FEHILY TIMONEY

DESIGNING AND DELIVERING
A SUSTAINABLE FUTURE

CLARE BIODIVERSITY ACTION PLAN 2025-2031

Appropriate Assessment Screening Report

Prepared for:

Clare County Council

COMHAIRLE CONTAE AN CHLÁIR
CLARE COUNTY COUNCIL

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AA Screening Report of the Clare Biodiversity Action Plan

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

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1. INTRODUCTION

1.1 Introduction

Fehily Timoney and Company (FT) was commissioned by Clare County Council to prepare an Appropriate Assessment Screening Report for their Local Authority Biodiversity Action Plan (LABAP) for the years 2025-2031. 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). These 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 Clare County Development Plan Natura Impact Statement and 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 Pillars have been defined in the LABAP, within underpinning objectives and actions:

1. **Pillar 1: Developing and Researching the County's Ecological Network** - Pillar 1 includes actions that aim to aim to carry out research and data collection through undertaking ecological baseline surveys, habitat mapping and scientific studies to protect and enhance sites of ecological importance, strengthen connectivity and our understanding of ecosystem services, inform decision making in CCC and inform the development of the County's Ecological Network Map.
    - Objective: *Support and strengthen our database to conserve, manage and enhance biodiversity and ecosystem services within the county through data collection, mapping and research*.
2. **Pillar 2: Integrating Biodiversity into Our Work Practices** - Pillar 2 includes actions which aim to integrate biodiversity into our work practices and decision-making processes through best practice. They are primarily aimed at conserving and enhancing biodiversity through the Council's operations and procedures.
    - Objective: *Promote and integrate biodiversity conservation into decision-making processes and operations through policy, best practice, and procedures*.
3. **Pillar 3: Restoring, Enhancing and Conserving our Biodiversity Assets** - Pillar 3 covers actions aimed at practical restoration, conservation and enhancement measures for biodiversity. This also extends to commissioning baseline surveys to inform approach to halt biodiversity loss.
    - Objective: *Deliver actions which aim to conserve, restore and enhance biodiversity and to reverse biodiversity loss at a county wide level by 2031.*
4. **Pillar 4: Raising Biodiversity Awareness and Education for Future Generations** - Pillar 4 includes actions aimed at promoting biodiversity awareness through various training, educational, creative, and outreach engagement initiatives encompassing a wide range of stakeholder groups across the county. These actions aim to educate and encourage stakeholders to take conservation actions for biodiversity.
    - Objective: *Raise awareness and appreciation of biodiversity within the county through education, training and outreach initiatives.*
5. **Pillar 5: Building Collaborative Partnerships for Nature** - Pillar 5 includes actions that foster strong support and collaborative partnerships with local communities and other stakeholders to promote actions that deliver for nature and identify new opportunities for biodiversity enhancement.
    - Objective: *Enhance collaboration among all people adopting a whole of society approach to protect, conserve and enhance biodiversity within the county.*

These objectives and actions are presented in Table 2-1.

Table 2-1: LABAP Strategic Objectives and Actions

Objective	Action Code	Action
Objective 1: Support and strengthen knowledge repositories to conserve, manage and enhance biodiversity and ecosystem services within the country through data collection, mapping and research.	1.1	Develop an Ecological Network Map (ENM) of Clare to inform landscape connectivity for wildlife and protect the county's Green Infrastructure assets taking cognisance of ecological corridors, stepping stones and pinch points.
	1.2	Strengthen understanding of natural capital and ecosystem services.
	1.3	Undertake a study to identify, map and enhance 'Locally Important Biodiversity Sites' (LIBS) and ecological corridors to inform Green Infrastructure Strategies with a view to protecting this ecological resource.
	1.4	Continue to undertake county wide habitat surveys and mapping, building on previous baseline inventory surveys to inform data collection and the ongoing development of the Ecological Network Map.
	1.5	Carry out a biodiversity audit of the Council's landbank with a view to implementing enhancement actions.
	1.6	Engage with third level institutions and other research bodies to support scientific research in the field of biodiversity in collaboration with CCC.
	1.7	Research sites of natural conservation value along the Clare coastline to fully understand the implications of climate change and sea level rise and the potential approaches to mitigation, adaptation and building resilience.
Objective 2: Promote and integrate biodiversity conservation into decision-making processes and operations through policy, best practice and procedures.	2.1	Promote best practice in the use of pesticides in Clare County Council's operations in adherence with *Clare County Council's Biodiversity Manual: Biodiversity Best Practice Guidelines* for herbicide use.
	2.2	Deliver biodiversity training courses to council staff and external contractors and implement the *Clare County Council's Biodiversity Manual: Biodiversity Best Practice Guidelines* into Council operations.
	2.3	Deliver hedgerow training courses to council staff and hedge cutting contractors.
	2.4	Retain natural features and promote and incorporate biodiversity enhancement in the design of new buildings, housing, public realm projects and other proposals as appropriate (e.g. swift nest boxes/swift bricks, native tree planting, rain gardens (SuDS), street scapes, pollinator friendly measures).
	2.5	Incorporate and promote Biodiversity Net Gain and nature-based solutions into practice and decision-making in CCC

Objective	Action Code	Action
	2.6	Protect all designated European sites (SACs and SPAs) in accordance with the EU Habitats Directive; and separately NHA sites ensuring all proposed development are subject to ecological assessment requirements.
	2.7	Adopt 'bat friendly' lighting for new public lighting proposals and upgrade/retrofit existing lighting infrastructure wherever possible to strengthen dark corridors for bats and nocturnal mammals.
	2.8	Protect bat roosts sites and ensure development proposals are subject to appropriate ecological assessments; and identify biodiversity enhancement opportunities.
	2.9	Align projects delivered under the Clare Biodiversity Action Plan 2025-2031 with Sustainable Development Goals (SDG) using the Accelerator Action Tool
	2.10	Engage with the Council led visitor attractions that Visitor Management Plans are completed which include the management of visitor impacts and reduction of threats such as disturbance and habitat degradation to sensitive ecological receptors.
Objective 3: Deliver actions which aim to conserve, restore and enhance biodiversity and reserve biodiversity loss at a county wide level by 2031.	3.1	Identify potential biodiversity opportunities for tree planting and woodland creation.
	3.2	Undertake a woodland inventory survey to identify and map native woodland habitats in the county.
	3.3	Undertake a tree survey for identified locations in the county
	3.4	Where possible, support local nurseries specialising in the conservation of native trees, plants, seeds and genetic food crops that are of provenance to County Clare.
	3.5	Support and promote local organisations that develop and implement biodiversity initiatives working with farmers, landowners and local communities to establish native woodlands, native tree planting, traditional orchards, pond creation, and other biodiversity enhancement measures.
	3.6	Undertake a hedgerow and treeline audit at sites of ecological importance for the Lesser Horseshoe Bat and other species working in partnership with key organisations.
	3.7	Undertake a county-wide wetland inventory survey to identify and map the wetland resource in County Clare.

Objective	Action Code	Action
	3.8	Support and work with landowners in the county to carry out restoration and biodiversity enhancement projects (e.g. peatlands, grassland conservation, marsh fritillary butterfly)
	3.9	Continue to support rare flora surveys including both terrestrial and aquatic environments working in partnership with BSBI, NPWS, IFI and other relevant agencies.
	3.10	Continue to support the work of the Shannon Dolphin Project including monitoring surveys of bottlenose dolphins, mapping habitats of the Shannon Estuary, habitat restoration, outreach communication and education programmes; and ongoing scientific research.
	3.11	Upon publication of the National Invasive Species Management Plan, explore the feasibility of developing an Invasive Species Management Strategy for the county
	3.12	Support targeted surveys and eradication programmes for the treatment and control of invasive alien species in partnership with the relevant agencies and stakeholder groups.
	3.13	Engage with communities, state agencies and organisations to carry out conservation and restoration of biodiversity sites through the provision of technical advice and where possible funding supports (e.g. sand dunes, native woodlands, hedgerows, marine habitats, semi-natural grasslands)
	3.14	Work with LAWPRO, IFI and other bodies to develop strategies for safeguarding and improving river corridors for wildlife to enhance aquatic biodiversity.
	3.15	Complete the actions for councils outlined in the All-Ireland Pollinator Plan, promote the initiative, and identify new sites for the management of pollinators.
	3.16	Develop and implement initiatives that build on and support the protection of birds of conservation concern (e.g. red-listed bird species and Annex I birds (EU Birds Directive)), commission surveys and identify enhancement opportunities in partnership with key stakeholders.
	3.17	Support collaboration and sharing of ecological studies (where possible) between organisations that deliver practical measures for the conservation of habitats and species in the county.
	3.18	Develop and implement Biodiversity Conservation Management Plans/Management Strategies for sites of ecological importance within Clare County Council's landbank.

Objective	Action Code	Action
Objective 4: Raise awareness and appreciation of biodiversity within the county through education, training and outreach initiatives.	4.1	Collaborate with cross functional departments within Clare County Council (e.g. Tourism, Clare Libraries and the Environmental Awareness Officer) to raise awareness of biodiversity during National Biodiversity Week and National Heritage Week and participate in citizen science initiatives.
	4.2	Promote and raise awareness of biodiversity and climate adaptation during Climate Action Week and National Tree Week.
	4.3	Support and promote active participation in the An Taisce Green Schools programme through the Clare Schools Biodiversity Programme, forest schools initiatives and engage with students in third level institutions.
	4.4	Support the implementation of the Heritage in Schools Scheme as it relates to biodiversity.
	4.5	Promote and raise awareness of biodiversity through the arts in partnership with Clare Libraries, the Arts Office, Creative Ireland and other organisations.
	4.6	Develop interventions that address Invasive Alien Species through education and awareness; and promote recording of invasive species in the county.
	4.7	Raise awareness of the biodiversity work programme to the public through the media, online digital platforms including CCC's website, publications, social media e.g. 'Greener Clare' and install wildlife signage in public spaces.
	4.8	Profile and raise awareness of habitats and species of the Shannon Estuary, Galway Bay and other sites in the County.
	4.9	Continue to work with LAWPRO, IFI and other bodies to promote awareness of aquatic ecosystems (e.g. natural watercourses, riparian corridors and lakes).
	4.10	Promote and raise awareness of the county's flora and fauna and nature positive initiatives (e.g. dark skies) to community groups, educational institutions, landowners and other stakeholders working in partnership with key organisations.
	4.11	Raise awareness and promote the conservation importance of bird species (e.g. White-tailed sea eagle, chough, raptors, seabirds) of County Clare.
	4.12	Promote recording of species groups and support studies that inform species conservation status and ecosystem health

Objective	Action Code	Action
	4.13	Implement biodiversity awareness and conservation training within the Council's county-wide 'Code of Practice' for sustainable tourism in Clare tourism businesses to encourage engagement in biodiversity conservation and enhancement actions.
	4.14	Produce ecological guidelines and publication of resource material (e.g. booklets)
Objective 5: Enhance collaboration among all stakeholders adopting a whole of society approach to protect, conserve and enhance biodiversity within the county.	5.1	Develop and implement an initiative to work with faith communities to carry out biodiversity actions on church grounds, graveyards and parish lands.
	5.2	Collaborate with recreational sports clubs, businesses and schools to carry out biodiversity actions and promote citizen science.
	5.3	Work with key stakeholders (landowners, NGOs, local communities and other relevant groups) in the conservation of semi-natural habitats (e.g. native trees, hedgerows) and promote uptake of schemes that benefit biodiversity (e.g. DAFM Native Woodland Schemes).
	5.4	Support marine and coastal organisations to build strategic alliances in marine areas working in partnership with local communities and key stakeholders to promote marine biodiversity, data collection and management actions.
	5.5	Collaborate and support organisations in the county to provide biodiversity training to local communities, landowners and farmers and where possible, support biodiversity themed festivals and events.
	5.6	Promote and engage local communities (e.g. Tidy Towns, local interest groups) to develop Community Biodiversity Action Plans, biodiversity initiatives, advise on funding streams, and encourage citizen science initiatives at a local level.
	5.7	Engage and support local communities, landowners, the National Parks and Wildlife Service, and other relevant stakeholders to protect the Burren National Park, all wildlife sanctuaries, proposed NHAs, nature reserves and natural watercourses, and that their educational and conservation values are enhanced and promoted.
	5.8	Where feasible, support and engage with locally and nationally led European Innovation Partnership (EIP), LIFE Programmes and Priority Action Areas projects wherever possible.
	5.9	Continue to collaborate and partner with members of the Clare Biodiversity Forum to advise and deliver actions under the Clare Biodiversity Action Plan 2025-2031 working in partnership with the Heritage Forum.

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 Clare County Development Plan 2023-2029.
- Clare Local Authority Climate Action Plan 2024-2029.
- Clare County Heritage Plan 2024-2030.

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 Green and Blue Urban Environments (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 Environmental Effects
Objective 1: Support and strengthen knowledge repositories to conserve, manage and enhance biodiversity and ecosystem services within the country through data collection, mapping and research.	1.1	Develop an Ecological Network Map (ENM) of Clare to inform landscape connectivity for wildlife and protect the county's Green Infrastructure assets taking cognisance of ecological corridors, stepping stones and pinch points.	This action proposes the development of an Ecological Network Map of Clare. This will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	1.2	Strengthen understanding of natural capital and ecosystem services.	This action promotes better biodiversity baseline understanding. It has the potential to improve biodiversity related knowledge and underpin and support biodiversity improvements within Clare. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	1.3	Undertake a study to identify, map and enhance 'Locally Important Biodiversity Sites' (LIBS) and ecological corridors to inform Green Infrastructure Strategies with a view to protecting this ecological resource.	This action aims to study and enhance LIBS and ecological corridors in Clare to better protect this resource. This will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	1.4	Continue to undertake county wide habitat surveys and mapping, building on previous baseline inventory surveys to inform data collection and the ongoing development of the Ecological Network Map.	This action proposes the carrying out of county wide habitat surveying and mapping in Clare. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	1.5	Carry out a biodiversity audit of the Council's landbank with a view to implementing enhancement actions.	This action proposes a biodiversity audit of the Clare County Council landbank. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	1.6	Engage with third level institutions and other research bodies to support scientific research in the field of biodiversity in collaboration with CCC.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in Clare. It will contribute to the effective delivery of the plan and biodiversity improvements generally. It has the potential to improve biodiversity related expertise and enhance biodiversity knowledge. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	1.7	Research sites of natural conservation value along the Clare coastline to fully understand the implications of climate change and sea level rise and the potential approaches to mitigation, adaptation and building resilience.	This action proposes research of climate impacts on sites of natural conservation value along Clare's coastline. This will better inform climate change mitigation and adaption and support effective implementation of the plan, potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
Objective 2: Promote and integrate biodiversity conservation into decision-making processes and operations through policy, best practice and procedures.	2.1	Promote best practice in the use of pesticides in Clare County Council's operations in adherence with *Clare County Council's Biodiversity Manual: Biodiversity Best Practice Guidelines* for herbicide use.	This action supports the prevention and reduction of pesticide pollution that may affect biodiversity components in Clare. 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. It does not have the potential to generate any adverse environmental effects.
	2.2	Deliver biodiversity training courses to council staff and external contractors and implement the *Clare County Council's Biodiversity Manual: Biodiversity Best Practice Guidelines* into Council operations.	This action promotes biodiversity related training and available guidelines for council staff and external contractors. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within the plan area. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	2.3	Deliver hedgerow training courses to council staff and hedge cutting contractors.	This action promotes biodiversity related hedgerow training. It has the potential to improve the protection and management of hedgerows in Clare. Hedgerows are an integral biodiversity feature 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. It does not have the potential to generate any adverse environmental effects.

