Biodiversity Data Centre	This action will create and foster a collaborative approach to improving biodiversity in the plan area by increasing knowledge and expertise and information sharing. It will contribute to the effective delivery of the plan and biodiversity improvements generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	3	Support NPWS national surveys for data collection on all annex species.	This action will support the conservation of key species present in the plan areas and connected areas, through baseline ecological surveys. This has the potential to result in positive effects for these species and underpin the effective implementation of the plan, potentially leading to focused and targeted biodiversity improvements. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	5	Investigate the development of an open source digital repository for Limerick Biodiversity Related Data subject to GDPR and wildlife sensitivity restraints	The action is centred around the development of a digital data repository, which has the potential to improve upon biodiversity-related expertise and knowledge. This is in turn has the potential to underpin and support biodiversity improvements within the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	6	Progress to Phase II of Limerick Wetland Survey	This action proposes the carrying out of baseline ecological surveying in the plan area. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. The action will not result in any likely significant effects on European Sites The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	7	Action the recommendations from 1. Newcastle West Demesne Ecological Survey 2024 and the Annual recommendations for the 2. Baggot Estate Management Plan 2023-50, 3. Westfields Management Plan and 4. Corbally Meadow Work Programme	This action is aimed at protecting and enhancing biodiversity in the areas of Newcastle West Demesne, Baggot Estate, Westfields Wetland and Corbally Meadow. These plans are subject to their own separate screening for Appropriate Assessment. The action has the potential to generate positive effects on biodiversity components, such as habitats and key species, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	8	Compilation, centralisation and GIS mapping of existing data from assessments, reports and planning aps. Years 2023 - 2025	This action aims to implement biodiversity improvements in the plan area utilising most recent and up-to-date available data. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	9	Resurvey Limerick County Barn Owls, Swifts and Bat Roosts include desktop surveys for ground truthin.	This action proposes the carrying out of baseline ecological surveying in the plan area. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	10	Promote Citizen Science Projects to gather evidence to aid in the collection of data which will be verified and collated on the NBDC website.	This action will promote awareness of biodiversity and biodiversity related initiatives. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
E. Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives	1	Promote National Biodiversity Data Centre species recording portal	This action will support the recording and conservation of key species present in the plan area and connected areas. It has the potential to generate a positive effects for this key species and for biodiversity generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	2	Develop integrated programme to address Invasive Alien Species including a) mapping, b) management protocol for public lands and c) guidelines for private lands and d) targeted education workshops.	This action will prevent and minimise the spread of invasive species in the plan area. This action has the potential to have positive effects for biodiversity, such as native species and habitats, that are at risk due to invasive species spread. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	3	Continue to collaborate on Lesser Horseshoe Bat's national group and regional group.	This action will support the conservation of a key species present in the plan area and connected areas. It has the potential to generate a positive effects for this key species and for biodiversity generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	4	Engage with Inland Fisheries Ireland, Electricity Supply Board, Office of Public Works and other stakeholders to reverse decline in in riparian and riverine habitat which is home to many annex species such as Atlantic salmon, sea lamprey etc, including the removal and mitigation of barriers to fish movement in our rivers.	This action will support the conservation of Atlantic Salmon present in the plan area and connected areas. It has the potential to generate a positive effects for this key species and for biodiversity generally. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

Objective	Action Code	Action	Potential Sources of Impact
	5	Develop online resources to raise awareness of birdlife in the Shannon Estuary	The Shannon Estuary is designated as a Special Protection Area (River Shannon and River Fergus SPA) for conservation of wild birds (under the EU Birds Directive). Birdlife within this area include various species that are under threat such as the Eurasian curlew and the Black-tailed Godwit. The Shannon Estuary is an important site for wintering and migrating birds, supporting species of both international and national importance. The action is aimed at the improving awareness of the biodiversity at this site, which has potential for contributing to biodiversity improvements in general. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	6	Promote seed saving of local plants and trees that support biodiversity within LCCC and with the general public	Seed saving projects or seed banks can preserve plant species that are threatened by invasive species, monoculture crops or climate change. The action is aimed at the conservation of native plant species of local provenance within the plan area to preserve species diversity. It has the potential to result in positive effects for biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	7	Promote the protection of hedgerows and other trees which contribute to green infrastructure	This action supports the protection and enhancement of hedgerows in the plan area. Hedgerows are an integral biodiversity feature in the plan area and act as important habitat and ecological corridors. This action has the potential to have positive effects for biodiversity, as well as co-benefits for other environmental components. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	8	Update 2021 Bluesky Tree Cover Survey	The Bluesky Tree Cover Map is a UK/ROI dataset that captures data pertaining to tree heights, location, canopy extents of trees, including clusters that may amount to woodlands and forests. This geospatial data can support local authorities in decision-making and designing biodiversity initiatives.

Objective	Action Code	Action	Potential Sources of Impact
			The action, in isolation, supports the enhancement of biodiversity in the plan area and will generate positive effects on biodiversity components (habitats and key species). The action, in and of itself, wil not generate a source of negative impact on the receiving environment.
	9	In line with LCCC Tree Policy identify and survey trees under the management of LCCC that are affected by Ash Die Back	The action is aimed at the identification of ash trees within the plan area that have been affected by Ash Dieback, an infection caused by an invasive fungal pathogen (Hymenoscyphus fraxineus). Ash dieback is a common threat to amenity trees and can render them structurally unsound, which runs the risk of property damage and personal injury. This therefore requires identification and intervention for affected trees and prevent further spread of the diseases. The action will support biodiversity by enabling targeted and focused interventions in the plan area. The action, in and of itself, wil not generate a source of negative impact on the receiving environment.

3.2.1 Summary of the interactions of the Proposed Plan on the receiving environment

The LABAP provides a general framework for biodiversity protection and enhancement on lands in the plan area. It defines the biodiversity actions that support and promote:

- Best practice biodiversity management and improvement,
- Local authority biodiversity protection and enhancement initiatives,
- The improvement of biodiversity on local authority controlled lands,
- Biodiversity training and awareness events,
- Biodiversity education and training,
- Planting of native species (i.e. trees, shrubs, plants etc.)
- Ecological surveying and mapping to identify areas of risk from threats and pressure and areas for targeted biodiversity protection/enhancement action,
- Collaborating with key stakeholders and the public to achieve biodiversity aims.

The range of actions defined in the LABAP have the potential to have a range of, positive environmental effects on biodiversity, including habitats, key species, designated sites and locally important non-designated sites.

All actions in the LABAP are aimed at protecting and enhancing biodiversity. They have been carefully reviewed and it has been concluded that these actions do not have the potential to have unintended negative effects on the receiving environment.

The actions in the LABAP do not support intensive land use or development projects sitting outside the land use planning framework that can cause significant negative environmental effects. The LABAP will not in and of itself set the context for future development consent. There is no real likelihood of significant negative environmental effects occurring as result of the implementation of the LABAP.

The implementation of the LABAP will not introduce any sources of negative environmental impact, such as

- Land take;
- Resource Requirements (Drinking Water Abstraction Etc.);
- Emissions (Disposal to Land, Water or Air);
- Excavation Requirements;
- Transportation Requirements;
- Construction, Operation, Decommissioning.

The LABAP will not introduce any source of negative environmental impact which could result in or contribute to the following types of negative effect on a European site:

- Reduction of habitat area, habitat degradation or fragmentation;
- Disturbance to species, reduction in species populations and density;
- Changes in ecological functions and/or features that are essential for the ecological requirements of habitats and species (e.g. water quality and quantity);
- Interference with the key relationships that define the structure and function of the site.

The implementation of the LABAP will not result in any source of negative environmental impacts that may combine with effects occurring due to other plans or projects to create an 'in-combination' significant effect on a European site.

It is clear the LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.

3.3 European Sites within the Zone of Influence (ZoI)

The OPR (2021) AA Screening practice note states that the Zone of Influence must be established on a case-by-case basis using the Source-Pathway-Receptor model. The S-P-R model has been used to identify the ZoI to ensure that relevant European sites are identified. The S-P-R model minimises the risk of overlooking distant or obscure effect pathways, while also avoiding an over reliance on buffer zones (e.g. 15 km), within which all European sites should be considered. This approach follows the DoEHLG (2009 rev 2010) guidance on AA which states that:

> *"For projects, the distance could be much less than 15 km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects"*

As detailed in section 1.5, in order for an effect to occur, all three elements of this mechanism must be in place. The absence of one of the elements of the mechanism means there is no likelihood for the effect to occur. The potential impacts of the plan are set out in Section 3.2 of this report. The impact is essentially the 'source' in the S-P-R model.

These impacts may be very localised and confined to defined area with no potential connectivity to a European site and therefore no potential for effects. Alternatively, where an ecological or functional pathway exists they may give rise to a potential effect to a Qualifying Interest of a European site.

The dominant ecological pathways to consider are:

- Direct physical interactions or changes to the local environment;
- Air dispersal (noise, dust, odour emissions etc.);
- Hydrological interactions; and
- Dispersal patterns of mobile species

Based on the precautionary principal, the Zone of Influence of the proposed plan has been defined as:

- All European sites locally either solely or partially in County Limerick
- All hydrologically connected European Sites to waterbodies within County Limerick ; and
- All European sites within a 15km buffer of County Limerick

All European sites within the Zone of Influence of the Plan area or which are connected to the Plan area ecologically, hydrologically or through hydrogeology have been identified - having appropriate regard to the interaction criteria defined in Section 1.5.

A map showing these European sites in or connected to the plan area is presented in Figure 3-1. Background information on these European sites is presented in Appendix 1, including:

- Quality and site characteristics of European sites considered in the assessment.
- Background data for European sites considered in the assessment; including the Qualifying features (Qualifying Interests or Special Conservation Interests) and the known threats and pressures as recorded by the National Parks and Wildlife Services.
- Known threats and pressures related to the qualifying interests from each Special Area of Conservation as per article 17 reporting from the National Parks and Wildlife Services.
- Known threats and pressures related to the qualifying interests from each Special Protection Area as per article 17 reporting from the National Parks and Wildlife Services.

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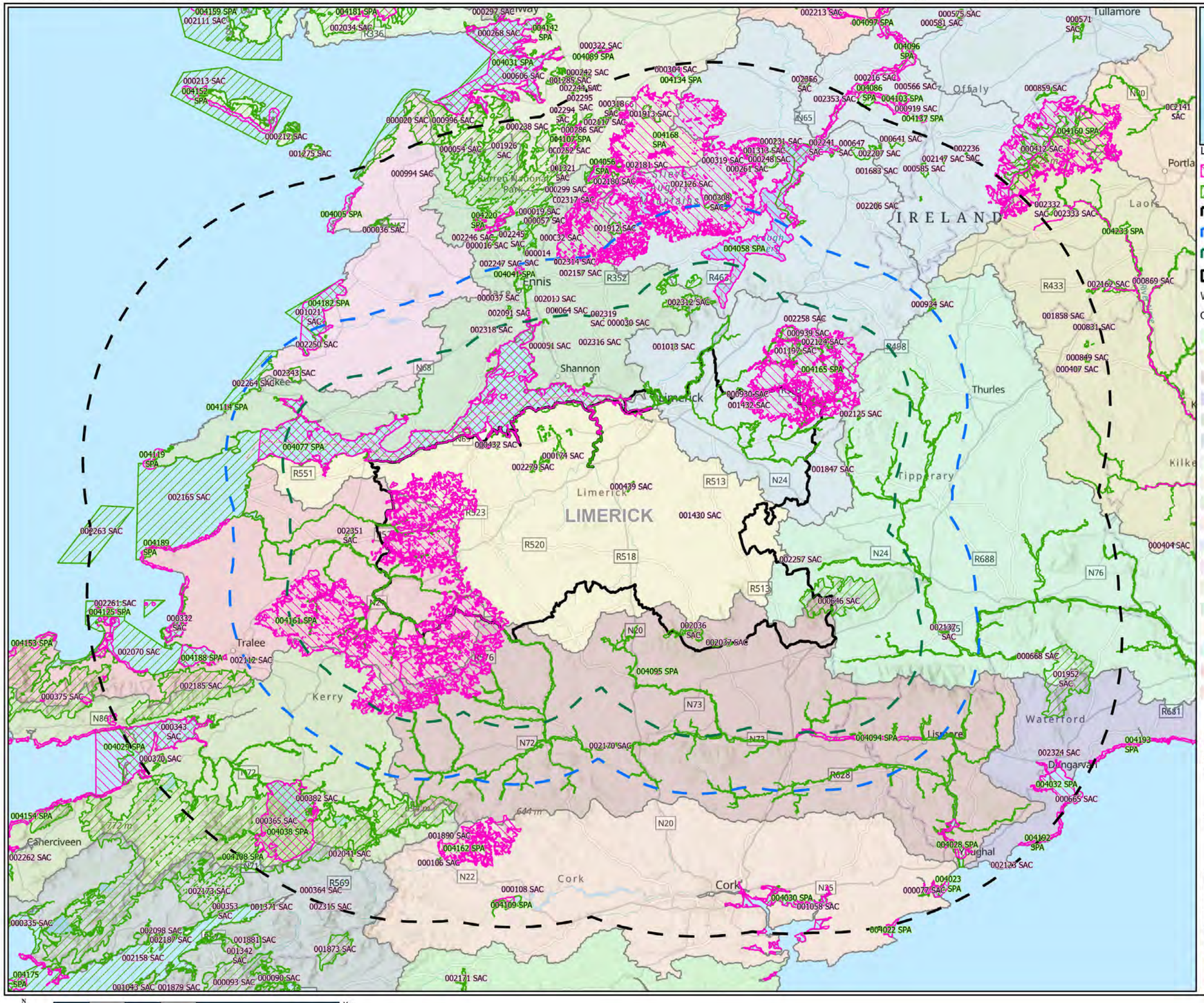