Objective	Action Code	Action	Potential Environmental Effects
	2.4	Retain natural features and promote and incorporate biodiversity enhancement in the design of new buildings, housing, public realm projects and other proposals as appropriate (e.g. swift nest boxes/swift bricks, native tree planting, rain gardens (SuDS), street scapes, pollinator friendly measures).	This action supports the integration of biodiversity consideration and improvements within the land use framework and Clare county council projects. It has the potential to contribute to the realization of positive effects on biodiversity, as well as co-benefits for other environmental components. It does not have the potential to generate any adverse environmental effects, outside of what has already been considered and mitigated under land use planning framework SEA and AA processes.
	2.5	Incorporate and promote Biodiversity Net Gain and nature-based solutions into practice and decision-making in CCC	This action supports the development and integration of policy where biodiversity consideration and improvements within the development planning process are taken into account. This includes the use of nature-based solutions into practice and decision-making within the Local Authority. It has the potential to contribute to the realization of positive effects on biodiversity, as well as co-benefits for other environmental components. It does not have the potential to generate any adverse environmental effects.
	2.6	Protect all designated European sites (SACs and SPAs) in accordance with the EU Habitats Directive; and separately NHA sites ensuring all proposed development are subject to ecological assessment requirements.	This action will support the conservation of key species and habitats in European and NHA sites present in Clare and connected areas. It has the potential to generate a positive effects for these sites and for biodiversity generally. It does not have the potential to generate any adverse environmental effects.
	2.7	Adopt 'bat friendly' lighting for new public lighting proposals and upgrade/retrofit existing lighting infrastructure wherever possible to strengthen dark corridors for bats and nocturnal mammals.	This action supports the control and management of public lighting in Clare. It will contribute to preventing and reducing the impact of lighting on light sensitive species, such as bat species, whilst also ensuring adequate lighting for population safety. This action has the potential to have positive effects for biodiversity. It does not have the potential to generate any adverse environmental effects.
	2.8	Protect bat roosts sites and ensure development proposals are subject to appropriate ecological assessments; and identify biodiversity enhancement opportunities.	This action will support the conservation of bats present in Clare and connected areas. It has the potential to generate a positive effects for this key species and for biodiversity generally. It does not have the potential to generate any adverse environmental effects.

Objective	Action Code	Action	Potential Environmental Effects
	2.9	Align projects delivered under the Clare Biodiversity Action Plan 2025-2031 with Sustainable Development Goals (SDG) using the Accelerator Action Tool	This action will create and foster a collaborative approach between biodiversity and sustainable development by taking into account the SDGs in any biodiversity initiatives and projects in Clare. It will contribute to the effective delivery of the plan while also promoting other sustainable practices. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	2.10	Engage with the Council led visitor attractions that Visitor Management Plans are completed which include the management of visitor impacts and reduction of threats such as disturbance and habitat degradation to sensitive ecological receptors.	This action will aim to protect and enhance biodiversity at council led visitor attractions. 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. It does not have the potential to generate any adverse environmental effects.
Objective 3: Deliver actions which aim to conserve, restore and enhance biodiversity and reserve biodiversity loss at a county wide level by 2031.	3.1	Identify potential biodiversity opportunities for tree planting and woodland creation.	This action is aimed at using tree planting to enhance biodiversity within 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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.2	Undertake a woodland inventory survey to identify and map native woodland habitats in the county.	This action proposes the carrying out of a woodland inventory survey in the county. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.3	Undertake a tree survey for identified locations in the county	This action proposes the carrying out of a tree survey in the county. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	3.4	Where possible, support local nurseries specialising in the conservation of native trees, plants, seeds and genetic food crops that are of provenance to County Clare.	This action promotes the use of native species in Clare. The promotion of native species of local provenance has the potential contribute to ecological diversity within the Plan Area. This action has the potential to have positive effects for biodiversity, as well as co-benefits for other environmental components. It does not have the potential to generate any adverse environmental effects.
	3.5	Support and promote local organisations that develop and implement biodiversity initiatives working with farmers, landowners and local communities to establish native woodlands, native tree planting, traditional orchards, pond creation, and other biodiversity enhancement measures.	This action will create and foster a collaborative approach to implementing native species biodiversity initiatives and improving native species biodiversity in Clare. The promotion of native species of local provenance has the potential to 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. It does not have the potential to generate any adverse environmental effects.
	3.6	Undertake a hedgerow and treeline audit at sites of ecological importance for the Lesser Horseshoe Bat and other species working in partnership with key organisations.	This action proposes the undertaking of a treeline and hedgerow audit at sites of ecological importance. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements, particularly in the case of the Lesser Horseshoe Bat. Hedgerows and treelines are an integral biodiversity feature 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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.7	Undertake a county-wide wetland inventory survey to identify and map the wetland resource in County Clare.	This action proposes the carrying out of a county-wide wetland inventory survey. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements in County Clare's wetland areas. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	3.8	Support and work with landowners in the county to carry out restoration and biodiversity enhancement projects (e.g. peatlands, grassland conservation, marsh fritillary butterfly)	This action will create and foster a collaborative approach to carrying out restoration and biodiversity enhancement projects in Clare. It will contribute to the effective delivery of the plan and has the potential to generate a positive effects for a range of key species and for biodiversity generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.9	Continue to support rare flora surveys including both terrestrial and aquatic environments working in partnership with BSBI, NPWS, IFI and other relevant agencies.	This action will create and foster a collaborative approach to improving biodiversity in Clare through increased biodiversity knowledge by surveys. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.10	Continue to support the work of the Shannon Dolphin Project including monitoring surveys of bottlenose dolphins, mapping habitats of the Shannon Estuary, habitat restoration, outreach communication and education programmes; and ongoing scientific research.	This action will create and foster a collaborative approach to bottlenose dolphin conservation in The Shannon Estuary. It will contribute to the effective delivery of the plan and has the potential to generate a positive effects for this key species and for biodiversity generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.11	Upon publication of the National Invasive Species Management Plan, explore the feasibility of developing an Invasive Species Management Strategy for the county	This action will prevent and minimise the spread of invasive species in Clare by having management strategy resources available. 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. It does not have the potential to generate any adverse environmental effects.
	3.12	Support targeted surveys and eradication programmes for the treatment and control of invasive alien species in partnership with the relevant agencies and stakeholder groups.	This action will create and foster a collaborative approach to invasive species control in Clare. It will contribute to the effective delivery of the plan and has the potential to have positive effects for biodiversity, such as native species and habitats, that are at risk due to invasive species spread. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	3.13	Engage with communities, state agencies and organisations to carry out conservation and restoration of biodiversity sites through the provision of technical advice and where possible funding supports (e.g. sand dunes, native woodlands, hedgerows, marine habitats, semi-natural grasslands)	The action is engagement-based with the intention to support restoration and conservation of biodiversity sites through the provision of technical advice and funding supports. The action has the potential to have positive effects for biodiversity (native species and habitats). It does not have the potential to generate any adverse environmental effects.
	3.14	Work with LAWPRO, IFI and other bodies to develop strategies for safeguarding and improving river corridors for wildlife to enhance aquatic biodiversity.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in Clare's aquatic ecosystems. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	3.15	Complete the actions for councils outlined in the All-Ireland Pollinator Plan, promote the initiative, and identify new sites for the management of pollinators.	This action will support the conservation of pollinator species present in Clare and connected areas. It has the potential to generate a positive effects for pollinators and for biodiversity generally. It does not have the potential to generate any adverse environmental effects.
	3.16	Develop and implement initiatives that build on and support the protection of birds of conservation concern (e.g. red-listed bird species and Annex I birds (EU Birds Directive)), commission surveys and identify enhancement opportunities in partnership with key stakeholders.	This action will support the conservation of protected bird species present in Clare and connected areas through a collaborative approach. This has the potential to generate positive effects for these key species and for biodiversity generally. It does not have the potential to generate any adverse environmental effects.
	3.17	Support collaboration and sharing of ecological studies (where possible) between organisations that deliver practical measures for the conservation of habitats and species in the county.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in Clare. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	3.18	Develop and implement Biodiversity Conservation Management Plans/Management Strategies for sites of ecological importance within Clare County Council's landbank.	This action proposes the development and implementation of Biodiversity Conservation Management Strategies for sites of ecological Clare County Council's landbank. It will underpin and support effective implementation of the plan and potentially lead to more focused and targeted biodiversity improvements. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
Objective 4: Raise awareness and appreciation of biodiversity within the county through education, training and outreach initiatives.	4.1	Collaborate with cross functional departments within Clare County Council (e.g. Tourism, Clare Libraries and the Environmental Awareness Officer) to raise awareness of biodiversity during National Biodiversity Week and National Heritage Week and participate in citizen science initiatives.	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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.2	Promote and raise awareness of biodiversity and climate adaptation during Climate Action Week and National Tree Week.	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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.3	Support and promote active participation in the An Taisce Green Schools programme through the Clare Schools Biodiversity Programme, forest schools initiatives and engage with students in third level institutions.	This action will promote awareness of biodiversity through Clare education 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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.4	Support the implementation of the Heritage in Schools Scheme as it relates to biodiversity.	This action will promote awareness of biodiversity through the scope of the Heritage in Schools Scheme. It has the potential to foster further interest in biodiversity protection and enhancement in younger children which can have implications on wider community biodiversity improvement. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	4.5	Promote and raise awareness of biodiversity through the arts in partnership with Clare Libraries, the Arts Office, Creative Ireland and other organisations.	This action will promote awareness of biodiversity through arts-based 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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.6	Develop interventions that address Invasive Alien Species through education and awareness; and promote recording of invasive species in the county.	This action will inhibit and minimise the spread of invasive species in Clare through increased education and awareness in the community. 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. It does not have the potential to generate any adverse environmental effects.
	4.7	Raise awareness of the biodiversity work programme to the public through the media, online digital platforms including CCC's website, publications, social media e.g. 'Greener Clare' and install wildlife signage in public spaces.	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 wider community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.8	Profile and raise awareness of habitats and species of the Shannon Estuary, Galway Bay and other sites in the County.	This action will promote awareness of biodiversity and biodiversity related initiatives relating to prominent harbours and estuaries, including Shannon Estuary and Galway Bay. It has the potential to foster further interest in biodiversity protection and enhancement of this area throughout the wider community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.9	Continue to work with LAWPRO, IFI and other bodies to promote awareness of aquatic ecosystems (e.g. natural watercourses, riparian corridors and lakes).	This action will promote awareness of biodiversity and biodiversity related initiatives relating to Clare's aquatic ecosystems. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	4.10	Promote and raise awareness of the county's flora and fauna and nature positive initiatives (e.g. dark skies) to community groups, educational institutions, landowners and other stakeholders working in partnership with key organisations.	This action will promote awareness of biodiversity and biodiversity related initiatives relating to Clare's wetlands. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.11	Raise awareness and promote the conservation importance of bird species (e.g. White-tailed sea eagle, chough, raptors, seabirds) of County Clare.	This action will support the conservation of the bird species of significance present within the Plan Area. It has the potential to generate a positive effects for these key species and for biodiversity generally through increased community interest in their biological protection. It does not have the potential to generate any adverse environmental effects.
	4.12	Promote recording of species groups and support studies that inform species conservation status and ecosystem health	This action will support the studies for keystone species that can inform species conservation status and ecosystem health. It has the potential to generate positive effects for the receiving natural environment. It does not have the potential to generate any adverse environmental effects.
	4.13	Implement biodiversity awareness and conservation training within the Council's county-wide 'Code of Practice' for sustainable tourism in Clare tourism businesses to encourage engagement in biodiversity conservation and enhancement actions.	This action promotes biodiversity related training within Clare's tourism sector . It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements, helping to pave the way to more sustainable tourism within the county. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	4.14	Produce ecological guidelines and publication of resource material (e.g. booklets)	This action will promote awareness of biodiversity and increase resources available to aid in improving biodiversity. It has the potential to foster further interest in biodiversity protection and enhancement throughout the local authority as an organisation and the wider community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
Objective 5: Enhance collaboration among all stakeholders adopting a whole of society approach to protect, conserve and enhance biodiversity within the county.	5.1	Develop and implement an initiative to work with faith communities to carry out biodiversity actions on church grounds, graveyards and parish lands.	This action will create and foster a collaborative approach between the council and community to improve biodiversity in areas associated with the faith community. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	5.2	Collaborate with recreational sports clubs, businesses and schools to carry out biodiversity actions and promote citizen science.	This action will create and foster a collaborative approach between the council and community to improve biodiversity. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	5.3	Work with key stakeholders (landowners, NGOs, local communities and other relevant groups) in the conservation of semi-natural habitats (e.g. native trees, hedgerows) and promote uptake of schemes that benefit biodiversity (e.g. DAFM Native Woodland Schemes).	This action will create and foster a collaborative approach between the council and community to improve biodiversity related to semi-natural habitats. The promotion of native species of local provenance has the potential contribute to ecological diversity and sustainability. 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. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	5.4	Support marine and coastal organisations to build strategic alliances in marine areas working in partnership with local communities and key stakeholders to promote marine biodiversity, data collection and management actions.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in Clare's marine and coastal environments. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.
	5.5	Collaborate and support organisations in the county to provide biodiversity training to local communities, landowners and farmers and where possible, support biodiversity themed festivals and events.	This action promotes biodiversity related training and events. It has the potential to improve biodiversity related expertise and underpin and support biodiversity improvements within Clare. It has the potential to foster further interest in biodiversity protection and enhancement throughout the community. This action will not result in the occurrence of a real, significant adverse environmental effects in and of itself.

Objective	Action Code	Action	Potential Environmental Effects
	5.6	Promote and engage local communities (e.g. Tidy Towns, local interest groups) to develop Community Biodiversity Action Plans, biodiversity initiatives, advise on funding streams, and encourage citizen science initiatives at a local level.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in local communities. It will contribute to the effective delivery of the plan and biodiversity improvements generally. It has the potential to foster further interest in biodiversity protection and enhancement throughout the community. This action will not result in the occurrence of any adverse environmental effects in and of itself.
	5.7	Engage and support local communities, landowners, the National Parks and Wildlife Service, and other relevant stakeholders to protect the Burren National Park, all wildlife sanctuaries, proposed NHAs, nature reserves and natural watercourses, and that their educational and conservation values are enhanced and promoted.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity in areas of natural importance in Clare. It will contribute to the effective delivery of the plan and biodiversity improvements generally. It has the potential to foster further interest in biodiversity protection and enhancement throughout the community. This action will not result in the occurrence of real, significant adverse environmental effects in and of itself.
	5.8	Where feasible, support and engage with locally and nationally led European Innovation Partnership (EIP), LIFE Programmes and Priority Action Areas projects wherever possible.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effect in and of itself.
	5.9	Continue to collaborate and partner with members of the Clare Biodiversity Forum to advise and deliver actions under the Clare Biodiversity Action Plan 2025-2031 working in partnership with the Heritage Forum.	This action will create and foster a collaborative approach to implementing biodiversity initiatives and improving biodiversity under Clare's biodiversity Action Plan 2024-2031. It will contribute to the effective delivery of the plan and biodiversity improvements generally. This action will not result in the occurrence of a real, significant adverse environmental effect in and of itself.

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 a 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 Clare
- All hydrologically connected European Sites to waterbodies within County Clare ; and
- All European sites within a 15km buffer of County Clare

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 Area of Conservation as per article 17 reporting from the National Parks and Wildlife Services.

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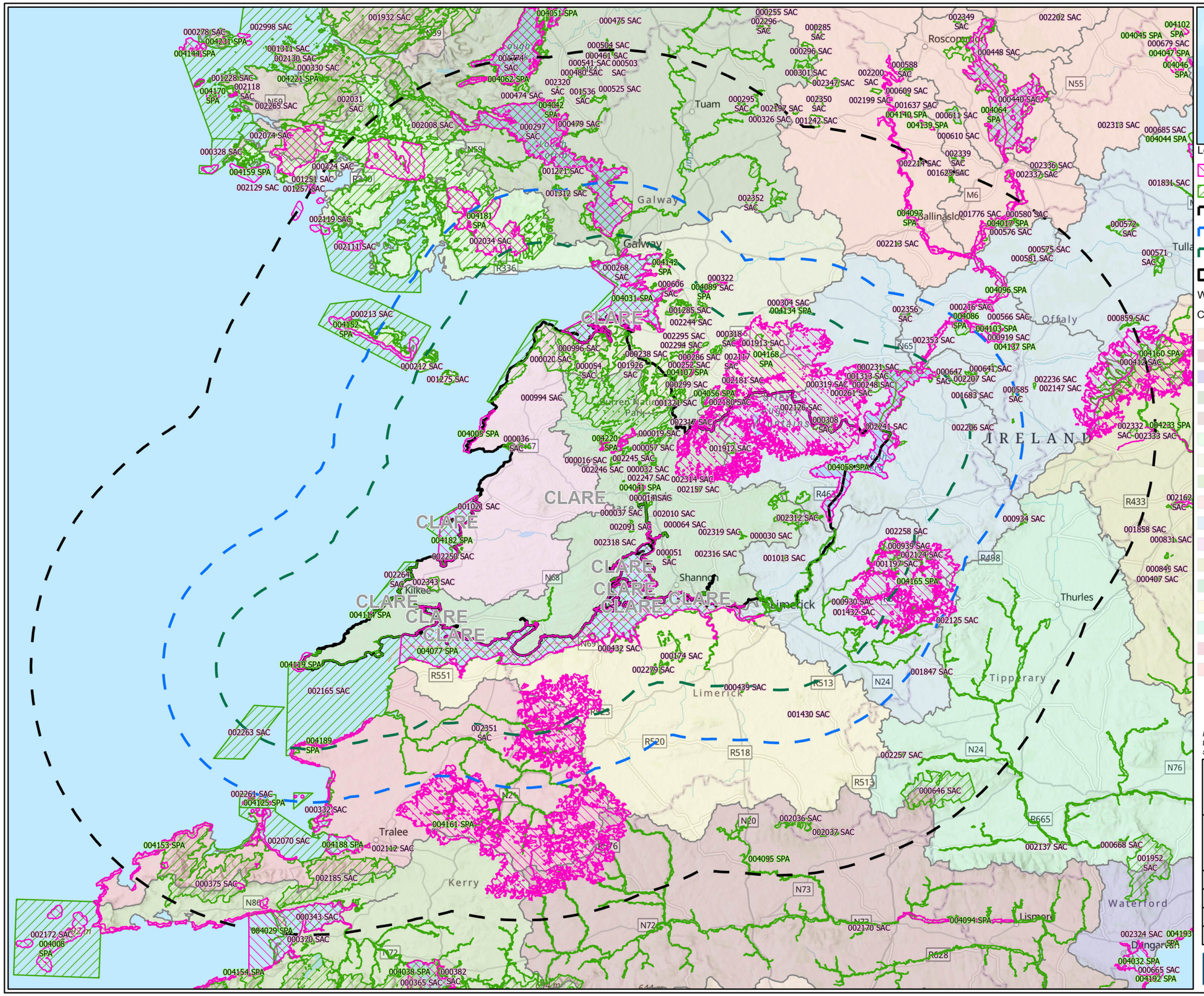

Legend

- Special Protection Areas
- Special Area of Conservation
- 50km Buffer
- 25km Buffer
- 15km Buffer
- CountyBoundaries

WFD Catchments

Catchment Name

- Barrow
- Blackwater (Munster)
- Colligan-Mahon
- Corrib
- Erriff-Clew Bay
- Galway Bay North
- Galway Bay South East
- Laune-Maine-Dingle Bay
- Lee, Cork Harbour and Youghal Bay
- Lower Shannon
- Mal Bay
- Nore
- Shannon Estuary North
- Shannon Estuary South
- Suir
- Tralee Bay-Feale
- Upper Shannon

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: Clare Local Authority Biodiversity Action Plan			
FIGURE NO:	3.1		
CLIENT:	Clare County Council		
SCALE:	1:700,000	**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
000014	Ballyallia Lake SAC	0	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]	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 Effect
000016	Ballycullinan Lake SAC	0	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	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 Effect
000019	Ballyogan Lough SAC	0	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	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 Effect
000020	Black Head-Poulsallagh Complex SAC	0	Perennial vegetation of stony banks [1220], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Petalwort (Petalophyllum ralfsii) [1395], Petrifying springs with tufa formation (Cratoneurion) [7220], Juniperus communis formations on heaths or calcareous grasslands [5130], Reefs [1170], Fixed	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 Effect

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
			coastal dunes with herbaceous vegetation - grey dunes [2130], Limestone pavements [8240], Alpine and Boreal heaths [4060], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260]				
000030	Danes Hole, Poulnalecka SAC	0	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
000032	Dromore Woods and Loughs SAC	0	Otter (Lutra lutra) [1355], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430], Limestone pavements [8240]	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 Effect
000036	Inagh River Estuary SAC	0	Mediterranean salt meadows (Juncetalia maritimi) [1410], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120]	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 Effect

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
000037	Pouladatig Cave SAC	0	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
000051	Lough Gash Turlough SAC	0	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	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 Effect
000054	Moneen Mountain SAC	0	Petrifying springs with tufa formation (Cratoneurion) [7220], Limestone pavements [8240], Alpine and Boreal heaths [4060], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Juniperus communis formations on heaths or calcareous grasslands [5130], Marsh Fritillary (Euphydryas aurinia) [1065], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Turloughs [3180]	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 Effect
000057	Moyree River System SAC	0	Caves not open to the public [8310], Limestone pavements [8240], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Otter (Lutra lutra) [1355], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Alkaline fens [7230]	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 Effect

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
000064	Poulnagordon Cave (Quin) SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	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 Effect
000268	Galway Bay Complex SAC	0	Harbour seal (Phoca vitulina) [1365], Perennial vegetation of stony banks [1220], Mediterranean salt meadows (Juncetalia maritimi) [1410], Alkaline fens [7230], Otter (Lutra lutra) [1355], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Limestone pavements [8240], Turloughs [3180], Reefs [1170], Salicornia and other annuals colonising mud and sand [1310], Mudflats and sandflats not covered by seawater at low tide [1140], Large shallow inlets and bays [1160], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Juniperus communis formations on heaths or calcareous grasslands [5130], Coastal lagoons [1150]	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 Effect

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
000308	Loughatorick South Bog SAC	0	Blanket bogs * if active bog [7130]	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 Effect
000994	Ballyteige (Clare) SAC	0	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	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 Effect
000996	Ballyvaughan Turlough SAC	0	Turloughs [3180]	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 Effect
001013	Glenomra Wood SAC	0	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
001021	Carrowmore Point to Spanish Point and Islands SAC	0	Reefs [1170], Perennial vegetation of stony banks [1220], Coastal lagoons [1150], Petrifying springs with tufa formation (Cratoneurion) [7220]	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 Effect

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
001321	Termon Lough SAC	0	Turloughs [3180]	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 Effect
001912	Glendree Bog SAC	0	Blanket bogs * if active bog [7130]	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 Effect
001926	East Burren Complex SAC	0	Petrifying springs with tufa formation (Cratoneurion) [7220], Alkaline fens [7230], Otter (Lutra lutra) [1355], Marsh Fritillary (Euphydryas aurinia) [1065], Alpine and Boreal heaths [4060], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Calaminarian grasslands of the Violetalia calaminariae [6130], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Juniperus communis formations on heaths or calcareous grasslands [5130], Caves not open to the public [8310], Semi-natural dry grasslands and scrubland	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 Effect

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
			facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240], Turloughs [3180]				
002010	Old Domestic Building (Keevagh) SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002091	Newhall and Edenvale Complex SAC	0	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002126	Pollagoona Bog SAC	0	Blanket bogs * if active bog [7130]	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 Effect
002157	Newgrove House SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002165	Lower River Shannon SAC	0	Large shallow inlets and bays [1160], Sandbanks which are slightly covered by sea water all the time [1110], Sea lamprey (Petromyzon marinus) [1095], Estuaries [1130], Coastal lagoons [1150], Molinia meadows on calcareous, peaty or clayey-silt-laden	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 Effect

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
			soils (Molinion caeruleae) [6410], Bottlenose dolphin (Tursiops truncatus) [1349], Mudflats and sandflats not covered by seawater at low tide [1140], Perennial vegetation of stony banks [1220], Salicornia and other annuals colonising mud and sand [1310], Mediterranean salt meadows (Juncetalia maritimi) [1410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Otter (Lutra lutra) [1355], River lamprey (Lampetra fluviatilis) [1099], Reefs [1170], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Brook lamprey (Lampetra planeri) [1096], Atlantic salmon (Salmo salar) [1106], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330]				
002241	Lough Derg, North-East Shore SAC	0	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Limestone pavements [8240], Taxus baccata woods of the British Isles [91J0], Juniperus communis formations on heaths or calcareous grasslands [5130]	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 Effect

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
002245	Old Farm Buildings, Ballymacrogan SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002246	Ballycullinan, Old Domestic Building SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002247	Toonagh Estate SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002250	Carrowmore Dunes SAC	0	Embryonic shifting dunes [2110], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Reefs [1170], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Narrow-mouthed Whorl Snail (Vertigo angustior) [1014], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]	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 Effect
002264	Kilkee Reefs SAC	0	Reefs [1170], Large shallow inlets and bays [1160], Submerged or partially submerged sea caves [8330]	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 Effect

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
002312	Slieve Bernagh Bog SAC	0	Blanket bogs * if active bog [7130], European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010]	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 Effect
002314	Old Domestic Buildings, Rylane SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002316	Ratty River Cave SAC	0	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002318	Knockanira House SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002319	Kilkishen House SAC	0	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect

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
002343	Tullaher Lough and Bog SAC	0	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Transition mires and quaking bogs [7140]	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 Effect
004005	Cliffs of Moher SPA	0	Fulmar (Fulmarus glacialis) [A009], Razorbill (Alca torda) [A200], Kittiwake (Rissa tridactyla) [A188], Guillemot (Uria aalge) [A199], Chough (Pyrrhocorax pyrrhocorax) [A346], Puffin (Fratercula arctica) [A204]	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 Effect
004031	Inner Galway Bay SPA	0	Grey Heron (Ardea cinerea) [A028], Wetland and Waterbirds [A999], Black-throated Diver (Gavia arctica) [A002], Ringed Plover (Charadrius hiaticula) [A137], Common Gull (Larus canus) [A182], Sandwich Tern (Sterna sandvicensis) [A191], Dunlin (Calidris alpina) [A149], Wigeon (Anas penelope) [A050], Turnstone (Arenaria interpres) [A169], Cormorant (Phalacrocorax carbo) [A017], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Great Northern Diver (Gavia immer) [A003], Redshank (Tringa totanus) [A162], Teal (Anas crecca) [A052], Bar-tailed Godwit (Limosa lapponica) [A157], Common tern (Sterna hirundo) [A193], Black-headed Gull (Chroicocephalus ridibundus) [A179], Lapwing (Vanellus vanellus) [A142], Golden Plover (Pluvialis apricaria) [A140], Red-breasted Merganser (Mergus serrator) [A069], Curlew (Numenius arquata) [A160]	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 Effect

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
004041	Ballyallia Lough SPA	0	Wetland and Waterbirds [A999], Coot (Fulica atra) [A125], Black-tailed Godwit (Limosa limosa) [A156], Teal (Anas crecca) [A052], Shoveler (Anas clypeata) [A056], Gadwall (Anas strepera) [A051], Mallard (Anas platyrhynchos) [A053], Wigeon (Anas penelope) [A050]	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 Effect
004058	Lough Derg (Shannon) SPA	0	Common tern (Sterna hirundo) [A193], Tufted Duck (Aythya fuligula) [A061], Goldeneye (Bucephala clangula) [A067], Cormorant (Phalacrocorax carbo) [A017], Wetland and Waterbirds [A999]	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 Effect
004077	River Shannon and River Fergus Estuaries SPA	0	Lapwing (Vanellus vanellus) [A142], Greenshank (Tringa nebularia) [A164], Teal (Anas crecca) [A052], Wetland and Waterbirds [A999], Shelduck (Tadorna tadorna) [A048], Whooper Swan (Cygnus cygnus) [A038], Black-headed Gull (Chroicocephalus ridibundus) [A179], Golden Plover (Pluvialis apricaria) [A140], Grey Plover (Pluvialis squatarola) [A141], Black-tailed Godwit (Limosa limosa) [A156], Ringed Plover (Charadrius hiaticula) [A137], Pintail (Anas acuta) [A054], Wigeon (Anas penelope) [A050], Shoveler (Anas clypeata) [A056], Bar-tailed Godwit (Limosa lapponica) [A157], Redshank (Tringa totanus) [A162], Cormorant (Phalacrocorax carbo) [A017], Knot (Calidris canutus) [A143], Scaup (Aythya marila) [A062], Dunlin (Calidris alpina) [A149], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Curlew (Numenius arquata) [A160]	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 Effect

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
004114	Illaunonearaun SPA	0	Barnacle goose (Branta leucopsis) [A045]	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 Effect
004119	Loop Head SPA	0	Kittiwake (Rissa tridactyla) [A188], Guillemot (Uria aalge) [A199]	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 Effect
004168	Slieve Aughty Mountains SPA	0	Merlin (Falco columbarius) [A098], Hen harrier (Circus cyaneus) [A082]	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 Effect
004182	Mid-Clare Coast SPA	0	Barnacle goose (Branta leucopsis) [A045], Dunlin (Calidris alpina) [A149], Ringed Plover (Charadrius hiaticula) [A137], Wetland and Waterbirds [A999], Sanderling (Calidris alba) [A144], Turnstone (Arenaria interpres) [A169], Purple Sandpiper (Calidris maritima) [A148], Cormorant (Phalacrocorax carbo) [A017]	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 Effect
004220	Corofin Wetlands SPA	0	Whooper Swan (Cygnus cygnus) [A038], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Wetland and Waterbirds [A999], Wigeon (Anas penelope) [A050], Little Grebe (Tachybaptus ruficollis) [A004]	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 Effect