Note: A full list of European sites within, overlapping or connected to the Plan Area is provided in Screening for Appropriate Assessment section of this document.

TITLE: European sites with connectivity to the Plan area			
PROJECT: Limerick Local Authority Biodiversity Action Plan			
FIGURE NO:	3.1		
CLIENT:	Limerick City and County Council'		
SCALE:	1:650,000	**REVISION:**	0
DATE:	9/27/2024	**PAGE SIZE:**	A3

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3.4 Consideration of in-combination Effects with other plans or projects

Article 6(3) of the Habitats Directive requires that:

> *"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives".*

It is therefore required that the likely significant effects of the plan are considered in-combination with other plans or projects within the zone of influence.

The consideration of in-combination effects with other plans or projects, focused on the sources of impacts identified for the plan in Section 3.2. The principal plans that are related to the LABAP are defined in Section 2-2.

The LABAP is in harmony and consistent with all inter-related plans, including land use plans relevant to the plan area, higher order heritage related plans, the Local Authority Climate Action Plan, the national Climate Action Plan and the 4th National Biodiversity Action Plan. The range of positive effects that may be realised by the implementation of the LABCAP have the potential to interact and combine with positive effects associated with biodiversity measures defined in these inter-related plans to create larger, more significant positive effects.

All actions in the LABAP are aimed at protecting and enhancing biodiversity. The implementation of the LABAP will not give rise to likely significant negative effects on the environment that have the potential to interact and combine with negative effects associated with measures defined in these inter-related plans or projects to create larger, more significant negative effects.

The Plan does not therefore have any potential to contribute to in-combination likely significant effects on European sites that may occur due to the wider implementation of inter-related plans or projects.

3.5 Assessment of Likely Significant Effects

Table 3-2 examines whether there is potential for effects on identified European sites considering information provided above and the background information on the relevant European sites provided in Appendix 1.

Table 3-2: Identification of European Sites within the Zone of Influence of the Draft Plan

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
000174	Curraghchase Woods SAC	0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Taxus baccata woods of the British Isles [91J0], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
000432	Barrigone SAC	0	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Marsh Fritillary (Euphydryas aurinia) [1065], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
000439	Tory Hill SAC	0	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Alkaline fens [7230]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
000646	Galtee Mountains SAC	0	Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Siliceous rocky slopes with chasmophytic vegetation [8220], Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Alpine and Boreal heaths [4060], Calcareous rocky slopes with chasmophytic vegetation [8210], Blanket bogs * if active bog [7130]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
000930	Clare Glen SAC	0	Killarney fern (Trichomanes speciosum) [1421], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
001430	Glen Bog SAC	0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
001432	Glenstal Wood SAC	0	Killarney fern (Trichomanes speciosum) [1421]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002036	Ballyhoura Mountains SAC	0	Blanket bogs * if active bog [7130], Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
002037	Carrigeenamronety Hill SAC	0	European dry heaths [4030], Killarney fern (Trichomanes speciosum) [1421]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002165	Lower River Shannon SAC	0	Otter (Lutra lutra) [1355], Sandbanks which are slightly covered by sea water all the time [1110], Mudflats and sandflats not covered by seawater at low tide [1140], River lamprey (Lampetra fluviatilis) [1099], Sea lamprey (Petromyzon marinus) [1095], Reefs [1170], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Brook lamprey (Lampetra planeri) [1096], Atlantic salmon (Salmo salar) [1106], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Estuaries [1130], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410],	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
			Salicornia and other annuals colonising mud and sand [1310], Mediterranean salt meadows (Juncetalia maritimi) [1410], Perennial vegetation of stony banks [1220], Bottlenose dolphin (Tursiops truncatus) [1349], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Large shallow inlets and bays [1160], Coastal lagoons [1150]				
002170	Blackwater River (Cork/Waterford) SAC	0	Sea lamprey (Petromyzon marinus) [1095], Mediterranean salt meadows (Juncetalia maritimi) [1410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Salicornia and other annuals colonising mud and sand [1310], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Killarney fern (Trichomanes speciosum) [1421], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Twaite shad (Alosa fallax) [1103], Otter (Lutra lutra) [1355], Brook lamprey (Lampetra planeri) [1096], Atlantic salmon (Salmo salar) [1106], Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
			[1330], River lamprey (Lampetra fluviatilis) [1099], Mudflats and sandflats not covered by seawater at low tide [1140], Perennial vegetation of stony banks [1220], White-clawed crayfish (Austropotamobius pallipes) [1092], Estuaries [1130], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]				
002279	Askeaton Fen Complex SAC	0	Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	The European Site is located within the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
004077	River Shannon and River Fergus Estuaries SPA	0	Greenshank (Tringa nebularia) [A164], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Knot (Calidris canutus) [A143], Golden Plover (Pluvialis apricaria) [A140], Redshank (Tringa totanus) [A162], Pintail (Anas acuta) [A054], Cormorant (Phalacrocorax carbo) [A017], Lapwing (Vanellus vanellus) [A142], Whooper Swan (Cygnus cygnus) [A038], Shoveler (Anas clypeata) [A056], Grey Plover (Pluvialis squatarola) [A141],	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
			Curlew (Numenius arquata) [A160], Wetland and Waterbirds [A999], Ringed Plover (Charadrius hiaticula) [A137], Black-headed Gull (Chroicocephalus ridibundus) [A179], Scaup (Aythya marila) [A062], Teal (Anas crecca) [A052], Wigeon (Anas penelope) [A050], Black-tailed Godwit (Limosa limosa) [A156], Bar-tailed Godwit (Limosa lapponica) [A157], Dunlin (Calidris alpina) [A149], Shelduck (Tadorna tadorna) [A048]				
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	0	Hen harrier (Circus cyaneus) [A082]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
004165	Slievefelim to Silvermines Mountains SPA	0	Hen harrier (Circus cyaneus) [A082]	The European Site overlaps with the Limerick City & County LABAP area. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
002257	Moanour Mountain SAC	1.34	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030]	There is a separation distance of approximately 1.34 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002137	Lower River Suir SAC	1.72	Otter (Lutra lutra) [1355], Taxus baccata woods of the British Isles [91J0], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Twaite shad (Alosa fallax) [1103], Atlantic salmon (Salmo salar) [1106], Mediterranean salt meadows (Juncetalia maritimi) [1410], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260],	There is a separation distance of approximately 1.72 km between this European Site and the area of Limerick City & County LABAP, and a hydrological connection of 2 km (in-stream distance) is present. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
			White-clawed crayfish (Austropotamobius pallipes) [1092], Brook lamprey (Lampetra planeri) [1096], Sea lamprey (Petromyzon marinus) [1095], Freshwater pearl mussel (Margaritifera margaritifera) [1029], River lamprey (Lampetra fluviatilis) [1099]				
001847	Philipston Marsh SAC	3.87	Transition mires and quaking bogs [7140]	There is a separation distance of approximately 3.87 km between this European Site and the area of Limerick City & County LABAP and a potential groundwater connection is present. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002351	Moanveanlagh Bog SAC	3.98	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	There is a separation distance of approximately 3.98 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
001013	Glenomra Wood SAC	4.47	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	There is a separation distance of approximately 4.47 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
001197	Keeper Hill SAC	4.65	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130]	There is a separation distance of approximately 4.65 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002125	Anglesey Road SAC	5.96	Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	There is a separation distance of approximately 5.96 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
004095	Kilcolman Bog SPA	6.21	Whooper Swan (Cygnus cygnus) [A038], Shoveler (Anas clypeata) [A056], Wetland and Waterbirds [A999], Teal (Anas crecca) [A052]	This European Site is within 15km of the area of Limerick City & County LABAP which is within the known foraging range of the SCI species. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002312	Slieve Bernagh Bog SAC	6.73	European dry heaths [4030], Blanket bogs * if active bog [7130], Northern Atlantic wet heaths with Erica tetralix [4010]	There is a separation distance of approximately 6.73 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
004058	Lough Derg (Shannon) SPA	7.17	Wetland and Waterbirds [A999], Common tern (Sterna hirundo) [A193], Goldeneye (Bucephala clangula) [A067], Cormorant (Phalacrocorax carbo) [A017], Tufted Duck (Aythya fuligula) [A061]	This European Site is within 15km of the area of Limerick City & County LABAP which is within the known foraging range of the SCI species. Therefore, there is a pathway for potential effects. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
002258	Silvermines Mountains West SAC	8.2	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Calaminarian grasslands of the Violetalia calaminariae [6130]	There is a separation distance of approximately 8.2 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
000051	Lough Gash Turlough SAC	8.74	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	There is a separation distance of approximately 8.74 km between this European Site and the area of Limerick City & County LABAP and a potential groundwater connection is present. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002124	Bolingbrook Hill SAC	9.25	European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	There is a separation distance of approximately 9.25 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
002316	Ratty River Cave SAC	9.63	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	There is a separation distance of approximately 9.63 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
000939	Silvermine Mountains SAC	9.68	Northern Atlantic wet heaths with Erica tetralix [4010], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	There is a separation distance of approximately 9.68 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
000030	Danes Hole, Poulnalecka SAC	11.49	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Caves not open to the public [8310]	There is a separation distance of approximately 11.49 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
002319	Kilkishen House SAC	13.84	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	There is a separation distance of approximately 13.84 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002318	Knockanira House SAC	14.01	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	There is a separation distance of approximately 14.01 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
004094	Blackwater Callows SPA	14.43	Whooper Swan (Cygnus cygnus) [A038], Wigeon (Anas penelope) [A050], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Wetland and Waterbirds [A999]	There is a separation distance of approximately 14.43 km between this European Site and the area of the Limerick LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
000064	Poulnagordon Cave (Quin) SAC	14.97	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	There is a separation distance of approximately 14.97 km between this European Site and the area of Limerick City & County LABAP. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
004028	Blackwater Estuary SPA	37.3	Black-tailed Godwit (Limosa limosa) [A156], Wigeon (Anas penelope) [A050], Bar-tailed Godwit (Limosa lapponica) [A157], Dunlin (Calidris alpina) [A149], Redshank (Tringa totanus) [A162], Wetland and Waterbirds [A999], Golden Plover (Pluvialis apricaria) [A140], Lapwing (Vanellus vanellus) [A142], Curlew (Numenius arquata) [A160]	There is a separation distance of approximately 37.3 km between this European Site and the area of Limerick City & County LABAP, and a hydrological connection of 77.6 km (in-stream distance) is present. The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.	No	No	No likely significant effects
002162	River Barrow and River Nore SAC	44.1	Freshwater pearl mussel (Margaritifera margaritifera) [1029], Killarney fern (Trichomanes speciosum) [1421], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Mediterranean salt meadows (Juncetalia maritimi) [1410], Petrifying springs with tufa formation	There is a separation distance of approximately 44.1 km between this European Site and the area of Limerick City & County LABAP, and a hydrological connection of 123.8 km (in-stream distance) is present.	No	No	No likely significant effects

Site Code	Site Name	Distance (km)	Qualifying Feature (Qualifying Interests and Special Conservation Interests)	Potential Effects	Pathway for Significant Effects	Potential for In-Combination Effects	Likely Significant Effect / No Likely Significant Effect
			(Cratoneurion) [7220], Nore Pearl Mussel (Margaritifera durrovensis) [1990], Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Otter (Lutra lutra) [1355], River lamprey (Lampetra fluviatilis) [1099], Brook lamprey (Lampetra planeri) [1096], Estuaries [1130], White-clawed crayfish (Austropotamobius pallipes) [1092], Sea lamprey (Petromyzon marinus) [1095], Atlantic salmon (Salmo salar) [1106], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], European dry heaths [4030], Reefs [1170], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Twaite shad (Alosa fallax) [1103]	The LABAP will not generate any source of negative environmental impact that may result in a negative effect on any European site.			