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
002317	Cregg House Stables, Crusheen SAC	0.19	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
002180	Gortacarnaun Wood SAC	0.27	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
004107	Coole-Garryland SPA	0.98	Whooper swan (Cygnus cygnus) [A038]	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 Effect
000252	Coole-Garryland Complex SAC	0.99	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Limestone pavements [8240], Taxus baccata woods of the British Isles [91J0], Juniperus communis formations on heaths or calcareous grasslands [5130], Turloughs [3180]	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 Effect

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
002181	Drummin Wood SAC	1.51	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
000238	Caherglassaun Turlough SAC	2.66	Turloughs [3180], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270]	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 Effect
000299	Lough Cutra SAC	2.9	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
004056	Lough Cutra SPA	2.92	Cormorant (Phalacrocorax carbo) [A017]	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 Effect
002279	Askeaton Fen Complex SAC	4.41	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Alkaline fens [7230]	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 Effect

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
000261	Derrycrag Wood Nature Reserve SAC	4.91	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
000432	Barrigone SAC	4.91	Limestone pavements [8240], Marsh Fritillary (Euphydryas aurinia) [1065], Juniperus communis formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	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 Effect
002294	Cahermore Turlough SAC	5.54	Turloughs [3180]	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 Effect
000248	Cloonmoylan Bog SAC	5.99	Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Bog woodland [91D0]	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 Effect
000286	Kiltartan Cave (Coole) SAC	6.23	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	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 Effect

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
000174	Curraghchase Woods SAC	6.31	Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], Taxus baccata woods of the British Isles [91J0], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	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 Effect
000606	Lough Fingall Complex SAC	6.86	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Turloughs [3180], Juniperus communis formations on heaths or calcareous grasslands [5130], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Alpine and Boreal heaths [4060]	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 Effect
000319	Pollnaknockaun Wood Nature Reserve SAC	7.26	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
001275	Inisheer Island SAC	7.29	Reefs [1170], Coastal lagoons [1150], Limestone pavements [8240], European dry heaths [4030], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510]	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 Effect

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
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	7.42	Hen harrier (Circus cyaneus) [A082]	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 Effect
000930	Clare Glen SAC	7.54	Killarney fern (Trichomanes speciosum) [1421], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect
002295	Ballinduff Turlough SAC	7.68	Turloughs [3180]	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 Effect
002263	Kerry Head Shoal SAC	7.77	Reefs [1170]	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 Effect
001313	Rosturra Wood SAC	7.81	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	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 Effect

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
001913	Sonnagh Bog SAC	7.84	Blanket bogs * if active bog [7130]	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 Effect
004165	Slievefelim to Silvermines Mountains SPA	7.98	Hen harrier (Circus cyaneus) [A082]	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 Effect
002293	Carrowbaun, Newhall and Ballylee Turloughs SAC	8.17	Turloughs [3180]	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 Effect
002258	Silvermines Mountains West SAC	8.79	Calaminarian grasslands of the Violetalia calaminariae [6130], European dry heaths [4030], Northern Atlantic wet heaths with Erica tetralix [4010]	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 Effect
002117	Lough Coy SAC	9.11	Turloughs [3180]	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 Effect

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
000231	Barroughter Bog SAC	9.36	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150]	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 Effect
001432	Glenstal Wood SAC	9.58	Killarney fern (Trichomanes speciosum) [1421]	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 Effect
000318	Peterswell Turlough SAC	10.02	Turloughs [3180], Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270]	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 Effect
002244	Ardrahan Grassland SAC	10.15	Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alpine and Boreal heaths [4060]	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 Effect
001285	Kiltiernan Turlough SAC	10.81	Turloughs [3180]	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 Effect

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
004189	Kerry Head SPA	11.13	Northern fulmar (Fulmarus glacialis) [A009], Chough (Pyrrhocorax pyrrhocorax) [A346]	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 Effect
001197	Keeper Hill SAC	11.27	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130]	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 Effect
000297	Lough Corrib SAC	11.28	Active raised bogs [7110], Petrifying springs with tufa formation (Cratoneurion) [7220], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Slender naiad (Najas flexilis) [1833], Sea lamprey (Petromyzon marinus) [1095], Otter (Lutra lutra) [1355], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Depressions on peat substrates of the Rhynchosporion [7150], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Degraded raised bogs still capable of natural regeneration [7120],	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 Effect

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
			Bog woodland [91D0], Alkaline fens [7230], White-clawed crayfish (Austropotamobius pallipes) [1092], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Limestone pavements [8240], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Brook lamprey (Lampetra planeri) [1096], Atlantic salmon (Salmo salar) [1106], Slender green feather-moss (Hamatocaulis vernicosus) [6216]				
002034	Connemara Bog Complex SAC	11.85	Atlantic salmon (Salmo salar) [1106], Coastal lagoons [1150], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Slender naiad (Najas flexilis) [1833], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Natural dystrophic lakes and ponds [3160], Reefs [1170], Transition mires and quaking bogs [7140], Otter (Lutra lutra) [1355], Depressions on peat substrates of the Rhynchosporion [7150], Northern Atlantic wet heaths with Erica tetralix [4010], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Marsh Fritillary (Euphydryas aurinia) [1065], Alkaline fens [7230], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], European dry heaths [4030], Oligotrophic to mesotrophic standing	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 Effect

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
			waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Blanket bogs * if active bog [7130]				
004142	Cregganna Marsh SPA	12.05	Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	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 Effect
000212	Inishmaan Island SAC	12.53	European dry heaths [4030], Embryonic shifting dunes [2110], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Perennial vegetation of stony banks [1220], Reefs [1170], Machairs * in Ireland [21A0], Limestone pavements [8240], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	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 Effect
000216	River Shannon Callows SAC	12.96	Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Alkaline fens [7230], Limestone pavements [8240], Otter (Lutra lutra) [1355], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	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 Effect

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
004096	Middle Shannon Callows SPA	12.98	Black-tailed Godwit (Limosa limosa) [A156], Corncrake (Crex crex) [A122], Whooper Swan (Cygnus cygnus) [A038], Lapwing (Vanellus vanellus) [A142], Golden Plover (Pluvialis apricaria) [A140], Wetland and Waterbirds [A999], Wigeon (Anas penelope) [A050], Black-headed Gull (Chroicocephalus ridibundus) [A179]	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 Effect
000242	Castletaylor Complex SAC	13.1	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240], Turloughs [3180], Alpine and Boreal heaths [4060], Juniperus communis formations on heaths or calcareous grasslands [5130]	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 Effect
004181	Connemara Bog Complex SPA	13.53	Cormorant (Phalacrocorax carbo) [A017], Merlin (Falco columbarius) [A098], Common Gull (Larus canus) [A182], Golden Plover (Pluvialis apricaria) [A140]	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 Effect
000439	Tory Hill SAC	13.91	Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	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 Effect

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
000939	Silvermine Mountains SAC	13.95	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]	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 Effect
002351	Moanveanlagh Bog SAC	13.98	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	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 Effect
004042	Lough Corrib SPA	14.71	Black-headed Gull (Chroicocephalus ridibundus) [A179], Pochard (Aythya ferina) [A059], Common Scoter (Melanitta nigra) [A065], Coot (Fulica atra) [A125], Shoveler (Anas clypeata) [A056], Wetland and Waterbirds [A999], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395], Golden Plover (Pluvialis apricaria) [A140], Hen Harrier (Circus cyaneus) [A082], Common tern (Sterna hirundo) [A193], Tufted Duck (Aythya fuligula) [A061], Gadwall (Anas strepera) [A051], Common Gull (Larus canus) [A182], Arctic tern (Sterna paradisaea) [A194]	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 Effect

4. SCREENING CONCLUSION

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).

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.
000037	Pouladatig Cave SAC	A good example of a natural active limestone cave. As >100 Lesser Horseshoe Bats (Rhinolophus hipposideros) use this site as a winter hibernation roost it is a site of international importance. The surrounding scrub and hedgerows provide necessary shelter for the bats.	Pouladatig Cave is a natural limestone cave situated near Inch Bridge west of Ennis County Clare. It is a short active stream cave with some rock falls and small chambers. The cave entrance is small and is sheltered by hawthorn trees. After the entrance there is a low bedding crawl but the cave then opens out into roomier passageways. The length of the cave is approx. 100 m. Cave habitats include flowing water mud banks boulders rock roof and walls. The cave is used as a hibernation site by Rhinolophus hipposideros. The surrounding scrub vegetation and hedgerows is included in the site as it provides foraging areas and shelter for the bats.
000054	Moneen Mountain SAC	The site contains four priority Annex I habitats. The overall quality of the site is further emphasised by the diverse range and continuous nature of high quality limestone habitats present over such a large area. Another important feature is the presence of Pyrola media a Red Data Book species confined to upland heaths. Also noteworthy is the presence of Meles meles and Martes martes both Red Data Book vertebrates. A summer colony of Rhinolophus hipposideros (>60i) occurs within the site. The site supports populations of Euphydryas aurinia.	This is a large composite site situated in north County Clare. The Carboniferous limestone rises into a series of rounded hills intersected by deep and often steep valleys to the north of the site before levelling out towards the south. The site encompasses a complete range of inland Burren habitats from open limestone pavement and its associated grasslands and heath to dense Corylus avellana scrub and patches of Fraxinus excelsior woodland. A small turlough is contained within the site.

Site Code	Site Name	Quality of Site	Other Site Characteristics
000212	Inishmaan Island SAC	Inishmaan is an outstanding site with a rich and diverse range of Annex I habitats of karstic carboniferous limestone and of coastal types. Traditional agricultural in the form of rye cultivation is still carried out and provides a habitat for a number of rare and threatened arable weeds Lolium temulentum Bromius racemiosus and Avena strigosa. Many other (6) rare and some protected plant species also occur. Ornithologically the island is important for breeding Pyrrhocorax pyrrhocorax Sterna paradisaea and Sterna albifrons.	Inishmaan is the middle of the three Aran Islands situated approximately 15km off the west coast of County Clare. Geologically the island is an extension of the karstic carboniferous region of the burren. The shallow soil is a unique man-made combination of sand and seaweed built up over the centuries. Pockets of rendzina are found throughout the limestone pavement.
000238	Caherglassaun Turlough SAC	The site is important as it contains the priority Annex I habitat turlough along with the Annex II species Rhinolophus hipposideros. The site is very unusual in its combination of permanent water daily (tidal) fluctuations turlough surroundings deep holes/cliffs and extensive flooded woodland. The site supports the Red Data Book plant species Limosella aquatica Rorippa islandica and Viola persicifolia along with an excellent variety of turlough and aquatic plant communities. These are generally eutrophic and there is little deposition of marl (Calcium Carbonate). The site supports small numbers of wildfowl.	The turlough lies in a basin with even slopes on the South and East sides and a series of low cliffs and limestone pavements on the North-West. Collapse features are notable here and to the west of the lakes. The whole area floods at times of high water though the lake is generally stable (apart from small tidal effects) in summer. Scrub/woodland is common in many places and it is inundated generally.
000252	Coole-Garryland Complex SAC	This is considered to be the most important turlough complex in the country and therefore in Europe. It contains many rare species and communities associated with turloughs and the unusual turlough/woodland transition. Also present is the Annex II species Lutra lutra. Contains only documented example of Chenopodietum rubri of submountainous river. Has important wintering waterfowl populations notably Cygnus cygnus in internationally important numbers and Cygnus columbianus and Anas penelope in nationally important numbers. Has breeding Vanellus vanellus.	This is a large site situated in a low lying karstic limestone area. It contains a series of seasonal lakes (Turloughs) fed by springs and a partly subterranean river surrounded by woodland pasture and limestone heath. The turlough plays host to two nationally rare species Limosella aquatica and Filipendula vulgaris. The juxtaposition between woodland and turlough provides ideal habitat for several important invertebrate faunal communities. The Red Data Book species Martes martes occurs within the site.

Site Code	Site Name	Quality of Site	Other Site Characteristics
000286	Kiltartan Cave (Coole) SAC	The site is a fine example of a natural limestone 'fossil' cave. It shows many representative cave features including gour pools and straw stalactites. As this site contains >50 Rhinolophus hipposideros in winter it is a site of international importance. It is the only major cave in the area and the only major hibernation site known for the Lesser Horseshoe in County Galway.	This site is a natural limestone cave. It is situated north of Coole Park just off the main Galway-Ennis road County Galway It is approximately 800 m in length and is a segment of an abandoned streamcourse of the Gort River. The entrance to the cave is reached by a 3 m descent after which the cave divides into two passageways. It is used as a hibernation site by approximately seventy-five Rhinolophus hipposideros. Most of the bats are found in the right-hand side passage.
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.
000606	Lough Fingall Complex SAC	This site has six annexed habitats including four priority habitats - turloughs orchid-rich calcareous grassland cladium fen and limestone pavement. The turlough habitat is one of the largest and most important in the country. The interplay and gradation between habitats results in valuable zonation and a diversity of conditions suiting many less common species. The site has an internationally important breeding population of Rhinolophus hipposideros. Some scarce invertebrate species occur at the site and two Red Data Book plant species.	This site lying within 2-3km of Galway Bay is within the stretch of flat low-lying bare limestone known as the Ardrahan limestones. It is characterised by a complex of habitats some of which are scarce and specialised. It includes a number of oligotrophic turloughs in which the characteristic vegetation is well developed. Limestone pavement is well represented along with calcareous grassland juniper scrub and the rare lowlands Arctostaphylos - Dryas heath. There are also some infilling shallow turlough-type lakes. The well-known 'Burren flora' is well-represented. A large building at Cloghballymore provides a breeding site for the Lesser Horseshoe Bat (Rhinolophus hipposideros) while surrounding mixed woodland provides ideal foraging habitat.

Site Code	Site Name	Quality of Site	Other Site Characteristics
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.
000994	Ballyteige (Clare) SAC	Though small in extent this site supports a good example of a habitat that in Ireland is in urgent need of conservation. Many such species-diverse wet meadows have been radically altered through drainage re-seeding and fertilization and examples such as this in which traditional management practices have been continued are becoming much rarer.	This small site lies over carboniferous shales over which a poorly-draining acid gley soil has developed. The principal habitat on the site is wet grassland of the Junco acutiflori-molinietum type in which grass and rush species predominate. A noteworthy feature of the site is the great abundance of the marsh orchid Dactylorhiza majalis. The fauna of the site has not been studied but it is liable to be quite rich.
000996	Ballyvaughan Turlough SAC	The main interest in this small turlough site is the abundance of the Red Data species Potentilla fruticosa. Good diversity of habitat in a small area and noted for its plant species diversity. Relatively undisturbed and could benefit from regular light grazing. Good representation of some of the habitats of the burren region.	Site is situated in a depression with frequent limestone outcrops. It is a rather dry turlough and dominated by shrubs. A small pond marks the location of a spring which occasionally floods the whole site. The drier areas of limestone paving have a typical flora including orchids. Surrounded by Hazel scrub which merges into low woodland in places. Relatively undisturbed.
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.
001313	Rosturra Wood SAC	The site is important because the Quercus stands are remnants of an ancient woodland which was amongst the largest in Ireland until the 1940s. It also provides a refuge for species of flora and fauna which are otherwise scarce in the locality most notably the Red Data Book species Cephalanthera longifolia. Unfortunately, only a small portion of the site remains under deciduous woodland.	This site consists of two separate areas, the southern one of which is a nature reserve. The northern area is dominated by conifers while in the southern area the conifers have mostly been clear-felled. Oak woodland occurs mostly as a fringe around both areas. The underlying rock is Old Red Sandstone. The soils vary from thin acid podzols to deeper gleyed brown-earths.

Site Code	Site Name	Quality of Site	Other Site Characteristics
002091	Newhall and Edenvale Complex SAC	This is a good example of natural fossil limestone caves which are well covered. Together these sites rank as some of the most important Lesser Horseshoe (Rhinolophus hipposideros) sites in Europe containing over 4% of the Irish population.	Newhall and Edenvale Caves are natural fossil limestone caves. Newhall is a narrow dry passage formed along an inclined joint. The main passage of Edenvale Cave runs into a cliff for 15 m and is crossed by a number of other passages. The side passages run in two directions at acute angles to each other forming many intersections hence the local name 'The Catacombs'. The two caves are used by > 500 Lesser Horseshoe Bats as winter hibernation sites while a two storey farm outbuilding in the grounds of Newhall House is used as a summer breeding site. All three sites used by the bats are surrounded by mature woodland which provides essential foraging habitat and shelter.
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. 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.	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 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.
002181	Drummin Wood SAC	This oak woodland is classified as Blechno-Quercetum petraeae var. coryletosum. While of only moderate size it a good example of the type and generally of good quality. Typical structure Regeneration is good and is occurring in previously cut areas. Has the rare and Red Data Book species Cephalanthera longifolia. Both Martes martes and Meles meles occur. Similar woods of this quality are scarce in this part of country.	Site is situated in the foothills of the Slieve Aughty Mountains almost 3 km east of Lough Cutra. Area drains into the Owendalulleegh River. Over 60% of the site is wooded the remainder being mainly heath habitat with colonising Betula and Quercus trees. Small areas of wet grassland and marsh vegetation also present along with a stream and small lake. Woodland has been managed in past. Light grazing occurs. Surrounding areas are used for afforestation and rough grazing.

Site Code	Site Name	Quality of Site	Other Site Characteristics
002244	Ardrahan Grassland SAC	The site is important as it contains excellent examples of the Annex I habitat Alpine heath along with frequent areas of Juniper scrub formations throughout the site. Small examples of the Annex I priority habitat of Limestone Pavement are found. The site also supports an interesting example of a shallow marl lake. Although small it is of high scientific interest due to its relatively natural state good quality Chara communities and given the rarity of this habitat type in the locality.	Geologically the overdominant rock formations are of flat carboniferous limestone. Southwest of Brackloon Lough the land rises slightly to form low calcareous hills with a frequent cover of Juniper heath. Much of the site is dominated by species rich limestone grassland merging northwards into a rich mosaic of alpine heath limestone pavement calcareous grassland and scrub. Some areas of reclamation occur at the northern and north western edges of the site.
002263	Kerry Head Shoal SAC	The Kerry Head reef has extremely high conservation value. It contains a rich and diverse flora and fauna that is characterized by rare erect and encrusting sponges. Several species occur in associations that are unique in Ireland and the axinellid sponge community is considered to be Ireland's best example (pers. comm. B.Picton). Two sponge species were not recorded anywhere else in Ireland by BioMar (Tetilla cranium and Quasillina brevis). The populations of nine other rare and notable species (Tetilla zetlandica Thymosia guernei Axinella damicornis Axinella flustra Spongionella pulchella Hexadella racovitzae Terebratulina retusa Diazona violacea and Aldisa zetlandica) represent a very high proportion of the total populations in the national territory. Four other species have conservation importance (Gymnangium montagui Eunicella verrucosa Isozoanthus sulcatus and Carpomitra costata).	The Kerry Head Shoal is a deep (20 - 52 m) limestone reef running in a north-east / south-west direction. The reef is situated on the west coast of Ireland to the north of Tralee Bay and to the west of Kerry Head. It is exposed to the full force of swells from the Atlantic. The infralittoral and circalittoral reef communities of the Kerry Head Shoal are extremely exposed to wave action and subject to weak tidal streams. The circalittoral reef topography ranges from big relatively flat terraces cut by gullies to ridged bedrock and angular boulders.
002264	Kilkee Reefs SAC	Kilkee has good examples of exposed reef communities that contain species worthy of conservation. The purple sea urchin Paracentrotus lividus is abundant in shallow pools on the shore. In the infralittoral zone there are scarce species of sponge sea fan and nudibranch. The erect and encrusting sponges anthozoans and nudibranchs in the circalittoral are of particular interest. Species richness can be high: 86 species were recorded by BioMar in the upper infralittoral reef north-east of Ilaunonearaun and 76 species were recorded in the lower eulittoral reef at Duggerna Rock.	This site is situated on the south-west coast of Co. Clare. It stretches for approximately 12 km from Ballard Bay to Castle Point. It is exposed to the full force of Atlantic swells from the west and slopes steeply. A small shallow bay Moore Bay offers some shelter from wave action. Bedrock is Carboniferous Millstone Grit and Flagstone. A few small islands and islets are included the largest being Bishop's Island.

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		While poorly documented the site has examples of submerged marine caves that are presumed of good quality and largely undisturbed. Exposed littoral sediment communities and sheltered infralittoral reef communities add habitat diversity to the area.	
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.
002294	Cahermore Turlough SAC	Cahermore turlough is considered to be of regional importance. While the vegetation is not particularly diverse the amount and quality of the native scrub and developing woodland within the turlough zone is of note. The overall quality is reduced by close grazing and agricultural improvements in parts. When flooded it can support locally important concentrations of wintering waterfowl including Cygnus cygnus.	The site is situated in the limestone lowlands of South Galway. It occupies a shallow basin that is mostly covered by glacial drift. There are rock outcrops in the northern part and a low mound of limestone pavement in the eastern sector. The turlough is a dry type and there is no standing water in summer apart from a few ponds dug for cattle. Some collapse features occur in the drift in the southern part including a swallow hole. The turlough appears to flood largely from the southern side.
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

Site Code	Site Name	Quality of Site	Other Site Characteristics
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.
002317	Cregg House Stables Crusheen SAC	Cregg House stables support an internationally important summer roost of lesser horseshoe bats. The site is in reasonably good condition and provides relatively undisturbed roosting conditions for the bats.	This site consists of an old stone-built stable block that is still used for horses. It is situated approximately 10 km south of Gort. The surrounding landscape consists of improved pasture with hedgerow boundaries. There are several small lakes with fringing woodland in the vicinity of the roost thus providing some foraging habitat for the bats.
004005	Cliffs of Moher SPA	The site is one of most important seabird colonies in Ireland with the largest populations of Rissa tridactyla and Alca torda in the country and the second largest population of Fulmarus glacialis. The population of Alca torda is of international Importance. The site also had nationally important populations of Uria aalge and Fratercula arctica. Small numbers of several other seabird species also breed including Larus argentatus L. marinus and Corvus corax. The cliffs have breeding Falco peregrinus and Pyrrhocorax pyrrhocorax both species being listed on Annex I of the E.U. Birds Directive. Habitat in the site is of excellent quality. Part of the site is a designated Refuge for Fauna.	This cliff site extends a distance of some 8 km along the north Clare coast from Cancregga Point to just south of Lough Point. The cliffs which rise to 203 m in height are formed of horizontal beds of coal measure sandstones and shales. Cleavage in the rock is so good that the term flagstone has been applied. The line of cliffs shows faulting and slumping to good effect but these are difficult to observe from the cliff top. The sheer cliffs are largely unvegetated though some wide slopes are vegetated with a Festuca sward. The site includes some cliff-top vegetation (a typical maritime sward) and the adjacent sea area to a distance of 500 m from the cliff base.
004031	Inner Galway Bay SPA	Galway Bay is one of the most important ornithological sites in the western region. It supports internationally important wintering populations of Gavia immer and Branta bernicla hrota and regularly occurring nationally important populations of an additional 16 species most notably Mergus serrator (6.7% of national total) Charadrius hiaticula (3.3% of total) Anas clypeata (2.9% of total) and Limosa lapponica (2.5% of total). It supports	Galway Bay SPA is a very large marine-dominated site situated on the west coast of Ireland. The inner bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poulnaclough Aughinish and Kinvarra Bays) add texture to the patterns of water movement and sediment deposition which lends variety to the marine habitats and communities. The terraced Carboniferous (Viséan) limestone

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		the largest and the most regular population of Gavia arctica in the country. The bay is an important wintering site for gulls and is of national significance for at least Larus canus. Breeding birds of note are Phalacrocorax carbo Sterna sandvicensis and Sterna hirundo. The site provides both feeding and roost sites for most of the species though some birds commute to areas outside of the site. The birds of Galway Bay have been monitored annually since 1980/81. The site has one of the largest populations of Phoca vitulina in the country.	platform of the Burren sweeps down to the shore and into the sublittoral. The long shoreline is noted for its diversity with complex mixtures of bedrock shore shingle beach sandy beach and fringing salt marshes. Intertidal sand and mud flats occur around much of the shoreline with the largest areas being found on the sheltered eastern coast between Oranmore Bay and Kinvarra Bay. Seagrass beds lie off Finavarra Point. A number of small islands composed of glacial deposits are included such as Deer Island along with some rocky islets.
004041	Ballyallia Lough SPA	The site supports a good diversity of wintering waterfowl including swans dabbling duck diving duck and some waders. Habitat quality is good and the site provides both feeding and roost sites for the birds. Seven of the species have populations of national importance: Anas penelope Anas strepera Anas crecca Anus platyrhynchos Anas clypeata Fulica atra and Limosa limosa. The Anas clypeata population is the largest in the country (9.6% of all-Ireland total) while that of Anas strepera is also very notable (10.3% of all-Ireland total). There is a regularly occurring flock of Cygnus cygnus. Some of the birds especially Limosa limosa commute to the nearby River Fergus-River Shannon estuary. The site is a Wildfowl Sanctuary.	Ballyallia Lake is a relatively small naturally eutrophic lake set in Carboniferous limestone. The site is located on the River Fergus a little north of Ennis town. It is a shallow system but can rise substantially during winter floods. A low-lying flood plain of wet grassland and rough pasture grazing to the west is included within the site. Substantial areas of improved grassland used by feeding waterfowl are also included. Intensively farmed land occurs to the north and south. The lake is used for a range of recreational activities.
004056	Lough Cutra SPA	Lough Cutra is a long-established breeding site for Phalacrocorax carbo. The colony is of regional importance though has been of national importance in the past. The lake supports wintering waterfowl including Cygnus cygnus though numbers are relatively low.	Lough Cutra is a large oligo-mesotrophic lake lying on limestone but with much sediment washed down from the sandstone hills to the east (Slieve Aughty Mountains). The Owendalulleegh River is the main inflowing river. The shoreline is often stony or sandy though in places it is peat fringed. Marginal wetland vegetation includes well-developed reed beds in sheltered bays as well as localised patches of swamp and fen vegetation. Woodland occurs around much of the lake shore. Much of this is planted though wet woodland with native species is also represented. The lake has a number of islands some of which are wooded. The surrounding land is mostly agricultural mainly pasture grassland. Lough Cutra Castle which supports hibernating Rhinolophus hipposideros is adjacent to the site.

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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.
004114	Illaunonearaun SPA	The site is of importance as a haunt for the wintering population of Branta leucopsis which frequents the west Clare coastline (Mutton Island being the main site). Numbers vary though at times exceed the threshold for national importance. This is near the southern limit of the range of Branta leucopsis in Ireland. The site is also of note as a breeding site for seabirds with populations of Phalacrocorax carbo Larus fuscus and Larus marinus.	Illaunonearaun is a small island located approximately 300 m off the west Clare coast. It is a low-lying island surrounded by low cliffs and a rocky shore. Several islets occur off the north-west shore. The sea surrounding the island to a distance of 200 m where seabirds forage bathe and socialise is included in the site. The island is dominated by a maritime grassland sward.
004181	Connemara Bog Complex SPA	The Connemara Bog Complex SPA supports nationally important populations of four species. Of particular note are the populations of Pluvialis apricaria and Falco columbarius which represent 18% and 1.8-3.6% of the all-Ireland totals respectively.	The Connemara Bog Complex SPA is a large site encompassing the majority of the south Connemara lowlands Co. Galway. The site is bounded to the north by the Galway-Clifden road and stretches as far east as the Moycullen-Spiddal road. The site contains a wide range of habitats - extensive tracts of western blanket bog form the core interest but there are also areas of heath woodland lakes rivers and streams. The Connemara Bog Complex SPA is underlain predominantly by various Galway granites with small areas along the northern boundary of Lakes Marble schist and gneiss.

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000016	Ballycullinan Lake SAC	The site supports a typical example of Cladium mariscus fen in a calcareous lake system. The fen occurs in association with Phragmites swamp. The structure and functionality appear good. The occurrence of limestone pavement within the site adds to its conservation value. The lake is of interest for the alga Cladophora sauteri which forms spherical aggregations that sometimes become buoyant and float. The scarce Mercurialis perennis occurs in scrub woodland. The site supports wintering Gallinago gallinago and small numbers of wildfowl.	Ballycullinan Lough is a small and shallow calcareous lake with marl deposits. Also included in the site are three smaller lakes to the north-east - Cragmoher Drumcavan and Shanvally Loughs. Swamp vegetation surrounds almost the entire margin of Ballycullinan Lough and extends out into the shallows. The three smaller lakes have little open water being dominated by swamp. The swamp community merges with freshwater marsh and wet grassland in places. Limestone pavement and scrub woodland with patches of calcareous grassland occupy the northern part of the site.
000032	Dromore Woods and Loughs SAC	The great value of this area lies in the mosaic of vegetation types: scrub limestone pavement lakes lake shore communities reed beds and grassland. Between them there is a great wealth of plants and a variety of habitats for animals. 9% of the site consists of the Annex I priority habitat limestone pavement with 13% cover for naturally eutrophic lakes also Annex I. Eutrophic tall herb vegetation is also represented. Lutra lutra (Annex II) and Martes martes (Red Data Book) are both recorded within this site. The population of Rhinolophus hipposideros is of International Importance and one of the largest breeding sites in the country. Wintering waterfowl populations are of local importance.	Dromore Lough and surrounding woodland is situated on the southern edge of the Clare limestone. It is a continuation of the Burren landscape although at a lower elevation. The natural vegetation is Corylus avellana and Fraxinus excelsior wood but this has been interplanted with exotic conifers. There are small areas of limestone pavement and a series of naturally eutrophic lakes with extensive marginal grasslands fen and scrub. An outbuilding at Dromore House provides a summer breeding site for Rhinolophus hipposideros. The site plays host to an important invertebrate fauna and provides ideal habitat for Martes martes and Meles meles both Red Data Book species.
000261	Derrycrag Wood Nature Reserve SAC	The site is of importance since it contains fragments of an ancient oak woodland which until the 1940s was one of the most extensive in Ireland. The relatively fertile soils support the Coryletosum subassociation of the Blechno-Quercetum a community type which is uncommon in Ireland. The site acts as a refuge for flora and fauna which are otherwise scarce in the locality. The banks of the Woodford River support the Irish Red Data Book species Frangula alnus as well as a number of relatively rare herbs. The site provides an excellent opportunity to re-create an oak woodland.	This site is dominated by a coniferous plantation which contains fragments of old oak woodland. The original ground flora persist beneath the conifers especially where mature Pinus sylvestris occurs. The Woodford River traverses the north-eastern part of the site. The underlying rock is Old Red Sandstone overlain in places by drift. The soils vary from thin acidic podzols to deeper gleyed brown earths.