4. DRAFT PLAN AMENDMENTS

This document is consolidated version of the AA Screening Report which has been updated in consideration of amendments that were made to the original Draft Plan.

These Plan amendments arising from the consultation submissions and post-consultation Plan-making process have been subject to further SEA Screening assessment. This assessment is presented in Appendix 2 of this document.

The amendments to the Draft Plan are either neutral, or have the potential to generate a range of positive environmental effects on biodiversity. The amendments have been carefully reviewed and it has been assessed that they do not have the potential to result in unintended negative effects on the receiving environment, largely due to their positive nature and the absence of a source of any negative impacts.

Therefore, it is clear that the amendments to the Draft Plan will not generate any likely significant effects on any European Site.

5. SCREENING CONCLUSION

This report presents an examination of whether the LABAP, inclusive of the Draft Plan actions and amendments, is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is based on best available scientific knowledge. This report has been prepared to inform the competent authority in completing their statutory obligations in relation to Appropriate Assessment, as required by Article 6(3) under Council Directive 92/43/EEC (Habitats Directive).

It can be concluded beyond reasonable scientific doubt, in view of best scientific knowledge, on the basis of objective information, that the plan, individually or in combination with other plans and projects, is not likely to have a significant effect on European sites. The principal reasons for this are as follows:

- The LABAP does not introduce any source of impacts that have potential for interactions with the receiving environment.
- All actions in the LABAP are aimed at protecting and enhancing biodiversity. There is no requirement to integrate further environmental considerations into the LABAP given its intrinsic nature, its stated aims and objectives, and the potential positive effects associated with its actions.
- The LABAP is in alignment with nature legislation and higher order policy such as the 4th National Biodiversity Action Plan and inter-related plans and programmes.
- The actions in the LABAP do not support intensive land use or development projects sitting outside the land use planning framework that can cause likely significant negative environmental effects.
- The LABAP is not a statutory land use plan. The LABAP will not in and of itself set the context for future development consent.

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APPENDIX 1

Background Information on European Sites

Appendix 1 - Table 1: Quality and site characteristics of European sites considered in the assessment

Site Code	Site Name	Quality of Site	Other Site Characteristics
000030	Danes Hole Poulnalecka SAC	The site contains a small though significant natural limestone cave. As this site contains 250 Lesser Horseshoe Bats (Rhinolophus hipposideros) it is a site of international importance. It is also important as it lies along the eastern limit for the distribution of this species in Ireland. The site also supports a stand of Old Oak woodland.	This site consists of a small fossil limestone cave in the banks of a tributary to the River Ahaclare west of Broadford Co. Clare. The cave is approximately 50 m long and 2-3m wide. The passage is at times quite low. The cave ends in a sump. There is no sign that this water floods other parts of the cave or that the stream outside the entrance floods the cave. The cave is used as a winter hibernation site by Lesser Horseshoe Bats. The area surrounding the cave is mixed woodland which provides ideal foraging habitat and shelter for the bats. A summer roost and important commuting hedgerows down to the Ahaclare are also included in the site.
000432	Barrigone SAC	The importance of this site lies primarily in the diverse range of habitats and species present within such a small area. This includes the protected plant Viola hirta and the Annex II species Euphydryas aurinia for which the site holds one of the biggest colonies in the county. 60% of the site is dominated by the priority Annex I habitats. In an area where agricultural activity is high and in this case intensive quarrying is carried out these dry grassland habitats are very important. Limestone outcrops throughout the site. Calcareous grassland is well represented and is notably species rich particularly for orchids of which 8 species have been recorded including the scarce Neotinea maculata. Associated with the limestone pavement and calcareous grassland are areas of Juniperis communis scrub.	Topographically the site slopes gently upwards from north to south from 15m on the north boundary to almost c. 40m at the south. From here there is a distant view of Aughinish Island and the Shannon Estuary to the North. Barrigone is an area of dry grassland with limestone outcrops together with associated scrub. The substrate bedrock and microclimate contribute to produce a specific and substantial range of plants.
000939	Silvermine Mountains SAC	Though small the site is important for the presence of the priority habitat Nardus grassland and also for the nationally important population of the Red Data Book species Pseudorchis albida within this habitat. A small but intact example of wet heath is also present. A typical upland fauna occurs with Lagopus lagopus and Lepus timidus hibernicus.	This small site is situated on the northern slopes of the Silvermine Mountains. The site is underlain by sandstone. The dominant habitat is heath which occurs with upland grasslands and scrub. The site is longest on its north/south axis. It rises 150m from north to south and has a maximum altitude of 409m. Grazing is the main landune. A road cuts through the N/S axis of the site.

Site Code	Site Name	Quality of Site	Other Site Characteristics
001197	Keeper Hill SAC	The site supports a significant representation of intact blanket bog which has a varied topography and occurs in association with wet heath. Falco peregrinus and Lagopus lagopus breed within the site. Several rare bryophytes occur within the site.	A small to medium upland site in the midlands underlain by Old Red Sandstone. The dominant habitats are heath blanket bog and upland wet grassland. The site is almost completely surrounded by coniferous woodland. With access easy along forest roads at the trackway to the summit the site is a popular amenity area and vantage point.
002036	Ballyhoura Mountains SAC	This site has been selected for the presence of the Annex 1 habitats wet heath dry heath and active blanket bog. The heath habitats are the dominant habitats and are generally of high quality. Blanket bog covers a smaller area though is still well represented. Although the flanks of the mountain range has been extensively afforested with conifers the quality of the remaining upland area is good with relatively low levels of disturbance from potentially damaging operations such as grazing and burning. The site provides crucial foraging habitat and potential nesting habitat for the important population of Circus cyaneus that nests in the Ballyhoura mountain range. The site also supports breeding Falco peregrinus.	Ballyhoura Mountains is located on the border between counties Cork and Limerick. The site comprises the unafforested summit ridges within the mountain range extending from Carron Mountain east towards Long and Seefin Mountains and including outliers at Coolfree Mountain. These areas are dominated by heath and blanket bog habitats. The flanks of this mountain range have been intensively afforested in the past 40 years. Old Red Sandstone dominates the bedrock geology of the site.
002124	Bolingbrook Hill SAC	The main importance of this site lies in the presence of good examples of typically upland habitats namely species rich Nardus grassland wet heath and dry heath. Some blanket bog also occurs but this is small in extent and mostly degraded. A good diversity of native fauna occurs.	This is a small to medium sized upland site on the lower slopes of Mother Mountain. It is in two separate parts. The eastern section is dominated by dry heath on higher ground with upland grassland on mineral soils on the lower slopes. Some of this grassland is improved further areas are maintained by grazing and to the north under-grazing leads to scrub invasion. A small area of bog is present in a depression. The western portion of the site consists mainly of wet heath and acidic grassland.
002165	Lower River Shannon SAC	The site contains many Annexed habitats including the most extensive area of estuarine habitat in Ireland. A good range of Annexed species are also present including the only known resident population of Tursiops truncatus in Ireland all three Irish species of lamprey and a good population of Salmo salar. A number of birds listed on the EU Birds Directive either winter or breed in the site.	A very large long site approximately 14 km wide and 120 km long encompassing: the drained river valley which forms the River Shannon estuary; the broader River Fergus estuary plus a number of smaller estuaries e.g. Poulnasherry Bay; the freshwater lower reaches of the Shannon River between Killaloe and Limerick plus the freshwater stretches of much of the Feale and Mulkear catchments; a marine area

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		The site is internationally important for waterfowl with more than 50000 individuals occurring in winter. Several species listed in the Irish Red Data Book are present perhaps most notably the only known Irish populations of Scirpus triqueter.	at the mouth of the Shannon estuary with high rocky cliffs to the north and south; ericaceous heath on Kerry Head and Loop Head; and several lagoons. The underlying geology ranges from Carboniferous limestone (east of Foynes) to Namurian shales and flagstones (west of Foynes) to Old Red Sandstone (at Kerry Head). The salinity of the system varies daily with the ebb and flood of the tide and with annual rainfall fluctuations seasonally.
002279	Askeaton Fen Complex SAC	The site is most important for the presence of the Annex I habitat Cladium fen and also for the presence of Alkaline fens. Small areas of species-rich dry grassland are also found. The site supports a diversity of habitats and species.	The site consists of a number of separate small fen areas north east and south of Askeaton in an area of undulating ground underlain by Carboniferous Limestone. The fen is predominantly the Cladium type though alkaline fens are found around the landward margins. Adjacent to the fens are associated habitats such as freshwater marsh wet grassland and open water. On higher ground dense scrub is found. Occasionally at the south of the site cliffs are present. Diverse dry grassland is found also at the south of the site though this is further fragmented by agricultural improvement.
002312	Slieve Bernagh Bog SAC	This extensive upland site has been selected for the presence of the Annex 1 habitats active blanket bog dry heath and wet heath. The quality of these habitats is generally very good due to low levels of recent disturbance. The occurrence of Vaccinium oxycoccus is of note. The site ranks as one of the most extensive high quality upland areas in the mid-west of Ireland and is of high importance. Areas of conifer plantation have been included within the site. The site is used as foraging habitat by a small population of Circus cyaneus which nests in the Slieve Bernagh mountain range. Lagopus lagopus occurs within the site.	This is a large upland site located in the south-east of county Clare. The site comprises three distinct blocks of land separated by extensive conifer plantations which dominate the mountain slopes. The dominant bedrock within the site is base-poor Silurian sedimentary rocks and Old Red Sandstone. These rocks support a rather shallow peat soil which give rise to the dominant heath habitats. Where peat is deeper especially on plateau areas blanket bog has developed. Small areas of conifer plantations have been retained within the site area as well as some areas of cutover blanket bog