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000297	Lough Corrib SAC	The site is of immense importance for the occurrence of scarce and specialised habitats as well as animal and plant species. Lough Corrib is the second largest oligotrophic lake in the country and is a superb example of a hardwater system. The site holds 14 Annex I habitats 6 of these are priority Annex I habitats of the EU Habitats Directive 5 Red Data Book plant species also Drepanocladus vernicosus and Lutra lutra and a rare chironomid Corynorera ambigua good populations of Margaritifera margaritifera Austropotamobius pallipes Petromyzon marinus and Lampetra planeri. The site also supports an important population of Salmo salar. Important for wintering and breeding birds with Anser albifrons flavirostris Sterna hirundo and Sterna paradisea.	Lough Corrib is situated directly north of Galway city and is the second largest lake in Ireland. The lake supports extensive Chara beds many wooded islands and large areas of swamp and fen in the shallow south-east section which lies on limestone. The north-west part is deeper wider and more oligotrophic. Shore is mainly karst bog and small areas of callow. The surroundings are farmland and holiday-home areas. Most of the main rivers and their tributaries which flow into the lake are included within the site including the Abbert Clare Cong Cornamona Dalgan Drimeen Grange Owenwee Owenriff and Sinking rivers. The River Corrib flows from the southern point of the lough into the sea at Galway city.
001275	Inisheer Island SAC	The island is important for the presence of the priority habitats limestone pavement orchid rich calcareous grasslands and lagoons along with three further annexed habitats. The rocky grasslands play host to the protected species Viola hirta. Traditional agricultural in the form of rye cultivation is still carried on and provides habitat for a number of rare and threatened arable weeds including Lolium temulentum and Bromus racemosus. Three pairs of Pyrrhocorax pyrrhocorax breed on the island.	Inisheer is the smallest of the three Aran Islands situated approximately 10km off the west coast of County Clare. The island is a geological extension of the karstic carboniferous region of the Burren. Upper carboniferous limestone strata interleaved with layers of shale and clay form these exposed islands which rise to a maximum of 64m. The land surface is divided up by a network of fissures varying from fine to deep clefts. The soil cover is thin with pockets of rendzina between the bare limestone.
001913	Sonnagh Bog SAC	One of the last remaining intact areas of highland blanket bog in the Slieve Aughty Mountains containing good examples of deep blanket bog peat without Molinia caerulea. A small lake and flush communities associated with streams add diversity to the site. Lagopus lagopus have been reported from this site and Gallinago gallinago is regular in winter.	A relatively isolated example of highland blanket bog situated on a plateau (300m) in the sandstone Slieve Aughty Mountains. Site contains a small lake and the headstreams of the Boleyneendorrish River.

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002034	Connemara Bog Complex SAC	The site is of exceptional scientific value as it provides (with the exception of the Glenamoy Bog complex) the best example of a relatively unmodified lowland blanket bog habitat in Ireland. The primary interest of this site lies in the blanket bog and in the associated habitats of quaking bog flushes Rhynchosporion vegetation dystrophic bog pools and fens. Excellent examples of lagoons occur with highly diverse assemblages of flora and fauna. The site also includes areas of reef. There are four Annex II species of flora and fauna including Salmo salar Najas flexilis and Lutra lutra and a total of 11 legally protected plant species. The site is of particular conservation importance for Salmo salar with excellent grilse and spring salmon rivers and lakes and extensive spawning habitat. The site has ornithological importance with five Annex I Bird Directive species. The nesting Falco columbarius and Pluvialis apricaria within the site constitute a high proportion of the national totals for the species. Additional areas are included in the site under EU LIFE funded restoration projects.	A vast area of lowland Atlantic blanket bog providing one of the best examples of this habitat type in Ireland. The majority of land in the area is still quite intact and is of immense botanical and zoological interest. The underlying rock in the area is predominantly granite with areas of gneiss and gabbro to the west of the site. There are numerous oligotrophic lakes throughout the site with the Roundstone area providing an excellent example of a lake-studded blanket bog environment. Dystrophic pools are also encountered throughout the site in association with other habitats including alkaline fens quaking bog transition mires deciduous woodland wet and dry heaths scrub semi-improved grassland wet grassland and river habitats.
002126	Pollagoona Bog SAC	This site is important as it represents a good example of a relatively intact saddle blanket bog. Variation is displayed in micro-topography structure and in species composition.	This is a small intact saddle blanket bog. Adjacent areas of formerly afforested peatland are included in the site as part of an EU LIFE funded restoration project.
002157	Newgrove House SAC	As > 150 Lesser Horseshoe Bats (Rhinolophus hipposideros) hibernate at this site it is a site of international importance.	The bats roost in a section of a cellar beneath the former Newgrove House. They gain access through a hole in the ground and fly along a stone passageway to roost in a dome shaped cellar. Site includes the surrounding pasture fields hedgerows and some areas of mixed woodland. The hedgegrows and woodland margins are ideal for foraging and commuting bats. A former lake has been totally reclaimed.
002246	Ballycullinan Old Domestic Building SAC	This site supports a maternity colony of Rhinolophus hipposideros of international importance. Numbers have gradually increased in recent years with 115 individual bats in 1999. The roost lies within the core area of the distribution of the species in Ireland.	This site is situated to the east of Ballycullinan Lough in County Clare. It includes some derelict dwellings one of which is used by Rhinolophus hipposideros in summer. The area surrounding the buildings is poor pasture with overgrown hedgerows and scrub. This provides suitable foraging habitat for the bats and some of it is included in the site.

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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.
002293	Carrowbaun Newhall and Ballylee Turloughs SAC	Along with Coole and Peterswell turloughs this turlough complex forms the third major area where streams descending from the Slieve Aughty Mountains disappear into the underlying limestone and as such is an essential element in the drainage system in this internationally important karstic region. Despite the vegetation in Newhall and Carrowbaun having been modified by drainage works and heavy grazing there are places where a good zonation of communities occur including stands of conservation value. The Ballylee component is much improved for agriculture and the main interest is at the sink area at the western end. When in flood the site is of local to regional importance for wintering waterfowl including Cygnus cygnus and Cygnus columbianus and also has nesting Gallinago gallinago. Small breeding colonies of Rhinolophus hipposideros and Plecotus auritus occur in Ballylee Castle.	This site is situated in the limestone lowlands of south Galway. It consists of three separate turlough-type marshes in Carrowbaun East and Newhall and the channel between Ballylee Castle and Pollanoween in which the Streamstown and Ballylee Rivers sink. The systems are linked at times of high flood. The lowest part of the Carrowbaun site is at the northern end where topographical ridges enclose two arms of wetland. Newhall lies in a broad peaty depression with gravel deposits at the southern end. At high water levels there is flooding northwards into Carrowbaun West. The Ballylee River is confined between a limestone ridge and drift deposits on the south-eastern side and has formed a channel through whose floor the water sinks. In flood it travels further south-west and disappears in a tangled rocky area covered in scrub. Small amounts of groundwater feed the Carrowbaun and Newhall wetlands and there is very little noticeable flow in summer. Swallow holes occur at Pollaleen which introduces water from nearby Lough Coy as well as at Carrowbaun and at two places in the south-west end. Adjacent areas of wet grassland and improved grassland are included in the site for water quality reasons. Much of the site is grazed.

Site Code	Site Name	Quality of Site	Other Site Characteristics
004042	Lough Corrib SPA	The site is of international importance for wintering Aythya ferina but also qualifies for international importance because it regularly supports well in excess of 20000 waterfowl. It is one of the top five sites in the country for wintering waterfowl. Of particular importance is that it is the most important site in the country for Aythya ferina Aythya fuligula and Fulica atra supporting 21% 46% and 13% of the respective national totals. It also has nationally important populations of wintering Cygnus olor Anas strepera Anas clypeata Pluvialis apricaria and Vanellus vanellus. The lake is a traditional site for Anser albifrons flavirostris. Small numbers of Cygnus cygnus winter. Lough Corrib is a traditional breeding site for gulls and terns. There are nationally important colonies of Sterna hirundo and Sterna paradisaea as well as Larus ridibundus and Larus canus. Considerable higher numbers of gulls bred in the 1970s and 1980s. Whilst only colonised in the 1970s/80s by nesting Melanitta nigra Lough Corrib now supports approximately half of the national population of this rare duck which is a Red Data Book species. The population has been stable since the mid 1990s. Lough Corrib supports a range of species listed on Annex II of the E.U. Habitats Directive including Lutra lutra Salmo salar and Najas flexilis.	Lough Corrib is the largest lake in the Republic of Ireland. The lake can be divided into two parts: a relatively shallow basin underlain by Carboniferous limestone in the south and a larger deeper basin underlain by more acidic granite schists shales and sandstones to the north. The main inflowing rivers are the Black Clare Dooghta Cregg Owenriff and the channel from Lough Mask. The main outflowing river is the Corrib which reaches the sea at Galway City. Lough Corrib is classified as a mesotrophic system and overall water quality is considered to be satisfactory. The shallow lime-rich waters of the southern basin of the lake support one of the most extensive beds of charophytes (Chara spp.) in Ireland which occur mixed with submerged pondweeds (Potamogeton spp.). Large areas of reedswamp vegetation dominated by varying mixtures of Phragmites australis and Scirpus lacustris occur around the margins of the lake. Reedswamp usually grades into species-rich marsh vegetation. Of particular note are the extensive beds of Cladium mariscus that have developed over the marly peat deposits in sheltered bays. The lake has numerous islands from rocky islets to larger islands with grassland or woodland. The surrounding lands are mostly pastoral farmland to the south and east and bog and heath to the west and north. Lough Corrib is an internationally renowned salmonid fishery.
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.	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.

Site Code	Site Name	Quality of Site	Other Site Characteristics
		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.	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. 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.
004096	Middle Shannon Callows SPA	This site is the largest area of semi-natural floodplain grassland in Ireland and has very many features of a natural ecosystem. Along with its main tributaries the River Suck and River Brosna it represents one of the most important wetland systems in the country. It is of International Importance for wintering waterfowl as numbers regularly exceed the 20000 threshold (mean of 34985 for the 5 winters 1994/94-1998/99). Of particular note is the presence of an Internationally Important population of Cygnus cygnus. A further five species have populations of national importance: Cygnus olor Anas penelope Pluvialis apricaria Vanellus vanellus and Limosa limosa. There is a well documented spring passage of Limosa limosa along the river valley. The Shannon callows are also of high importance for breeding birds. In particular it has the largest concentration of Crex crex in Ireland. Since 1991 a conservation programme involving annual monitoring of population size practical habitat management and publicity has been in operation. Coturnix coturnix a very rare species in Ireland also breeds in the grasslands. Several wader species notably Vanellus vanellus Gallinago gallinago and Tringa totanus have important breeding populations though these have declined substantially since the 1980s. The scarce breeding species Anas clypeata nests in small numbers each year. The callows is one of the very few sites in Ireland where Limosa limosa has bred. The habitats also support a range of ground nesting passerine species notably Locustella naevia and Alauda arvensis. In autumn and winter Circus cyaneus is a regular visitor.	The site follows the River Shannon from Athlone just below Lough Ree to Portumna just above Lough Derg a distance of over 50 km. It includes much of the flood plain of the river varying in width from approximately 0.5 km to up to 1.5 km in places. A weir at Meelick divides the flooding regime. The main habitat present is humid grassland improved to varying extents that is seasonally flooded. The less improved areas are species-rich. The grassland is used mainly for pasture but some is used for hay-making. The river channel is fringed by swamp and marsh vegetation. There is an extensive system of drainage channels many of which support a diverse flora. The callows often border raised bogs some of which are still intact.

Site Code	Site Name	Quality of Site	Other Site Characteristics
004107	Coole-Garryland SPA	This site is of international importance for Cygnus cygnus which use the site for both feeding and roosting purposes though the flock also visits other feeding areas outside of the site. It was formerly of importance for Cygnus columbarius bewickii but birds have not been present in recent winters reflecting a decline that has occurred throughout the country. A good diversity of other wintering birds occurs notably Anas penelope which is close to the threshold for national importance. Also present are Anas crecca Anas clypeata Aythya ferina Vanellus vanellus and Numenius arquata. Coole Lough has particular significance for wintering waterfowl as during prolonged dry spells it is one of the few sites in the catchment which retains open water. The ecology of the site has been studied in detail.	The Coole-Garryland SPA is situated in a low-lying karstic limestone area west of Gort. It comprises a series of turloughs which are fed by springs and a partly submerged river surrounded by woodland pasture and limestone heath. Coole Lough is the largest and most permanent of the turloughs retaining some water throughout the year. Water levels vary greatly depending on rainfall and this has consequences on the numbers of birds present. During prolonged dry spells higher numbers of some species are present as birds from other sites in the catchment are attracted to the permanent waters of Coole Lough. Excessive flood conditions reduce the potential feeding areas though birds still roost on the lakes.
000014	Ballyallia Lake SAC	This small shallow lake is a typical example of a natural eutrophic lake. The diversity of habitat around the lake is low and some of the marginal wetland habitats have been damaged by agricultural improvements. The quality of the water may also have deteriorated due to agricultural intensification in the area in recent years. The site is a very important bird site with a high diversity and some important populations of wintering waterfowl. Of note is the internationally important population of Shoveler and the nationally important population of Gadwall. Breeding birds include Great Crested Grebe and Coot.	Ballylallia Lake is situated on the River Fergus about 4km north of Ennis. It is a shallow (max. depth 7.8 m) eutrophic calcareous lake with relatively clear water. The bottom is muddy sand rocky in the shallows. Low-lying areas of rough pasture occur to the west and south with higher sloping ground to the north and east. Lough Girroga situated less than 1km to the south forms part of the site.
000020	Black Head-Poulsallagh Complex SAC	This site has an excellent diversity of typical Burren habitats with many rare plant species. The site is of particular value for the fine examples of high level Arctostaphylos uva-ursi heaths and for the presence of the only river found in the high Burren. This river the Caher is noted for its partly intermittent nature and the degree of development of tufa deposits. A superb and extensive example of a highly exposed vegetated shingle bank occurs at Poulsallagh with substrate ranging from large limestone boulders to pebbles.	The Black Head-Poulsallagh complex encompasses a complete range of rocky Burren habitats from coastal glacially planed limestone pavements to high level heaths. The limestone pavement includes smooth blocky and shattered types. Erratics of Galway granite occur especially around Black Head which is the main glaciated area of the Burren. A mosaic of typical Burren habitats are found including calcareous grasslands heaths and scrub. The Caher River is a shallow limestone spring-fed system with important tufa deposits of considerable thickness located to the west of the site.

Site Code	Site Name	Quality of Site	Other Site Characteristics
		The littoral reef communities are important biogeographical variations of intertidal rocky shores extremely exposed to wave action and the area includes the best examples of this shore type in the country. The caves are the best known extensive network of caves that are connected to the sea in Ireland. While little is known of their biological diversity it is considered that they exist in a very natural state. The occurrence of Petalophyllum ralfsii adds to the interest of the site as does the presence of Pyrrhocorax pyrrhocorax.	The shores are gently sloping stepped limestone pavements over most of the site but at Black Head the shore is narrow and very steeply stepped. There are numerous shallow rockpools on the shore. Black Head gives some protection to the shores immediately to the east but the west facing shores are extremely exposed to wave action. The shore has scattered cobbles and a number of pools are affected by these cobbles acting as mills in the pools causing severe scouring. In the most extreme cases there is a very impoverished flora and fauna present.
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.
000057	Moyree River System SAC	The Moyree river system is the best example of a karstic river after the Caher River in Ireland. The river exhibits an excellent example of nutrient gradients associated with silt deposition. Several good examples of active stream caves occur. 57% of the site consists of the Annex I priority habitat limestone pavement and its associated calcareous grasslands and scrub. A fine example of alkaline fen occurs within the flood plain of the river. A colony of the Annex II species Rhinolophus hipposideros occurs within the site. Salmo trutta was recorded from the river and Clossiana euphrosyne a butterfly species generally confined to a few localities in the west of Ireland was noted on site. The secluded nature of the river valley is ideal for sheltering wildfowl and other fauna which include Lutra lutra and Martes martes a Red Data Book species.	The Moyree River is a slow moving river which follows a partially subterranean course through a lowland karst region on the fringe of the eastern Burren. It is sheltered on the east by gentle sloping limestone outcrops and ash woodland and to the west by low undulating drumlin hills. Where the stream first emerges a small relatively eutrophic area of flood plain grassland is developed on alluvial soils. Further downstream the soils are fen peat and marl and fen vegetation dominated by Schoenus nigricans occurs.

Site Code	Site Name	Quality of Site	Other Site Characteristics
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.
000216	River Shannon Callows SAC	This site is the largest area of semi-natural floodplain grassland in Ireland and Britain and has very many features of a natural ecosystem. It has been placed among the most 'natural' floodplains in western Europe. It is subject to regular and prolonged annual winter flooding. Wooded alluvial islands which flood regularly occur at one location. A number of Red Data Book and scarce plant species occur on the site the scarce species including Leucojum aestivum Sium latifolium Botrychium lunaria and Lemna gibba. In addition, the site contains a very wide variety of native plant species. A small area of limestone pavement at Clorhane is of particular importance as it is the only example of this habitat in the region. Along with its tributary the Little Brosna (designated separately) this is one of the great waterfowl sites in Ireland with huge numbers of a wide range of species occurring in winter with a mean peak of 34985 waterbirds recorded from 1995/96 to 1999/00. This is the third highest for an inland site in Ireland. The highest is the Little Brosna which is an extension to the Middle Shannon Callows. Only three estuarine sites are higher. In 1996/97 one species was of International Importance (Whooper Swan) and six species were of National Importance. A small flock of Anser albifrons flavirostris regularly use a few locations on the site and these are part of the Internationally Important flocks of both the Little Brosna and the River Suck. It is one of very few significant inland sites in Britain or Ireland for Calidris alpina.	The River Shannon is the largest river in Ireland and its central route drains a large percentage of the whole country. It has proved too powerful to be tamed by drainage schemes in the past and this central section is still free to flood the surrounding lowlands in winter. It is a well-used agricultural resource of low intensity during the summer. This floodplain functions as a semi-natural meadow/marsh habitat (used for grazing or hay-making). There is an extensive system of surface drains. The site is linear running for about 50 km at an average width of about 0.75 km (but reaching 1.5 km in several places). For about half its length it borders raised bogs most of which are in the process of large-scale peat harvesting. Esker ridges lie adjacent to the callows in some places. There are areas of both relict and active levees. A weir at Meelick divides the flooding regime. Ecological diversity is caused and maintained by multiple ownership variation in the flooding regime due to the topography of the callows hundreds of kilometres of drainage ditches differences in the amount of peat and alluvium in the soils and by the extensive nature of the site. The main habitat on the site is humid grassland managed for hay and pasture and these areas have the same management regime as the lowland hay meadows and Molinia meadows.

Site Code	Site Name	Quality of Site	Other Site Characteristics
		It is the top site in the country for Cygnus olor and close to that for Cygnus cygnus Vanellus vanellus and Pluvialis apricaria. The E.U. Birds Directive Annex I species Circus cyaneus regularly uses the site for hunting in autumn and winter. Perhaps even more important are its nesting Crex crex Coturnix coturnix and breeding waders. In 1987 1204 pairs of breeding waders were recorded (including adjacent parts of the Shannon) mainly Vanellus vanellus Gallinago gallinago Numenius arquata and Tringa totanus. Crex crex has one of its last strongholds here with 70 and 66 calling birds present in 1998 and 1999 respectively. The Shannon Callows is one of the few areas in Ireland where Coturnix coturnix breeds. Numbers vary between years but up to 14 males have been heard. There are high populations of ground-nesting passerines such as Alauda arvensis Anthus pratensis Locustella naevia and Emberiza schoeniclus on the site. The River Shannon Callows is a breeding site for two Red Data Book waterbird species: Limosa limosa islandica and Anas clypeata. The Red Data Book species Anas acuta has also bred on the site though its current status is unknown. The E.U. Birds Directive Annex I species Falco columbarius bred on the site in 1996. Large rivers flowing unfettered through lowland floodplains are now rare anywhere in Europe. This river and its associated habitats are of the highest conservation importance.	
000242	Castletaylor Complex SAC	Site contains an excellent example of an extreme oligotrophic turlough and good examples of Dryas and Juniperus heaths calcareous grassland and some limestone pavement. The transition from the wetland to the surrounding habitats is particularly well shown. A range of scarce plants occur including Frangula alnus a Red Data species as well as typical Burren species such as Gentiana verna. The site also has breeding Vanellus vanellus. The diversity of specialised habitats all in good quality in a relatively small area makes this site of particular importance.	Situated c.4km south-east of Kilcolgan and set on undulating limestone topography this site comprises a range of habitats in a relatively small area. The western half of the site is dominated by Caranavoodaun turlough but also has good examples of heaths calcareous grassland and limestone pavement. The eastern half is dominated by dry broad-leaved woodland and scrub. The surrounding lands are mostly of low to moderate intensity pasture with some afforestation immediately to the south. The turlough has no significant wintering bird populations because of the nutrient-poor conditions.

Site Code	Site Name	Quality of Site	Other Site Characteristics
000268	Galway Bay Complex SAC	The site has very important and good quality examples of large shallow inlets and bays intertidal mud and sandflats and reefs. The area has the country's only recorded example of the littoral community characterized by Fucus serratus with sponges ascidians and red seaweeds on tide-swept lower eulittoral mixed substrata. Sublittorally the area has Ireland's only reported piddock bed an extensive maerl bed of Phymatolithon calcareum an oyster bed and seagrass beds. A host of rare marine organisms occur including the sea urchin Paracentrotus lividus the sponge Mycale contarenii the red algae Phyllophora sicula and Rhodymenia delicatula. Lagoons are particularly well represented and varied in type size and salinity. Of especial importance are the rare karstic rock lagoons of which the site holds all but one of the examples known from the mainland of Ireland. Good quality salt marshes of both Atlantic and Mediterranean types are well represented and occur along with perennial vegetation of stony banks. A very good though limited example of calcareous grassland rich in orchids occurs and there are examples of alkaline fen and Juniperus communis scrub of moderate quality. Two Red Data Book stoneworts occur Chara canescens and Lamprothamnium papulosum and also two Red Data Book vascular plants - Crambe maritima and Hyoscyamus niger. The site has one of the largest populations of Phoca vitulina in the country and provides optimum habitat for Lutra lutra. Galway Bay is a very important ornithological site with an internationally important wintering population of Branta bernicla hrota and regular nationally important populations of a further 16 species including Gavia immer Gavia arctica Pluvialis apricaria and Limosa lapponica. Breeding birds of note are Phalacrocorax carbo Sterna sandvicensis and Sterna hirundo.	The Galway Bay Complex is a very large marine-dominated site situated on the west coast of Ireland. The inner part of the south bay is protected from exposure to Atlantic swells by the Aran Islands and Black Head. Subsidiary bays and inlets (e.g. Poulnaclough Aughinish and Kinvara Bays) add texture to the patterns of water movement and sediment deposition which lends variety to the marine habitats and communities. The terraced Carboniferous (Visean) limestone platform of the Burren sweeps down to the shore and into the sublittoral. West of Galway city the bedrock geology is granite. The long shoreline is noted for its diversity with complex mixtures of bedrock shore shingle beach sandy beach and fringing salt marshes. Other habitats which occur in small amounts include lagoon fen turlough dry grassland wet grassland and deciduous woodland.

Site Code	Site Name	Quality of Site	Other Site Characteristics
000308	Loughatorick South Bog SAC	The largest of three highland blanket bogs in the Slieve Aughty mountains with vegetation intermediate between lowland and mountain blanket bog a relatively rare habitat type in Ireland. Remarkably intact blanket bog with a range of altitudinal topographic and vegetation variation and including the most western station for Andromeda polifolia on an upland blanket bog. Site used by Lagopus lagopus and Gallinago gallinago.	A highland blanket bog encompassing the summits of Scalp (317m) and Bohatch Mountain (379m) at the southern end of the Old Red Sandstone Slieve Aughty mountain range. The site incorporates the headstreams of the Coos Conra and Bow river catchments and includes a range of upland habitats i.e. blanket bog heath rock outcrop fens flushes and Molinia grassland.
000318	Peterswell Turlough SAC	The Blackrock section of the site is the deepest turlough known and one of the few large ones that is river-fed. The vegetation is in very good condition and while not very diverse includes two types not widely found. These are Rhamnus woodland and late-exposed mud with Limosella. The Bullaunagh section is a broader valley which floods in winter. Between the two turloughs the Limepark area has notable turlough woodland along the narrow river gorge with a large area of Ash woodland on limestone pavement at the west. Winter bird numbers are thought to be significant. The internationally important population of Whooper Swans at the Lough Coy catchment use the turloughs in this site. Three Red Data Book plant species are found in the site.	Peterswell (Blackrock and Bullaunagh) Turlough lies in limestone in an elongated depression close to the edge of the Slieve Aughty mountains. It is fed largely by surface flow from the Kilchreest River but has no corresponding outflow. The Blackrock section is a deep basin dry in summer with woodland and sloping rocks on the S.E. side. The fluctuation of water level is extreme and in some years the waterbody is 18m deep.
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.
001021	Carrowmore Point to Spanish Point and Islands SAC	The site holds a very high number of littoral reef communities. Some have extremely high species richness e.g., 85 species in the sublittoral fringe and 80 species in the lower eulittoral south of Cloghaunichy Point. There are uncommon species in the intertidal (Paracentrotus lividus and Bifurcaria bifurcata). Sublittorally the area is important for its deep exposed reef communities that are characterized by unusual and delicate erect sponges the fragile anthozoan Eunicella verrucosa the rare sponge Tetilla zetlandica and the anthozoan Parazoanthus axinellae. Lough Donnell is a good example of a moderately large oligohaline percolation lagoon. The floral and faunal communities are not particularly rich but include an important brackish element with five lagoonal specialists and it is the most northerly station of one relatively rare species (Notonecta viridis). The site has significant examples of vegetated shingle and stony banks all of which are very exposed. The site has a good example of petrifying springs with tufa formations with several species of bryophyte typical of the Cratoneurion. The springs occur along seepage zones in clay sea cliffs. A population of Branta leucopsis of international importance winters on Mutton Island and Hydrobates pelagicus may still breed. Phalacrocorax carbo breeds on Mattle Island. The site holds nationally important wintering populations of Charadrius hiaticula Calidris maritima Calidris alba Calidris alpina and Arenaria interpres. Cygnus cygnus and Pluvialis apricaria occur in small numbers.	This site stretches for over 10 km of the west Clare coast. It consists mostly of marine waters which are exposed to the full force of Atlantic swells from the west. Tidal streams are weak to moderate. Bedrock is composed of Carboniferous Lower Devonian Shales and Sandstones Carboniferous Slate Series and Calciferous Sandstone Series. Several islands are included, the largest of which is Mutton Island. Mutton Island is uninhabited and is dominated by a maritime grassy sward. The mainland shoreline is mostly rocky or stony though there are several sandy beaches and areas of intertidal flats. Lough Donnell is a shallow sedimentary lagoon with a large cobble barrier.

Site Code	Site Name	Quality of Site	Other Site Characteristics
001912	Glendree Bog SAC	One of only three intact blanket bog sites known in the Slieve Aughty Mountains of value as an example of a scarce transitional highland type containing ombrotrophic zones with no Molinia caerulea. Considerable diversity within the site with Schoenus nigricans flush vegetation and good examples of oligotrophic upland lakes the largest of which Lough Ea is a traditional roosting site for Anser albifrons flavirostris.	A highland blanket bog underlain by Old Red Sandstone in the Slieve Aughty Mountains. Site contains three upland oligotrophic lakes the largest of which is Lough Ea and includes the headstream of the Glendree River. Minerotrophic flush and heath vegetation also occur. Site is surrounded on three sides by commercial forestry plantation.
001926	East Burren Complex SAC	This large site is of immense importance for the diversity and quality of Annex I habitats (12 in total) five of which are priority. Of particular note are the limestone pavement calcareous grasslands (orchid rich) and heaths and hard water lakes and associated Cladium fens. Taxus baccata occurs as a component of woodland on limestone pavement in some areas. The site also includes an area of alluvial woodland. The site has an internationally important population of Rhinolophus hipposideros a major colony of Euphydryas aurinia and Lutra lutra. Several Red Data Book plant species occur. The Red Data Book fish species Salvelinus alpinus has been recorded from L. Inchiquin. Four Annex I Bird Directive species occur.	This site encompasses the largest expanse of limestone pavement in the country - this ranges from typical flat open paving with sparse vegetation at high levels such as at Mullagh More to often scrub covered broken paving at the lower altitudes. Associated with the limestone pavement are well-developed calcareous heaths and grasslands. In the limestone areas surface drainage is largely absent. The south and south-east of the site is dominated by a series of wetlands which run from Corofin to Kilmacduagh. These range from open lakes to dense swamp vegetation. For water quality reasons areas of improved pasture are included in site.
002117	Lough Coy SAC	The site is an excellent example of a eutrophic turlough exposed to a large volume of water over the winter season and a considerable fluctuation in level. Vegetation zonation is well developed and a number of rare plants occur. The site is in a natural condition and there is little outside influence on the habitat apart from grazing and a little gravel removal. The site is one of several turloughs in the area used by wintering waterfowl including Cygnus cygnus and an inland flock of Calidris alpina. Usage varies according to water levels.	Lough Coy occupies an oval basin in the limestone just west of the Gort-Loughrea road. It is a turlough with a permanent central lake which reduces in area during the summer. The immediate catchment of Lough Coy is very small and the turlough would seem to be fed almost solely by water from Peterswell turlough to the north and its feeding river. A main swallowhole occurs in the north-western corner of the basin. At times of low water extensive mudflats are exposed at Lough Coy on which a distinctive annual vegetation develops. The sides of the basin are closely grazed though there are numerous rocks and a little scrub. At high water levels some water escapes southwards where it joins a small permanent flow from Ballynabucky. The southern sector has further swallow holes and the area is characterised by small stands of wetland vegetation often on peat over marl. Areas of improved grassland are included in the site for hydrological reasons.