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002316	Ratty River Cave SAC	The cave is small (5-10 m) but in excellent condition. Cave habitats include rock roof and walls and stalactites. The cave provides stable and undisturbed winter hibernating conditions for an internationally important number of lesser horseshoe bats. The nearest known summer roost of lesser horseshoe bats is also included in the site.	This site includes a natural fossil limestone cave situated in the bank of the Ratty or Owenogarney River. A section of the river and accompanying bankside vegetation is also included in the site. An old disused cottage situated approximately 500 m from the cave is included in the site as it is used as a summer roost by the bats. The surrounding habitat consists of unimproved pasture and scrub woodland. Castle Lake occurs a few hundred metres upstream of the site.
004077	River Shannon and River Fergus Estuaries SPA	This is the most important coastal wetland site in the country and regularly supports in excess of 50000 wintering waterfowl. It has internationally important populations of Calidris alpina Limosa limosa and Tringa totanus. A further 16 species have populations of national importance. The site is particularly significant for Calidris alpina (11% of national total) Pluvialis squatarola (7.5% of total) Vanellus vanellus (6.5% of total) Tringa totanus (6.1% of total) and Tadorna tadorna (6.0% of total). It has Cygnus cygnus Pluvialis apricaria and Limosa lapponica in significant numbers. The site was formerly frequented by a population of Anser albifrons flavirostris but these have now abandoned the area. The site provides both feeding and roosting areas for the wintering birds and habitat quality for most of the estuarine habitats is good.	The River Shannon and River Fergus Estuaries form the largest estuarine complex in Ireland. The site comprises all of the estuarine habitat west from Limerick City and south from Ennis extending west as far as Killadysert and Foynes on the north and south shores of the Shannon respectively (a distance of some 25 km from east to west). Also included are several areas in the outer Shannon estuary notably Clonderalaw Bay and Poulnasherry Bay. The site has vast expanses of intertidal flats. The main macro-invertebrate community is a Macoma-Scrobicularia-Nereis community which provides a rich food resource for the wintering birds. Eelgrass (Zostera spp.) is present in places. The intertidal flats are often fringed with salt marsh vegetation areas which provide important high tide roost sites for the birds. In the innermost parts of the estuaries the tidal channels or creeks are fringed with species such as Phragmites australis and Scirpus spp. Spartina anglica is frequent in parts.
004095	Kilcolman Bog SPA	Kilcolman Bog is an important site for wintering waterfowl with nationally important populations of Cygnus cygnus Anas crecca and Anas clypeata. The Anas clypeata population is of particular note as it comprises over 6% of the national total. Other species with important populations include Anas penelope Fulica atra and Vanellus vanellus. The site formerly supported a small population of Anser albifrons flavirostris but the flock has now abandoned the area.	Kilcolman Bog is situated on the southern foothills of the Ballyhoura Mountains. It occupies a glacially eroded hollow in Carboniferous limestone. The site comprises a quaking fen fed by calcareous groundwater with areas of reedswamp freshwater marsh and wet grassland. There is a small permanent lake but in winter a large flooded area is usual.

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		The site is a Nature Reserve and is managed for the benefit of birds. The bird populations have been intensively monitored since the 1970s. The site supports Rumex maritimus a Red Data Book species.	The site has been managed for conservation since the 1970s. The surrounding landuse is mostly intensive agriculture.
002258	Silvermines Mountains West SAC	Silvermines West is a substantial upland area dominated by wet heath with smaller areas of dry heath blanket bog (incl. degraded bog) acid grassland scrub and outcropping rock. The site has been selected for the presence of the Annex 1 habitat wet heath. The site is one of the largest remaining unafforested upland areas in the north Tipperary area a large proportion of the adjoining uplands having been afforested in recent decades. The quality of the site is high due to the relatively low levels of burning and grazing in the recent past. Site is used as foraging habitat by part of the important Circus cyaneus population that nests in the Silvermine-Slievefeelim uplands.	This is an upland site dominated by heath grassland and blanket bog habitats. The dominant bedrocks within the site are Silurian sandstones and shales which outcrop frequently especially at higher elevations with old red sandstone at lower elevations. Deposits of minerals such as zinc lead and copper - now largely exhausted - occur along the northern boundary of the site where the older rocks meet limestone. Extensive disused mine workings - dominated by a large tailings pond - lie along the north-eastern boundary and some areas within the site show indications of disturbance from these past mining works. Most of the adjoining mountain ridge to the east has been afforested with conifers.
004058	Lough Derg (Shannon) SPA	Lough Derg is of importance for both breeding and wintering birds. The islands support nationally important breeding colonies of Sterna hirundo Phalacrocorax carbo Podiceps cristatus and probably Aythya fuligula. It is a traditional site for nesting Larus ridibundus but there is no recent survey information. In winter the lake is particularly important for diving ducks with nationally important populations of Aythya fuligula and Bucephala clangula occurring. Cygnus olor also has a population of national importance whilst a range of other species occur in lesser numbers including Cygnus cygnus Anas crecca Fulica atra and Vanellus vanellus. A flock of Anser albifrons flavirostris has traditionally used the site where they feed on grassy islands but birds have seldom been recorded in recent years.	Lough Derg is the largest of the Shannon Lakes being some 40 km long. Its maximum breadth across the Scarriff Bay-Youghal Bay transect is 13 km but for most of its length it is less than 5 km wide. The lake is relatively shallow at the northern end being mostly 6 m in depth but in the middle region it has an axial trench and descends to over 25 m in places. The narrow southern end of the lake has the greatest average depth with a maximum of 34 m. The greater part of the lake lies on Carboniferous limestone but the narrow southern section is underlain by Silurian strata. Most of the lower part of the lake is enclosed by hills on both sides the Slieve Aughty Mountains to the west and the Arra Mountains to the east. The northern end is bordered by relatively flat agricultural country. The lake shows the high hardness levels and alkaline pH to be expected from its mainly limestone catchment basin and it has most recently been classified as a mesotrophic system.

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			The lake has many small islands especially on its western and northern sides. The shoreline is often fringed with swamp vegetation. Aquatic vegetation includes a range of charophyte species.
000051	Lough Gash Turlough SAC	This site is at the extreme end of two ranges in variation of the turlough habitat i.e. wetness and trophic status. It has a greater area of annual vegetation than any other site and this includes Rorippa islandica a rare species found in 10-20 turloughs. Wildfowl numbers are high for its size especially Aythya ferina and Cygnus olor. There is no effective drainage of the site and though over enriched its nutrient balance could be restored.	Lough Gash is a late-draining turlough in a hollow just to the west of Newmarket-on-Fergus. It is flooded into August in most years and this results in the dominance of annual plant species which form an ungrazed stand 60cm high. This is surrounded by a fringe of amphibious species. Channels have been dug at the western and southern corners but these have little drainage effect. There are some wildfowl nesting. An inflow comes through the town on the east side and has a nutrient enriching effect.
000064	Poulnagordon Cave (Quin) SAC	This is an important example of a natural limestone cave with a good diversity of features. As >50 Lesser Horseshoe Bats have been recorded at this site it is a site of international importance. It is also important as it is at the eastern limit of this species' distribution in Ireland.	This site is a natural limestone cave situated in a field south of a school in Quin Co. Clare. A large entrance leads to a wide chamber from which three passages radiate. Two of these soon become blocked but a route to the left leads into a passage which has been used by >50 Lesser Horseshoe Bats as a winter hibernation site. Cave habitats include slow moving water thick mud boulders pools of water rock walls and roof.
000439	Tory Hill SAC	This site has an excellent diversity of habitats all of good quality over a relatively small area. The calcareous grassland and fen habitats which are represented at the site are rare in the county. The calcareous grassland is particularly species-rich and has some locally scarce species including Arabis hirsuta and Ophrys apifera. An area of limestone heath-scrub on the western flank of Tory Hill is remarkable for the occurrence of a stand of Taxus baccata which is a feature now rare in Ireland. Tory Hill has geological and geomorphological importance and represents an excellent example of a landform that is rare outside of the Burren. The site has been the subject of palaeoecological investigations and has high educational potential.	Tory Hill is an isolated limestone outcrop rising to 112 m. It is an excellent example of an end-moraine. Of particular geomorphological note are ice marks that are clearly visible on the solid rock of its northern flank. Soil is a coarse calcareous drift. Most of the hill is dominated by deciduous scrub and woodland with a well developed heath-scrub complex occurring on its western flank. Some limestone pavement occurs in association with the calcareous grassland. Lough Nagirra is a small lake that is surrounded by swamp and fen vegetation and wet grassland.

Site Code	Site Name	Quality of Site	Other Site Characteristics
001013	Glenomra Wood SAC	This is an old oak woodland which was clear-felled and left to regenerate naturally resulting in a rather dense and even-aged stand. The understorey is also dense which along with recent grazing has resulted in an impoverished ground flora. The wood is unmanaged and provides a haven for species such as Martes martes while ditches within the site support an abundant population of Rana temporaria. The association with other semi-natural habitats notably wet grassland and bog is of value.	This site is dominated by deciduous woodland on a west facing slope. Although probably of ancient origin it was clear-felled around 50 years ago and left to regenerate naturally. The diversity of the site is enhanced by an area of species-rich grassland a small stream and a small area of raised bog.
001847	Philipston Marsh SAC	The site supports an important though small example of transition mire vegetation in a region where such habitat is rare. It has many of the expected flora species for the habitat. A range of scarce plant species are found at the site notably Epipactis palustris Galium uliginosum and Eriophorum latifolium. The site appears to be in a fairly natural state.	The site is within the upper reaches of the Mulkear catchment. The southern part is flushed with calcareous groundwater issuing from the base of a gentle slope. A small stream or drainage channel flows along part of northern boundary. The site comprises a mosaic of wetland habitat types mainly reed swamp alkaline fen and transition mire. A small area of open water occurs. Willow (Salix spp.) scrub is present in places and some wet grassland is included. Some of the areas immediately adjacent to site are planted with conifers.
002125	Anglesey Road SAC	The primary scientific interest of this site is the presence of a fairly good example of Nardus grassland. Species rich Nardus grassland is a rare habitat in Ireland.	A small site on the lower slopes of Mother Mountain. It consists mainly of grassland on mineral soil. Some of the grassland has been improved. The other main component of the site is scrub along the river and lateral gullies. On steeper slopes a form of dry heath with Pteridium aquilinum invasion is found. A road runs through the site.

Site Code	Site Name	Quality of Site	Other Site Characteristics
002137	Lower River Suir SAC	This site contains a range of Annex I habitats including floating river vegetation eutrophic tall herbs alluvial forest old oak woods yew woods and salt meadows. The site is very important for the presence of a number of scarce and specialised Annex II animal species with particularly important populations of the fish species Salmo salar and Alosa fallax fallax. Lutra lutra is widespread on the system as is Austropotamobius pallipes. The site supports two Annex I priority and five non-priority Annex I habitats. There are four Annex I species of birds present within the site. The rare lichen Lobaria pulmonaria an ancient woodland indicator occurs at Portlaw Oak Woods within the site.	The Suir River system flows through the counties of Tipperary Kilkenny and Waterford. The site consists of all of the freshwater stretches of the Suir immediately south of Thurles the tidal stretches as far as the confluence with the Barrow/Nore immediately east of Cheekpoint in Co. Waterford and many of the tributaries including the Clodiagh the Lingaun Anner Nier Tar Aherlow and Multeen. Much of the system flows through Carboniferous limestone though towards Waterford the geology changes to Old Red Sandstone and Ordovician bedrocks. The site supports a diverse range of habitats including marsh reedbeds wet and dry grasslands broad-leaved semi-natural woodlands salt marshes tidal rivers and estuarine channels. Substantial areas of improved grassland and arable lands are included for water quality reasons.
002319	Kilkishen House SAC	An internationally important hibernaculum of Rhinolophus hipposideros is present in the basement of the house. This winter roost is in good condition and provides stable and undisturbed hibernating conditions for the bats. A summer roosting site in the roof is in poor condition and is vulnerable to further dereliction. Foraging areas have not yet been established. The site also supports a population of Myotis nattereri.	The site consists of a two-storey over-basement mansion which is currently disused and a surrounding copse of woodland. It is surrounded by parkland with mature trees. Extensive areas of woodland and a small lake are found within 500 m of the site.
002351	Moanveanlagh Bog SAC	This site is of importance for the presence of active raised bog degraded raised bog and Rhynchosporion vegetation. Although the condition of these habitats is poor due to peat-cutting and burning and with only a very small area of active bog the site is important because it is the best remaining example of a raised bog in the south-west of the country. The presence of the scarce Sphagnum species S. imbricatum and S. fuscum is also noteworthy.	Moanveanlagh Bog is a medium-sized raised bog located on the Kerry/Limerick border 4 km east of Listowel town. The site overlies Namurian shales and grits which is unusual as most Irish raised bogs overlie limestone. There is intensive peat-cutting along the margins and this has resulted in the widespread drying out of the high bog surface. Part of the cutover had been converted to pasture grassland of varying quality. The insectivorous plant species Sarracenia purpurea has been introduced to the site and now covers a large proportion of the site surface.

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004094	Blackwater Callows SPA	The site is of high importance for wintering waterfowl. It supports an internationally important population of Cygnus cygnus and nationally important populations of Anas penelope Anas crecca and Limosa limosa. The population of Limosa limosa has exceeded the threshold for international importance at times. Formerly it had a regular population of Cygnus columbarius bewickii but this no longer occurs reflecting a contraction of range at a national level. Egretta garzetta breeds locally and this species is now a regular visitor to the site. The Blackwater system is an important salmonid fishery and is of high conservation value for Salmo salar. It also supports important populations of Lampetra planeri L. fluviatilis Petromyzon marinus and Alosa fallax fallax. Lutra lutra is widespread throughout the site.	The site comprises a 23 km stretch of the River Blackwater running in a west to east direction between Fermoy and Lismore. It includes the river channel and strips of seasonally flooded grassland within the flood plain. Sandstone ridges parallel to the river confine the area of flooding to a relatively narrow corridor. The lower stretch from Ballyduff to Lismore is more subject to flooding than the upper part. The river channel has a well-developed aquatic community along with emergent swamp vegetation in places. Most of the land above the banks is improved for agriculture with only occasional areas of fringing marshland wet grassland and wet woodland (mostly Salix spp.) still present. Some arable areas occur.
004165	Slievefelim to Silvermines Mountains SPA	Supports c. 3% of the all-Ireland population of Circus cyaneus and among the top 5 most important sites in the country for the species. Habitat excellent for both nesting and foraging purposes. Also has nesting Falco peregrinus Falco columbarius and Lapopus lagopus the latter a Red Data Book species. Falco columbarius probably nests but a survey is required.	This is an extensive upland site that occurs in Counties Tipperary and Limerick. Much of the site is over 200 metres in altitude rising to 694 m at Keeper Hill. The site is underlain mainly by Silurian-aged Sandstones. Several important rivers rise within the site including the Mulkear Bilboa and Clare rivers. Approximately half of the site is afforested including both first and second rotation plantations and clear fell areas. Roughly one-quarter of the site is unplanted blanket bog and heath with both wet and dry heath present. The remainder of the site is largely rough grassland that is used for hill farming. Some stands of deciduous woodland also occur especially in the river valley.

Site Code	Site Name	Quality of Site	Other Site Characteristics
000174	Curraghchase Woods SAC	Curraghchase House is one of just two known Lesser Horseshoe sites (Rhinolophus Hipposideros) in County Limerick. As the number of bats is >50 all year round it is a site of international importance. The woodlands include areas of both alluvial forests and Taxus baccata woods. While both have been disturbed by planting with commercial forest they still retain key diagnostic characters and species and both areas display natural regeneration. The occurrence of Taxus woods is of particular note due to the very limited distribution in Ireland for this habitat.	The site consists largely of mixed woodland (Deciduous- native and non-native; commercial conifers). Lakes and fens run the length of the woods. The site is on a limestone ridge overlain by glacial drift. Lesser Horseshoe Bats inhabit the cellars of the former mansion Curraghchase House. The bats are present throughout the year. The surrounding woodland and wetland habitats are ideal for foraging bats.
000646	Galtee Mountains SAC	One of the highest inland mountain ranges in Ireland with extensive areas of dry heath alpine heath montane blanket bog and upland grassland including species-rich nardus grassland. The cliffs above the corries support arctic-alpine vegetation including the Red Data species Cardaminopsis petraea in one of its two Irish localities and several other notable Irish varieties. Site contains two known territories of Falco peregrinus.	An inland mountain range reaching 920m derived from folding of old red sandstone and silurian rocks with a series of small corrie lakes on the northern side and encompassing the headstreams of numerous tributaries of the river Suir. Site includes high level montane blanket bog alpine heath dry heath and montane cliffs.
000930	Clare Glen SAC	An important site for its remnants of old oak wood and an interesting and rich bryoflora including the only station in Ireland for Fissidens exiguus. The ravine includes a population of Trichomanes speciosum.	A steep-sided ravine cut into Old Red Sandstone surrounded by mixed woodland and pockets of old oak wood. The Clare river flows east to west through the ravine and incorporates a series of waterfalls fast-flowing ripples and pool sections. The site is of interest geologically for the stratigraphy of Old Red Sandstone and fossil ripple works.
001430	Glen Bog SAC	The site has an important and fairly extensive example of a type of alluvial woodland (Alnus glutinosa - Carex paniculata community) that is considered genuinely rare in Ireland. The woodland has developed naturally in a former lake basin and is dominated by native species. Its quality is good and it appears to be functioning in a natural state. The quarry on site supports a pair of Falco peregrinus. Rana temporaria is abundant in the wet woodland.	The site is situated approximately 2 km to the south-east of Lough Gur in Co. Limerick. Glen Bog is now dominated by wet woodland. The woodland does not flood but is permanently waterlogged. In addition to Glen Bog the site includes the summit and southern slopes of Knockderc which rises to 143 m. Knockderc is composed of an igneous intrusive porphyritic rock while the rest of the site is underlain by Lower Carboniferous limestone. Habitats on the hill include scrub bracken and acidic grassland. There is some exposed rock as well as a disused quarry.

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001432	Glenstal Wood SAC	The main importance of this site is in the population of Trichomanes speciosum that it holds. The species was first recorded here in 1852; in 1934 it was said to be found here "in more than one spot"; while in 1949 a "fine clump" of the plant was seen. The glen is quite species-rich and supports a rich flora of flowering plants ferns bryophytes and lichens. Prunus padus a threatened species in Ireland was reported from the site in 1881.	The site is situated on the western foothills of the Slievefelim Mountains. It comprises stands of oak woodland around Glenstal Castle and Abbey and extending north-eastwards along a narrow glen cut into Old Red Sandstone. The glen is approximately 1.5km long and narrows at its north-eastern end to a rocky ravine. A small stream runs the length of the glen along its floor.
002037	Carrigeenamronety Hill SAC	The importance of this site lies in the presence of Trichomanes speciosum. Thirteen plants were recorded from the site in 1976. These were growing in clefts in rock.	Carrigeenamronety Hill is an eastern lower outlier of the Ballyhoura Mountains which straddles the border of Counties Cork and Limerick. It is underlain by old red sandstone and silurian rocks and its summit is crowned by an imposing escarpment of silurian conglomerate rock. Heath forms the dominant vegetation of the site especially in the higher sections. Areas of unimproved Molinia grassland and improved grassland are found at lower altitudes. Commercial forestry occurs commonly on the hill outside the site and on other high ground to the west.
002162	River Barrow and River Nore SAC	The site supports many Annexed habitats including the priority habitats of alluvial woodland and petrifying springs. Quality of habitat is generally good. The site also supports a number of Annex II animal species - Salmo salar Margaritifera margaritifera M.m. durrovensis Alosa fallax fallax Austropotamobius pallipes Petromyzon marinus Lutra lutra Lampetra fluviatilis and L. planeri. Annex I Bird species include Anser albifrons flavirostris Falco peregrinus Cygnus cygnus Cygnus columbianus bewickii Limosa lapponica Pluvialis apricaria and Alcedo atthis. A range of rare plants and invertebrates are found in the woods along these rivers and rare plants are also associated with the saltmarsh.	This site consists of most of the freshwater stretches of the Barrow/Nore River catchments. The Barrow is tidal as far upriver as Graiguenamanagh while the Nore is tidal as far upriver as Inishtioge. The site also includes the extreme lower reaches of the River Suir and all of the estuarine component of Waterford Harbour extending to Creadan Head. The larger of the many tributaries include the Lerr Fushoge Mountain Aughavaud Owenass Boherbaun and Stradbally Rivers of the Barrow and the Delour Dinin Erkina Owveg Munster Arrigle and King's Rivers on the Nore. Both rivers rise in the Old Red Sandstone of the Slieve Bloom Mountains. They traverse limestone bedrock for a good proportion of their routes though the middle reaches of the Barrow and many of the eastern tributaries run through Leinster Granite.

Site Code	Site Name	Quality of Site	Other Site Characteristics
			A wide range of habitats associated with the rivers are included within the site including substantial areas of woodland (deciduous mixed) dry heath wet grassland swamp and marsh vegetation salt marshes a small dune system biogenic reefs and intertidal sand and mud flats. Areas of improved grassland arable land and coniferous plantations are included in the site for water quality reasons.
002170	Blackwater River (Cork/Waterford) SAC	The site supports important examples of a range of Annex I habitats notably estuaries intertidal mudflats and sandflats perennial vegetation of stony banks salt meadows floating river vegetation alluvial forests and oak woodlands. Most of these are of good quality and extensive in area. The Blackwater system is an important salmonid fishery and is of high conservation value for Salmo salar. Also supports important populations of Lampetra planeri L. fluviatilis Petromyzon marinus and Alosa fallax fallax. Substantial populations of Margaritifera margaritifera occur while Austropotamobius pallipes is found in the Awbeg River. Lutra lutra is widespread throughout the site and has been subject to detailed surveys. Trichomanes speciosum occurs at one location. Annex I bird species present in the site include breeding Egretta garzetta Alcedo atthis and Falco peregrinus and wintering cygnus cygnus and Pluvialis apricaria. A good diversity of other winter waterfowl species also occurs.	The River Blackwater is one of the largest rivers in Ireland draining a major part of Co. Cork and parts of Cos. Kerry Limerick Tipperary and Waterford. The site consists of most of the freshwater stretches of the system as well as the estuarine component at Youghal. Tidal influence extends almost to Cappoquin. The Blackwater rises in the east Kerry uplands where Namurian grits and shales build the low heather-covered plateaux. In the lowlands in the Mallow district it passes over limestone and later cuts through ridges of Old Red Sandstone to the south of Cappoquin. Main tributaries include the Rivers Lickey Bride Allow and Awbeg. A wide range of habitats associated with the rivers are included within the site including substantial areas of woodland (deciduous mixed) scrub wet grassland swamp and marsh vegetation bog salt marshes and intertidal sand and mud flats. Areas of improved grassland arable land and coniferous plantations are included in the site for water quality reasons.
002257	Moanour Mountain SAC	This site supports good examples of heath vegetation typical for the region.	The site occurs on the north-western slope of Moanour Mountain an outlying ridge of the Galtee Mountains. Much of the remainder of this mountainous ridge has been afforested. A fine altitudinal transition is seen from upland acid grassland on mineral soil at the lower elevations to wet and dry heaths on peats higher up. The wet heath grades into incipient blanket bog at the highest level. The only landuse in the site is grazing by sheep.

Site Code	Site Name	Quality of Site	Other Site Characteristics
002318	Knockanira House SAC	This site supports an internationally important summer roost of Rhinolophus hipposideros. Knockanira House is unused undisturbed and in relatively good condition. It is located in an area highly populated with lesser horseshoe bats. It is one of two known maternity roosts within a 5km distance where a combined total of up to 300 bats are counted each summer (approximately 200 in Newhall House and 100 in Knockanira House). However a much larger number of lesser horseshoe bats are counted every winter from three SAC designated hibernacula within a similar 5km radius (up to 576 in Newhall Edenvale and 200 in Pouladatig - 776 in total). Foraging areas for the bats at Knockanira have not yet been established.	The site consists of an old two storey disused farm house situated approximately 10 km to the south-west of Ennis in Co. Clare. The bats roost in the attic. The site is surrounded by agricultural land with tree lines and hedgerows and some small copses of broadleaved woodland.
004028	Blackwater Estuary SPA	The Blackwater Estuary is of high ornithological importance for wintering waterfowl providing good quality feeding areas for a diversity of waterfowl species. At high tide the birds roost along the shoreline and salt marsh fringe. The site supports an internationally important population of Limosa limosa (over 5% of the national total). It supports a further eight species in numbers of national importance: Tadorna tadorna Anas penelope Pluvialis apricaria Vanellus vanellus Calidris alpina Numenius arquata Tringa totanus and Tringa nebularia. A population of Limosa lapponica exceeds the threshold for national importance in some winters. Egretta garzetta breeds locally and the Blackwater Estuary is a main feeding area. The site is important for gulls and attracts substantial numbers of Larus fuscus in autumn and winter. The Blackwater Estuary has been well-studied with waterfowl counts extending back to 1974.	The Blackwater Estuary SPA is a relatively small sheltered south-facing estuary which extends from below Youghal Bridge to the Ferry Point peninsula close to where the river enters the sea. It comprises a section of the main channel of the River Blackwater. At low tide intertidal flats are exposed. On the eastern side the intertidal channel extending as far as Kinsalebeg and Moord Cross Roads is included while on the west side the site includes much of the estuary of the Tourig River. The intertidal sediments are mostly muds or sandy muds reflecting the sheltered conditions of the estuary. The sediments have a macrofauna typical of muddy sands with polychaete worms and bivalves well-represented. Salt marshes occur along the sheltered inlets. A low-lying field which provides an important roost is included.

Site Code	Site Name	Quality of Site	Other Site Characteristics
004161	Stack's to Mullaghareirk Mountains West Limerick Hills and Mount Eagle SPA	Supports c. 21% of the all-Ireland population of Circus cyaneus which is the largest concentration in the country for the species. Habitat excellent for both nesting and foraging purposes. Asio flammeus a rare breeding bird in Ireland has nested in the past and has been recorded intermittently in recent years. Falco columbarius has a presence though the size of the population is unknown. Lagopus lagopus a Red Data Book species occurs.	This a very large upland site centred on the borders between the counties of Cork Kerry and Limerick. The peaks are not notably high or indeed pronounced with a maximum of 451 m at Knockhefa. Many rivers rise within the site notably the Blackwater Feale Clydagh Oolagh and Smerlagh. The site consists of a variety of upland habitats though almost half (45%) is afforested. The coniferous forest includes first and second rotation plantations with both pre-thicket stands present as well as clearfell areas. A substantial part (28%) of the site is unplanted blanket bog and heath with both wet and dry heath present. The remainder of the site is largely rough grassland that is used for hill farming. Some areas of scrub and deciduous woodland occur especially within the river valleys.

Appendix 1 - Table 2 Background data for European sites considered in the assessment; including the Qualifying features (Qualifying Interests or Special Conservation Interests) and the known threats and pressures as recorded by the National Parks and Wildlife Services

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000030	Danes Hole, Poulnalecka SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B06, D05, B01.01, A10.01, M02.03	Grazing in forests or woodland, Improved access to site, Forest planting on open ground (native trees), Removal of hedges and copses or scrub, Decline or extinction of species
000051	Lough Gash Turlough SAC	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	E01, H01.08, D01.02, A10.01, A04, F03.01, A08	Urbanised areas, human habitation, Diffuse pollution to surface waters due to household sewage and waste waters, Roads, motorways, Removal of hedges and copses or scrub, Grazing, Hunting, Fertilisation
000064	Poulnagordon Cave (Quin) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	E01, G01.04.03, G05.04, A04, A10.01	Urbanised areas, human habitation, Recreational cave visits , Vandalism, Grazing, Removal of hedges and copses or scrub
000174	Curraghchase Woods SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Taxus baccata woods of the British Isles [91J0]	G05.04, B02, J02.02.01, G01, B02.01.01	Vandalism, Forest and Plantation management & use, Dredging or removal of limnic sediments, Outdoor sports and leisure activities, recreational activities, Forest replanting (native trees)
000432	Barrigone SAC	Juniperus communis formations on heaths or calcareous grasslands [5130], Marsh Fritillary (Euphydryas aurinia) [1065], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240]	A04.03, K02.01, X	Abandonment of pastoral systems lack of grazing, Species composition change (succession), No threats or pressures
000439	Tory Hill SAC	Alkaline fens [7230], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	J02.01.03, J02, X, A04.02.04	Infilling of ditches, dykes, ponds, pools, marshes or pits, Human induced changes in hydraulic conditions, No threats or pressures, Non intensive goat grazing

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000646	Galtee Mountains SAC	Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani) [8110], Siliceous rocky slopes with chasmophytic vegetation [8220], Alpine and Boreal heaths [4060], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Blanket bogs * if active bog [7130], Calcareous rocky slopes with chasmophytic vegetation [8210]	A10.01, G01.03.02, J02.11, X, G01.02, J01, A04.01.02, G01.04.01	Removal of hedges and copses or scrub, Off-road motorized driving, Siltation rate changes, dumping, depositing of dredged deposits, No threats or pressures, Walking, horseriding and non-motorised vehicles, Fire and fire suppression, Intensive sheep grazing, Mountaineering & rock climbing
000930	Clare Glen SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Killarney fern (Trichomanes speciosum) [1421]	G01, I01, B02.04, B02.02, J02.11, X	Outdoor sports and leisure activities, recreational activities, Invasive non-native species, Removal of dead and dying trees, Forestry clearance, Siltation rate changes, dumping, depositing of dredged deposits, No threats or pressures
000939	Silvermine Mountains SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	A04.02.01, A04.01, M02.01	Non intensive cattle grazing, Intensive grazing, Habitat shifting and alteration
001013	Glenomra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	E01.03, D05, A10.01, D02.01, B02, B06, G05.06	Dispersed habitation, Improved access to site, Removal of hedges and copses or scrub, Electricity and phone lines, Forest and Plantation management & use, Grazing in forests or woodland, Tree surgery, felling for public safety, removal of roadside trees
001197	Keeper Hill SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130]	D01.01, X, K01.01, D02.03, G01.03.01, G01.03.02	Paths, tracks, cycling tracks, No threats or pressures, Erosion, Communication masts and antennas, Regular motorized driving, Off-road motorized driving
001430	Glen Bog SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0]	J02, F05.05, X	Human induced changes in hydraulic conditions, Shooting, No threats or pressures

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
001432	Glenstal Wood SAC	Killarney fern (Trichomanes speciosum) [1421]	K02.01, B02.03, I01	Species composition change (succession), Removal of forest undergrowth, Invasive non-native species
001847	Philipston Marsh SAC	Transition mires and quaking bogs [7140]	B, A04, X, A08	Sylviculture, forestry, Grazing, No threats or pressures, Fertilisation
002036	Ballyhoura Mountains SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130], European dry heaths [4030]	C01.03, B01.02, G01.03.02, G01, D05, X, C03.03, J01	Peat extraction, Artificial planting on open ground (non-native trees), Off-road motorized driving, Outdoor sports and leisure activities, recreational activities, Improved access to site, No threats or pressures, Wind energy production, Fire and fire suppression
002037	Carrigeenamronety Hill SAC	European dry heaths [4030], Killarney fern (Trichomanes speciosum) [1421]	B01.02, J01, G01.02, X	Artificial planting on open ground (non-native trees), Fire and fire suppression, Walking, horseriding and non-motorised vehicles, No threats or pressures
002124	Bolingbrook Hill SAC	Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230], European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010]	A10.01, D01.01, J01, X, B02, G05.07	Removal of hedges and copses or scrub, Paths, tracks, cycling tracks, Fire and fire suppression, No threats or pressures, Forest and Plantation management & use, Missing or wrongly directed conservation measures
002125	Anglesey Road SAC	Species-rich Nardus grasslands, on siliceous substrates in mountain areas - and submountain areas in Continental Europe [6230]	X, A08, B, A02	No threats or pressures, Fertilisation, Sylviculture, forestry, Modification of cultivation practices
002137	Lower River Suir SAC	Atlantic salmon (Salmo salar) [1106], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Sea lamprey (Petromyzon marinus) [1095], Otter (Lutra lutra) [1355], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], River lamprey (Lampetra fluviatilis) [1099], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	A01, J02.01.02, E03, A08, J02.01, I01, J02.12.02, X, B, D03.01, E01, H01	Cultivation, Reclamation of land from sea, estuary or marsh, Discharges, Fertilisation, Landfill, land reclamation and drying out, general, Invasive non-native species, Dykes and flooding defense in inland water systems, No threats or pressures, Sylviculture, forestry, Port areas, Urbanised areas, human habitation, Pollution to surface waters (limnic & terrestrial, marine & brackish)

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		[6430], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Brook lamprey (Lampetra planeri) [1096], Mediterranean salt meadows (Juncetalia maritimi) [1410], Twaite shad (Alosa fallax) [1103], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Taxus baccata woods of the British Isles [91J0], White-clawed crayfish (Austropotamobius pallipes) [1092]		
002162	River Barrow and River Nore SAC	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Otter (Lutra lutra) [1355], Salicornia and other annuals colonising mud and sand [1310], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Reefs [1170], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], River lamprey (Lampetra fluviatilis) [1099], Nore Pearl Mussel (Margaritifera durrovensis) [1990], Petrifying springs with tufa formation (Cratoneurion) [7220], Twaite shad (Alosa fallax) [1103], Atlantic salmon (Salmo salar) [1106], Mudflats and sandflats not covered by seawater at low tide [1140], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Estuaries [1130], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], Killarney fern (Trichomanes speciosum) [1421], Brook lamprey (Lampetra planeri) [1096], Mediterranean salt meadows (Juncetalia maritimi) [1410], European dry heaths [4030], Sea lamprey (Petromyzon marinus) [1095], White-clawed crayfish (Austropotamobius pallipes) [1092]	F02.03, A04.01.01, J02, B05, C01.03, D03.01, J03.02.01, F01.01, B07, I01, F02.01.02, J02.05.02, A02.01, A10.01, B02, C01.01.01, E02, J02.12.02, J02.02.01, J02.06, K01.01, M01, F02, B02.01.01, H01	Leisure fishing, Intensive cattle grazing, Human induced changes in hydraulic conditions, Use of fertilizers (forestry), Peat extraction, Port areas, Reduction in migration or migration barriers, Intensive fish farming, intensification , Forestry activities not referred to above, Invasive non-native species, Netting, Modifying structures of inland water courses, Agricultural intensification, Removal of hedges and copses or scrub, Forest and Plantation management & use, Sand and gravel quarries, Industrial or commercial areas, Dykes and flooding defense in inland water systems, Dredging or removal of limnic sediments, Water abstractions from surface waters, Erosion, Changes in abiotic conditions, Fishing and harvesting aquatic resources, Forest replanting (native trees), Pollution to surface waters (limnic & terrestrial, marine & brackish)

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
002165	Lower River Shannon SAC	Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Sea lamprey (Petromyzon marinus) [1095], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Coastal lagoons [1150], Mudflats and sandflats not covered by seawater at low tide [1140], Salicornia and other annuals colonising mud and sand [1310], Reefs [1170], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], River lamprey (Lampetra fluviatilis) [1099], Bottlenose dolphin (Tursiops truncatus) [1349], Sandbanks which are slightly covered by sea water all the time [1110], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Perennial vegetation of stony banks [1220], Otter (Lutra lutra) [1355], Large shallow inlets and bays [1160], Atlantic salmon (Salmo salar) [1106], Mediterranean salt meadows (Juncetalia maritimi) [1410], Brook lamprey (Lampetra planeri) [1096], Estuaries [1130], Freshwater pearl mussel (Margaritifera margaritifera) [1029]	C01.01.02, E03, G01.01, F03.01, D01.01, J02.01.02, A04, J02.01.01, B, H04, F02.03, J02.12.01, A08, C01.03.01, E01, F01, I01, J02.10, K02.03	Removal of beach materials, Discharges, Nautical sports, Hunting, Paths, tracks, cycling tracks, Reclamation of land from sea, estuary or marsh, Grazing, Polderisation, Sylviculture, forestry, Air pollution, air-borne pollutants, Leisure fishing, Sea defense or coast protection works, tidal barrages, Fertilisation, Hand cutting of peat, Urbanised areas, human habitation, Marine and Freshwater Aquaculture, Invasive non-native species, Management of aquatic and bank vegetation for drainage purposes, Eutrophication (natural)
002170	Blackwater River (Cork/Waterford) SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Mediterranean salt meadows (Juncetalia maritimi) [1410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Twaite shad (Alosa fallax) [1103], Sea lamprey (Petromyzon marinus) [1095], Killarney fern (Trichomanes speciosum) [1421], Salicornia and other annuals colonising mud and sand [1310], Otter (Lutra lutra) [1355], Perennial vegetation of stony banks [1220], Mudflats and sandflats not covered by seawater at low tide [1140], Water courses of plain to montane levels with the Ranunculion fluitantis and	C01.01, A08, A03, I01, G01.01, A04, B, G02, E02, E03.01, D01.04, D01.02, J02.01, F02.03, E01, K01.01	Sand and gravel extraction , Fertilisation, Mowing or cutting of grassland, Invasive non-native species, Nautical sports, Grazing, Sylviculture, forestry, Sport and leisure structures, Industrial or commercial areas, Disposal of household or recreational facility waste, Railway lines, TGV, Roads, motorways, Landfill, land reclamation and drying out, general, Leisure fishing, Urbanised areas, human habitation, Erosion

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		Callitricho-Batrachion vegetation [3260], White-clawed crayfish (Austropotamobius pallipes) [1092], Estuaries [1130], Brook lamprey (Lampetra planeri) [1096], Atlantic salmon (Salmo salar) [1106], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], River lamprey (Lampetra fluviatilis) [1099]		
002257	Moanour Mountain SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030]	G01.02, A04, B	Walking, horseriding and non-motorised vehicles, Grazing, Sylviculture, forestry
002258	Silvermines Mountains West SAC	European dry heaths [4030], Calaminarian grasslands of the Violetalia calaminariae [6130], Northern Atlantic wet heaths with Erica tetralix [4010]	D01.01, X, J01, A04.02.03, G01.03, A04.02.04, G01.02, C01.04	Paths, tracks, cycling tracks, No threats or pressures, Fire and fire suppression, Non intensive horse grazing, Motorised vehicles, Non intensive goat grazing, Walking, horseriding and non-motorised vehicles, Mines
002279	Askeaton Fen Complex SAC	Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	X, J02.01.02, J01, A08, H02, A10.01, E01.03	No threats or pressures, Reclamation of land from sea, estuary or marsh, Fire and fire suppression, Fertilisation, Pollution to groundwater (point sources and diffuse sources), Removal of hedges and copses or scrub, Dispersed habitation
002312	Slieve Bernagh Bog SAC	Northern Atlantic wet heaths with Erica tetralix [4010], European dry heaths [4030], Blanket bogs * if active bog [7130]	J01, C01.03.02, G01.02, A04.03, C01.01, G01.03.02, J02.01, A04, B02, D01.01, G05.01	Fire and fire suppression, Mechanical removal of peat, Walking, horseriding and non-motorised vehicles, Abandonment of pastoral systems lack of grazing, Sand and gravel extraction , Off-road motorized driving, Landfill, land reclamation and drying out, general, Grazing, Forest and Plantation management & use, Paths, tracks, cycling tracks, Trampling, overuse
002316	Ratty River Cave SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	E06.01, A04, A10.01	Demolishment of buildings & human structures , Grazing, Removal of hedges and copses or scrub

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
002318	Knockanira House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04	Grazing
002319	Kilkishen House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A10.01, A04, E06.01	Removal of hedges and copses or scrub, Grazing, Demolishment of buildings & human structures
002351	Moanveanlagh Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	E03.01, X, A01, I01, C01.03, J02.01, D01.01, J01, A04	Disposal of household or recreational facility waste, No threats or pressures, Cultivation, Invasive non-native species, Peat extraction, Landfill, land reclamation and drying out, general, Paths, tracks, cycling tracks, Fire and fire suppression, Grazing
004028	Blackwater Estuary SPA	Golden Plover (Pluvialis apricaria) [A140], Black-tailed Godwit (Limosa limosa) [A156], Curlew (Numenius arquata) [A160], Lapwing (Vanellus vanellus) [A142], Wetland and Waterbirds [A999], Dunlin (Calidris alpina) [A149], Bar-tailed Godwit (Limosa lapponica) [A157], Redshank (Tringa totanus) [A162], Wigeon (Anas penelope) [A050]	F02.03, A04, D01.02, F03.01, G01.01, A08, E01	Leisure fishing, Grazing, Roads, motorways, Hunting, Nautical sports, Fertilisation, Urbanised areas, human habitation
004058	Lough Derg (Shannon) SPA	Tufted Duck (Aythya fuligula) [A061], Cormorant (Phalacrocorax carbo) [A017], Goldeneye (Bucephala clangula) [A067], Wetland and Waterbirds [A999], Common tern (Sterna hirundo) [A193]	F02.03, A08, G01.01, F03.01	Leisure fishing, Fertilisation, Nautical sports, Hunting
004077	River Shannon and River Fergus Estuaries SPA	Scaup (Aythya marila) [A062], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Lapwing (Vanellus vanellus) [A142], Greenshank (Tringa nebularia) [A164], Redshank (Tringa totanus) [A162], Black-headed Gull (Chroicocephalus ridibundus) [A179], Black-tailed Godwit (Limosa limosa) [A156], Knot (Calidris canutus) [A143], Shelduck (Tadorna tadorna) [A048], Shoveler (Anas clypeata) [A056], Curlew (Numenius arquata) [A160], Pintail (Anas acuta) [A054], Grey Plover (Pluvialis squatarola) [A141], Teal (Anas crecca) [A052], Ringed Plover (Charadrius hiaticula) [A137], Wigeon	D03.02, E03, F01, G01.01, A08, E01, E02	Shipping lanes, Discharges, Marine and Freshwater Aquaculture, Nautical sports, Fertilisation, Urbanised areas, human habitation, Industrial or commercial areas

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		(Anas penelope) [A050], Whooper Swan (Cygnus cygnus) [A038], Dunlin (Calidris alpina) [A149], Wetland and Waterbirds [A999], Bar-tailed Godwit (Limosa lapponica) [A157], Cormorant (Phalacrocorax carbo) [A017], Golden Plover (Pluvialis apricaria) [A140]		
004094	Blackwater Callows SPA	Black-tailed Godwit (Limosa limosa) [A156], Whooper Swan (Cygnus cygnus) [A038], Wetland and Waterbirds [A999], Teal (Anas crecca) [A052], Wigeon (Anas penelope) [A050]	E01, A04, F02.03, A08	Urbanised areas, human habitation, Grazing, Leisure fishing, Fertilisation
004095	Kilcolman Bog SPA	Teal (Anas crecca) [A052], Shoveler (Anas clypeata) [A056], Whooper Swan (Cygnus cygnus) [A038], Wetland and Waterbirds [A999]	K01.03, G03, J02.05, A08	Drying out, Interpretative centres, Modification of hydrographic functioning, general, Fertilisation
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	Hen harrier (Circus cyaneus) [A082]	D01.01, D01.02, E01.03, B, C01.03, A09	Paths, tracks, cycling tracks, Roads, motorways, Dispersed habitation, Sylviculture, forestry, Peat extraction, Irrigation
004165	Slievefelim to Silvermines Mountains SPA	Hen harrier (Circus cyaneus) [A082]	E01.03, D01.02, B, D01.01, A04, C01.03	Dispersed habitation, Roads, motorways, Sylviculture, forestry, Paths, tracks, cycling tracks, Grazing, Peat extraction

Appendix 1 - Table 3 Known threats and pressures related to the qualifying interests from each Special Area of Conservation as per article 17 reporting from the National Parks and Wildlife Services

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Desmoulin's Whorl Snail (Vertigo moulinsiana)	[1016]	Loss of riverside and canalside habitat; exploitation of esker sites and drainage of wetlands, and sheep grazing and overexploitation of dune sites.	Changes to ground vegetation condition, groundwater dependent and is highly sensitive to hydrological changes.
Freshwater Pearl Mussel (Margaritifera margaritifera)	[1029]	In stream works, hydrological and morphological alterations, sediment and enrichment, pollution due urbanisation etc. Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Marsh Fritillary (Euphydryas aurinia)	[1065]	Declines in habitat quality lead to species decline.	Habitat management; land use change and drainage.
White-clawed Crayfish (Austropotamobius pallipes)	[1092]	Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Invasive species, disease, surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Sea Lamprey(Petromyzon marinus)	[1095]	Barriers to upstream migration (e.g. weirs), which limit access to spawning beds and juvenile habitat are main threats to this species.	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity.
Brook Lamprey (Lampetra planeri)	[1096]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.
River Lamprey (Lampetra fluviatilis)	[1099]	Channel maintenance, barriers, passage obstruction, gross pollution and specific pollutants.	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.
Twaite Shad (Alosa fallax fallax)	[1103]	Habitat quality, particularly at spawning sites is the most notable threat to this species.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
Salmon (Salmo salar)	[1106]	Marine survival rates are of concern for the populations.	Disease, parasites and barriers to movement.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Sandbanks which are slightly covered by sea water all the time	[1110]	None identified by the NPWS in the 2019 publication of the Status of EU protected habitats and species in Ireland.	None identified.
Estuaries	[1130]	Pollution, fishing /aquaculture and habitat quality.	Inappropriate development, changes in turbidity
Mudflats and sandflats not covered by seawater at low tide	[1140]	Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cord-grass; hard coastal defence structures; sea-level rise.	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
Coastal lagoons	[1150]	Eutrophication. Modification of hydrological glow and drainage.	Erosion and silting up. Accumulation of seaweed. Land use management resulting in hydrological interactions.
Large shallow inlets and bays	[1160]	Pressures on the habitat include nutrient enrichment, dredging and invasive alien species. Overall Status is assessed as Bad and deteriorating, a genuine decline since the 2013 assessment of Inadequate and improving, and is based on more detailed information.	Inappropriate development, changes in turbidity, surface water runoff, discharge etc. On site management activities.
Reefs	[1170]	Professional fishing; taking for fauna; taking for flora; water pollution; climate change; and change in species composition.	Sensitive to disturbance and pollution.
Perennial vegetation of stony banks	[1220]	Disruption of the sediment supply, owing to the interruption of the coastal processes, caused by developments such as car parks and coastal defence structures including rock armour and sea walls. The removal of gravel.	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity and gravel removal.
Vegetated sea cliffs of the Atlantic and Baltic coasts	[1230]	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change. There have been no significant losses in sea cliff habitat since the Directive came into force.	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Lesser horseshoe bat(Rhinolophus hipposideros)	[1303]	Habitat availability, range and roost availability.	Temperature fluctuations in their roosts. Resource availability. Habitat connectivity. Lighting and noise effects. Urbanisation.
Salicornia and other annuals colonising mud and sand	[1310]	Invasive Species; erosion and accretion.	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	[1330]	Overgrazing; erosion; invasive species, particularly common cordgrass (Spartina anglica); infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.
Bottlenose Dolphin (Tursiops truncatus)	[1349]	Pressures acting on the species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal from fisheries.	Large vessel movement effecting distributions. Prey availability, reduction in available habitat and water quality.
Otter (Lutra lutra)	[1355]	Decrease in water quality: Use of pesticides; fertilization; vegetation removal; professional fishing (including lobster pots and fyke nets); hunting; poisoning; sand and gravel extraction; mechanical removal of peat; urbanised areas; human habitation; continuous urbanization; drainage; management of aquatic and bank vegetation for drainage purposes; and canalization or modifying structures of inland water course.	Surface and marine water dependent. Moderately sensitive to hydrological change. Sensitivity to pollution.
Mediterranean salt meadows (Juncetalia maritimi)	[1410]	Over-grazing by cattle or sheep; infilling and reclamation.	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
Killarney Fern (Trichomanes speciosum)	[1421]	Threatened by habitat loss, deliberate collection, encroachment of invasive or vigorous species, or indirectly by water pollution, removal of woodland or alteration of watercourses.	Land use management and direct impacts.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
River Nore Freshwater Pearl Mussel (Margaritifera durrovensis)	[1990]	In stream works, hydrological and morphological alterations, sediment and enrichment, pollution due urbanisation etc. Poor substrate quality due to increased growth of algal and macrophyte vegetation as a result of severe nutrient enrichment, as well as physical siltation.	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
Turloughs	[3180]	Nutrient enrichment; afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Water courses of plain to montane levels with vegetation(Ranunculion fluitantis and Callitricho-Batrachion)	[3260]	Hydrological and morphological changes, water quality, enrichment, and surface water discharges from industrial site and/or agriculture.	Surface water dependent Highly sensitive to hydrological change and direct physical interactions.
Rivers with muddy banks with vegetation(Chenopodion rubri p.p. and Bidention p.p.)	[3270]	Aquaculture, fishing, bait digging, removal of fauna, reclamation of land, coastal protection works and invasive species, particularly cord-grass; hard coastal defence structures; sea-level rise.	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
Northern Atlantic wet heaths with Erica tetralix	[4010]	Reclamation, afforestation and burning; overstocking; invasion by non-heath species; exposure of peat to severe erosion.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
European dry heaths	[4030]	Afforestation, overburning, over-grazing, under-grazing and bracken invasion.	Moderately sensitive to hydrological change. Changes in management. Changes in nutrient status.
Alpine and Boreal heaths	[4060]	Abandonment; overgrazing; burning; outdoor recreation; quarries; communication networks; and wind farm developments.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
Juniperus communis formations on heaths or calcareous grasslands	[5130]	Overgrazing, erosion, scrub clearance, inappropriate land use management, and succession processes.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Calaminarian grasslands of the Murawy galmanowa (Violetalia calaminariae)	[6130]	Land reclamation, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia)* important orchid sites	[6210]	Land reclamation, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)	[6230]	Bracken encroachment, succession, inappropriate grazing, afforestation; drainage; and infrastructural development.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)	[6410]	Agricultural intensification; drainage; abandonment of pastoral systems.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels	[6430]	Agricultural intensification; drainage; abandonment of pastoral systems.	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
Active raised bogs	[7110]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
Degraded raised bogs still capable of natural regeneration	[7120]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
Blanket bogs (* if active bog)	[7130]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface water interactions. Drainage and land use management are the key things.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Transition mires and quaking bogs	[7140]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
Depressions on peat substrates of the Rhynchosporion	[7150]	Drainage; burning; peat extraction; overgrazing; afforestation; erosion; and climate change.	Surface and ground water interactions. Drainage and land use management are the key things.
Calcareous fens with species of mariscus sedge and bog cotton (Cladium mariscus and Caricion davallianae)	[7210]	Hydrological changes, pollution to surface waters, urbanisation, roads development, groundwater interactions, grazing and cultivation practices and the inappropriate use of pesticides.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
Petrifying springs with tufa formation (Cratoneurion)	[7220]	Ground water interactions, on site management activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Alkaline fens	[7230]	Land reclamation, peat extraction; afforestation; erosion and landslides triggered by human activity; drainage; burning and infrastructural development.	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
Siliceous scree of the montane to snow levels (Androsacetalia alpinae and Galeopsietalia ladani)	[8110]	Overgrazing, undergrazing and succession were recorded as medium-importance pressures in this reporting period, and Structure and functions were again assessed as Inadequate, the trend is considered to be stable rather than improving. This change is due to improved knowledge and the habitat is considered to have been stable since before the last assessment.	Erosion, overgrazing and recreation.
Calcareous rocky slopes with chasmophytic vegetation	[8210]	Overgrazing; extractive industries; recreational activities and improved access.	Erosion, overgrazing and recreation.
Siliceous rocky slopes with chasmophytic vegetation	[8220]	Pressures associated with the non-native invasive species New Zealand willowherb (Epilobium brunnescens).	Erosion, overgrazing and recreation.
Limestone pavements	[8240]	Overgrazing; extractive industries; recreational activities and improved access.	Erosion, overgrazing and recreation.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Caves not open to the public	[8310]	Cave systems are mainly protected for the Lesser Horseshoe bat which require stable temperatures and limited disturbances. None reported to be significant.	None identified.
Old sessile oak woods with Ilex and Blechnum in the British Isles	[91A0]	The introduction of alien species; sub-optimal grazing patterns; general forestry management; increases in urbanisation and human habitation adjacent to oak woodlands; and the construction of communication networks through the woodland.	Changes in management. Changes in nutrient or base status. Introduction of alien species.
Taxus baccata woods of the British Isles	[91J0]	Invasive Species; erosion and accretion.	Changes in management. Changes in nutrient or base status. Introduction of alien species.

Appendix 1 - Table 1 Known threats and pressures related to the qualifying interests from each Special Protection Area as per article 17 reporting from the National Parks and Wildlife Services

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A017	Great Cormorant	Phalacrocorax carbo carbo	C03, F02, F03, G01, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Marine water pollution
A038	Whooper Swan	Cygnus cygnus	A02, A11, C03, D02, G01, H07	Modification of cultivation practices, Agriculture activities not referred to above, Renewable abiotic energy use, Utility and service lines, Outdoor sports and leisure activities, recreational activities, Other forms of pollution
A046	Light-Bellied Brent Goose	Branta bernicla hrota	A02, A11, C03, D02, F01, G01, G05, H03, H07, I01, J03	Modification of cultivation practices, Agriculture activities not referred to above, Renewable abiotic energy use, Utility and service lines, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Other Human intrusions and disturbances, Marine water pollution, Other forms of pollution, Invasive non-native species, Other Ecosystem Modifications
A048	Common Shelduck	Tadorna tadorna	F01, F02, G01, H03, M01	Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Changes in abiotic conditions
A050	Eurasian Wigeon	Anas penelope	C03, F01, F03, G01, H01, H03, H07, I01, J02, J03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Invasive non-native species, Human induced changes in hydraulic conditions, Other Ecosystem Modifications
A052	Eurasian Teal	Anas crecca crecca	C03, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
				(limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Human induced changes in hydraulic conditions
A054	Northern Pintail	Anas acuta	C03, F01, F03, G01, H01, H03, H07, J02	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Human induced changes in hydraulic conditions
A056	Northern Shoveler	Anas clypeata	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution
A061	Tufted Duck	Aythya fuligula	C03, F03, G01, H01, H07, M02	Renewable abiotic energy use, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Other forms of pollution, Changes in biotic conditions
A062	Greater Scaup	Aythya marila	C03, F01, F02, F03, G01, H01, H03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution
A067	Common Goldeneye	Bucephala clangula	C03, F01, F03, G01, H01, H03, H07, M02	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Changes in biotic conditions
A082	Hen Harrier	Circus cyaneus	A02, B01, B02, C01, C03, F03, G01, I01, J01, J03	Modification of cultivation practices, Forest planting on open ground, Forest and Plantation management & use, Mining and quarrying, Renewable abiotic energy use,

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
				Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Invasive non-native species, Fire and Fire suppression, Other Ecosystem Modifications
A137	Common Ringed Plover	Charadrius hiaticula	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A140	European Golden Plover	Pluvialis apricaria	A02, A04, B01, C01, C03, F01, G01, H03, J01, K03, M02	Modification of cultivation practices, Grazing, Forest planting on open ground, Mining and quarrying, Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Fire and Fire suppression, Interspecific faunal relations, Changes in biotic conditions
A141	Grey Plover	Pluvialis squatarola	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A142	Lapwing	Vanellus vanellus	A02, C03, F01, G01, H03	Modification of cultivation practices, Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution
A143	Knot	Calidris canutus	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A149	Dunlin	Calidris alpina	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities,

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
				Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A156	Black-Tailed Godwit	Limosa limosa islandica	A02, C03, F01, F02, G01, H03, J02, J03	Modification of cultivation practices, Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications
A157	Bar-Tailed Godwit	Limosa lapponica	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A160	Curlew	Numenius arquata	C03, F01, F02, G01, H03, J02, J03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications
A162	Common Redshank	Tringa totanus	C03, F01, F02, G01, H03, J02, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Other Ecosystem Modifications, Changes in abiotic conditions
A164	Common Greenshank	Tringa nebularia	C03, F01, G01, H03, J02, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Human induced changes in hydraulic conditions, Changes in abiotic conditions
A179	Black-Headed Gull	Larus ridibundus	A04, C03, F02, H03, J03, M01	Grazing, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution, Other Ecosystem Modifications, Changes in abiotic conditions

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A193	Common Tern	Sterna hirundo	C03, D01, D03, G01, I01	Renewable abiotic energy use, Roads, paths and railroads, Shipping lanes, ports, marine constructions, Outdoor sports and leisure activities, recreational activities, Invasive non-native species

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APPENDIX 2

Screening of Amendments to the Draft Plan

Overview

The AA Screening of the Amendments to the Limerick Biodiversity Action Plan 2025-2030 has been completed. This assessment is presented in the Table 1 below.

Table 1: AA Screening of Plan Amendments

Objective	Action Code	Proposed Amendment	AA Screening Assessment
A. Adopt a Whole of Limerick City and County Council, Whole of Society Approach to Biodiversity	3	The existing text for the Action has been modified to: Biodiversity Training for all in LCCC including a) Decision Makers, ~~including~~ b) elected representatives, c) all indoor and outdoor staff	The amendment is clerical in nature and will not have any interactions, positive or negative, with the receiving environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.
	15	The existing text for the Action has been removed and replaced with the following: Host a series of capacity building events annually for the general public and interested groups including Tidy Towns to promote the importance of Biodiversity and encourage participation in citizen science.	The amendment proposes an additional action revolving around a series of capacity building events aimed at the general public and interested community groups, that will promote biodiversity awareness and knowledge, and enhance engagement through the use of citizen science. The action will not result in the occurrence of any significant adverse environmental effect on biodiversity or the receiving environment in general. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.
B. Meet Urgent Conservation and Restoration Needs	1	The existing text for the Action has been modified as follows: Identify Locally Important Biodiversity Sites (LIBS) in Limerick City and County according to Heritage Council guidelines. Ensure these are mapped and protected through inclusion of policies in the Limerick Development Plan, the review of which will commence in 2026 and subsequently in the associated local area plans.	The amendment is clerical in nature and will not have any interactions, positive or negative, with the receiving environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.

Objective	Action Code	Proposed Amendment	AA Screening Assessment
	5	The existing text for the Action has been modified as follows: Develop an LCCC Grassland Management Plan for areas managed by LCCC with the aim of improving their nature, habitat and ecological value	The amendment is largely clerical in nature, with the intention of clarifying the areas where the LCCC Grassland Management Plan will be implemented, and outlines the purpose of the Plan. The amendment will not have any interactions, positive or negative, with the receiving environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.
C. Secure Nature's Contribution to Current and Future Generations	7	The existing text for the Action has been modified as follows: Create online info hub of where people can visit and immerse themselves in existing nature areas and show case river Shannon and its contribution and importance to biodiversity.	The amendment is clerical in nature and is intended at clarifying where the proposed info hub will be hosted. The amendment will not have any interactions, positive or negative, with the receiving environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.
D. Enhance the Evidence Base for Action on Biodiversity	2	The existing text for the Action has been modified as: Share data from all LCCC surveys with NPWS, Heritage Council, ~~and National Biodiversity Data Centre~~, Botanical Society of Britain and Ireland and other relevant organisations.	The amendment serves to clarify which groups survey data from LCCC will be shared with. The amendment to the original action has added other relevant organisations to facilitate knowledge exchange. The amendment will not result in any significant adverse effect on the environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.

Objective	Action Code	Proposed Amendment	AA Screening Assessment
E. Strengthen Limerick's Contribution to National and Regional Biodiversity Initiatives	5	The existing text for the Action has been modified as: Develop online resources to raise awareness of ~~birdlife~~ biodiversity in the Shannon Estuary	The amendment has been made in broader support of biodiversity awareness, as opposed to specific focus on birdlife within the Shannon Estuary. The amendment will ultimately have a more comprehensive positive effect on biodiversity, flora and fauna by increasing community engagement and awareness on the ecology of the Shannon Estuary.
	10	The following action has been added: Promote and enhance habitat for species scarce to Limerick where appropriate	The amendment proposes an additional action which is aimed at the promotion and enhancement of habitats that host floral and faunal species of significance, within the Plan Area. The amendment will have a positive effect on the receiving environment, as it will improve the environmental (soil and water) and ecological conditions (biodiversity, flora and fauna) of these habitats. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.
	11	The following action has been added: Support and contribute to future European, National and local plans for Nature	The amendment proposes an additional action which commits to supporting and contributing to any future higher-tier Plans (European, National and Local) for the protection and promotion of nature. The amendment is positive for biodiversity, flora and fauna, and will not result in any adverse significant effects on the receiving environment. The amendment, therefore, in and of itself, will not generate a source of negative impact on the receiving environment.

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