Site Code	Site Name	Quality of Site	Other Site Characteristics
002245	Old Farm Buildings Ballymacrogan SAC	This site is a maternity colony for Rhinolophus hipposideros. Approximately 80 individual bats were counted on emergence in June 2000 although numbers have exceeded 100 (threshold for international importance) in the past. It lies within the core area of the distribution of the species in Ireland. Long-term conservation prospects are excellent.	Site comprises a series of stone outbuildings. Lesser horseshoe bats (Rhinolophus hipposideros) were originally found in an outbuilding which was in a derelict condition. An adjacent building was subsequently restored by a conservation organisation (Vincent Wildlife Trust) to provide better roosting conditions for the bats. Since completion the bats have successfully moved into the restored building. The bats roost in the attic/loft space. The habitat surrounding the site provides poor quality foraging for the bats but there are numerous commuting routes (along hedgerows and stone walls) to feeding areas elsewhere.
002247	Toonagh Estate SAC	This site is a maternity colony for Rhinolophus hipposideros. Over 90 individual bats were counted in August 1999. It lies within the core area of the distribution of the species in Ireland.	This site is situated c.5 km north-west of Ennis in Co. Clare. A stable provides a nursery roost for lesser horseshoe bats (Rhinolophus hipposideros). The bats utilise the roof space of the building. Conditions have been made more suitable by measures to temporarily darken the roost during summer (carried out by Dúchas). Surrounding habitat is estate parkland with improved pasture and mature trees. This provides good foraging habitat for the bats and is included in the site.
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.
002343	Tullaher Lough and Bog SAC	The main ecological interest of this site is provided by a small area of uncut raised bog. This area though small is one of the most westerly examples of raised bog habitat in Ireland. Although the raised bog has been subject to cutting the surface is wet and has a healthy Sphagnum cover. The area of active bog is surrounded by degraded raised bog.	Tullaher Lough and Bog is a large diverse site which is dominated by cutover bog. The site is situated 3 km south-west of Doonbeg village Co. Clare and is underlain by grey siltstone and sandstone. While the main habitat within the site is cutover bog the main ecological interest is provided by areas of raised bog lake and fen habitats.

Site Code	Site Name	Quality of Site	Other Site Characteristics
		Rhynchosporion vegetation is also represented but is largely restricted to the areas of wet bog. Two small lakes occur and these support a well-developed aquatic flora which includes nationally rare species such as Eriocaulon aquaticum and Elatine hexandra. Substantial areas of fen and transition mire occur close to the lakes and these are of good quality. The site is the focal point for a small but well-established population of Anser albifrons flavirostris. This population is of particular note as it is now the most south-westerly flock in the country. Cygnus cygnus and several other waterfowl species occur in small numbers.	The western margins of the site comprise a mosaic of wet and semi-improved or improved agricultural grassland which are used by feeding geese.
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.
004119	Loop Head SPA	The site supports a good diversity of breeding seabirds. Rissa tridactyla and Uria aalge have populations of national importance while there are locally important populations of Fulmarus glacialis and Alca torda. Pyrrhocorax pyrrhocorax (several pairs) breed within the site and use the maritime heath above the cliffs for feeding. It is a traditional site for Falco peregrinus.	Loop Head is situated at the most westerly point of Co. Clare. The site includes the shoreline and cliffs some adjoining maritime grassland and heath and the adjacent marine area to a distance of 500 m from the shore (where seabirds feed bathe and socialise). The vertical cliffs are impressive extending for up to 5 km and rising to approximately 60 m and highly exposed to the open seas of the Atlantic ocean. They are composed of Carboniferous grits and flags. A number of islets and stacks occur notably Gull Island and Dermot and Grania's Rock. A lighthouse is situated on the headland.

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004142	Cregganna Marsh SPA	Cregganna Marsh is of importance as it is the principal alternative feeding site for the nationally important population of Anser albifrons flavirostris that is based at nearby Rahasane turlough. Numbers using Cregganna Marsh vary between winters but in most winters the qualifying threshold for national importance is exceeded.	Cregganna Marsh is situated just south of Oranmore and close to Galway City. The site comprises a basin with marsh and wet grassland habitat in the lower areas. It is fed by a local calcareous spring. At times of high rain the area floods. The fields above the low-lying ground are mainly improved grassland and are included within the site to lessen disturbance to the feeding geese. Small areas of scrub dry grassland and exposed limestone rock are also present.
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.
004182	Mid-Clare Coast SPA	An important population of Branta leucopsis which at times exceeds the threshold for national importance winters on Mutton Island. Site is of particular importance for wader species of rocky and sandy shores with nationally important wintering populations of Charadrius hiaticula Calidris maritima Calidris alba Calidris alpina and Arenaria interpres. The Calidris maritima and Arenaria interpres populations are regularly the largest in the country and comprise 11.5% and 4.3% of the respective all-Ireland totals. Gavia immer is regular in winter. Mutton and Mattle Islands support a range of breeding seabirds with a nationally important population of Phalacrocorax carbo as well as populations of Phalacrocorax aristotelis Larus canus Larus fuscus Larus argentatus Larus marinus and Cepphus grylle.	The site stretches for approximately 14 km of the west coast of Clare from Spanish Point to Rinnammryal just west of Doonbeg. The mainland shoreline which is highly exposed to the force of the Atlantic is mostly rocky and stony with well-developed littoral reed communities. There are several sandy beaches such as at white strand as well as areas of intertidal flats. The site has significant examples of vegetated shingle and stony banks all of which are very exposed. Several islands are included the largest of which is Mutton Island a medium sized uninhabited island situated approximately 1 km from Lurga Point. Mutton Island is dominated by a grassy sward with some low cliffs at the west side. Mattle Island is a small island situated approximately 2 km south of the larger Mutton Island. It is a low-lying island rising to only 12 m in the central area.

Site Code	Site Name	Quality of Site	Other Site Characteristics
			A group of littoral reefs occur to the north of Mutton Island notably Carrickaneelwar and Seal Rock. A large marine area which has very good examples of sub-tidal reefs is included in the site.
004220	Corofin Wetlands SPA	Corofin Wetlands SPA is of high ornithological importance for supporting nationally important numbers of Cygnus cygnus and Limosa limosa supporting 1.3% and 2.4% of the all-Ireland population respectively. Corofin Wetlands supports a further 3 species of national importance; Tachybaptus ruficollis (3.3% of all-Ireland population) Anas penelope (3.2%) and Anas crecca (1.8%). It is also notable for its wintering Anas strepera population.	Corofin Wetlands SPA incorporates the lakes Inchiquin Lough Atedaun and Lough Cullaun and associated calcareous wetlands. The site extends south-westwards to include the floodplain of the River Fergus to the west of Corofin Co. Clare. The site contains some of the best areas of oligotrophic limestone wetlands to be found in the Burren.
000019	Ballyogan Lough SAC	The site supports a typical example of Cladium mariscus fen in a calcareous lake system. The fen occurs in association with Phragmites swamp and Schoenus fen and is adjacent to acidic cutover bog. The structure and functionality of the Cladium fen appears good. The occurrence of a substantial area of limestone pavement within the site adds to its conservation value.	The site is located in the eastern part of the Burren complex. It lies within a wedge shaped basin with low hills on both sides. Ballyogan Lough is a small and shallow calcareous lake with marl deposits. Also included in site is Moyree Lough and several other very small loughs. The lakes are fringed by swamp and fen vegetation which merges with an extensive area of cutover bog in the north-eastern sector of the site. The cutover bog varies in wetness and in places supports fen communities. An extensive area of limestone pavement and scrub woodland with patches of calcareous grassland occupies the south-western part of the site.
000036	Inagh River Estuary SAC	The salt marshes at this site particularly Atlantic salt meadows and Salicornia sand flats are well represented and of good quality. The area formerly had extensive sand dunes but the greater part of these are now developed as golf courses and excluded from site. Areas of Ammophila dunes and fixed dunes remain but these are very limited in extent and of only moderate quality. The site formerly had wintering Anser albifrons flavirostris and still has regionally important numbers of a range of waterfowl species including Pluvialis apricaria.	The site comprises the estuaries of the River Inagh and the Dealagh River. The tidal sections of these rivers merge at O'Brien's Bridge and then flow through a narrow channel between two sand dune spits and into Liscannor Bay. The most frequent habitat at the site is wet grassland which occurs behind the salt marshes and along the river channels. Some swamp vegetation occurs along the river channels and there are areas of mixed woodland and wet woodland just below Ennistimon. On the seaward side of the dune spits there are sandy beaches and a boulder beach. The intertidal sand flats to the low tide mark are included.

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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.
000231	Barroughter Bog SAC	Barroughter bog is a small raised bog site which contains good examples of the priority Annex I habitat active raised bog and the non-priority habitats degraded raised bog and depressions on peat substrates (Rhynchosporion). The bog lies along the western shores of Lough Derg and as a result there are some good vegetation transitions between the lake margins and high bog evident. The locally rare plant species Sphagnum pulchrum and Rhynchospora fusca have been recorded from wet pools and lawns on the high bog.	This site is underlain by dark grey muddy fossiliferous carboniferous limestones with a low permeability. The subsoils are dominated by limestone till with calcareous shell marl and pure sand in places. Overall, the limestone till has a low permeability. The bog formed in a floodplain of the adjacent lake and river and lies in a regional ground water discharge area. Upwelling is seen to the NE.
000248	Cloonmoylan Bog SAC	Cloonmoylan Bog is a large raised bog site which supports very good examples of the Annex I habitats active raised bog woodland degraded raised bog and Rhynchosporion vegetation. The site contains one of the largest remaining areas of uncut raised bog surface in east Galway. Of particular ecological note is the presence of large flushed area in the northern half of the site which contains areas of bog woodland. A number of relatively rare plant species i.e., Frangula alnus and Sphagnum pulchrum have been recorded growing within the site recently and these add to the ecological interest.	This site is predominantly underlain by dark grey muddy fossiliferous carboniferous limestones interbedded with calcareous shales. The Eastern section is underlain by walsortian carboniferous limestone. Both have low permeabilities. A SW/NE fault runs under the site. This is co-incident with a flush. The subsoils are predominately clay rich tills with low permeability. The bog lies in a basin separated from Lough Derg by a bedrock ridge.

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000299	Lough Cutra SAC	The site supports an internationally important winter roost for Rhinolophus hipposideros. Maximum number recorded has been 93 individuals. Good quality foraging habitat surround the roost sites. The bats' summer roosting sites have not yet been established. Lough Cutra is a long-established breeding site for Phalacrocorax carbo. The colony is of regional importance though has been of national importance in the past. Lake supports wintering waterfowl including Cygnus cygnus though numbers are relatively low.	Lough Cutra is a large oligo-mesotrophic lake lying on limestone but with much sediment washed down from the sandstone hills to the east (Slieve Aughty Mountains). The Owendalulleegh River is the main inflowing river. The shoreline is often stony or sandy though in places it is peat fringed. Marginal wetland vegetation includes well-developed reed beds in sheltered bays as well as localised patches of swamp and fen vegetation. Woodland occurs around much of the lake shore. Much of this is planted though wet woodland with native species is also represented. The lake has a number of islands some of which are wooded. Lough Cutra Castle is included in the site as it supports hibernating bats. The winter bat roosts comprise a passageway underneath the Castle and a wine cellar. Parkland in the vicinity of the castle is included in the site for the benefit of the bats.
000319	Pollnaknockaun Wood Nature Reserve SAC	The site is important since it contains fragments of an ancient woodland which until recently was one of the most extensive in Ireland; the relatively fertile soils support the Coryletosum subassociation of the Blechno-Queretum a relatively rare community type in Ireland. The woodland acts as a refuge for flora and fauna which are otherwise scarce in the locality. Furthermore, the site provides an excellent opportunity to re-create an area of oak woodland.	This site is dominated by a coniferous plantation much of which has been recently clear-felled. Fragments of old oak woodland occur in blocks and bands particularly in the south-western part of the site (which is a nature reserve). Small areas of wet and mixed woodland also occur. The underlying rock is Old Red Sandstone. The soils vary from thin acidic podzols to deeper gleyed brown-earths.
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.
001285	Kiltiernan Turlough SAC	The basin is split between two landowners and the level of land use is very different. The eastern (non-intensive) end is of fine quality and its vegetation is typical of a fairly dry turlough with considerable species diversity.	Kiltiernan is a simple linear depression running SW from the main Galway-Limerick road. There are small cliffs and rock outcrops with bushes at its eastern end but to the west these are replaced with smoother fields of pasture.

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		The Red Data Book plant species Viola persicifolia and Frangula alnus are found here in this section. The western end is part of an intensive dairy farm and there is little interest in the vegetation.	The basin slopes towards the NE so at this end there are a few semi-permanent pools. Conversely the SW end has other depressions that only flood in very high groundwater levels.
001321	Termon Lough SAC	Termon North is a eutrophic system unusual in that it retains a substantial area of water until late in the year. This means that the aquatic plant community has full reign to develop. The late exposure of water also means that the annuals such as Alopercurus aequalis can survive. Termon South or Termon Lough is without drainage. It is a good example of a turlough at the wet end of the range with one of the largest stands of reedswamp. Although rare species have not been found the relatively rare oligotrophic vegetation on marl does occur. Rosemeade Turlough is located north of Termon North. This turlough seems to be more typical than either of the Termon sites. The vegetation is uniform and flooded for a relatively short period in winter. The turlough is fringed on the western side by scrub including Rhamnus cartharticus. The rare Eurycercus glacialis is frequent with marsh snails and many invertebrate carnivores. Crustacean species diversity is relatively high also.	Termon North is an unusual turlough as it retains a substantial area of water until late in the year sometimes not drying out completely. This means that the aquatic community has full reign to develop resulting in a dense vegetation of Potamogeton and other species. The late exposure of the bed also means that annual terrestrial species are a feature in most years. Termon Lough is a wet turlough that seems to have become wetter since it was mapped in the 1890s. It lies in flattish morainic countryside on the Galway/Clare border. The main area is now a dense reedswamp underlain by marl deposits which show at the edges. Drier vegetation is of small extent though a small area of limestone pavement rises in the N.E. corner.
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.
002010	Old Domestic Building (Keevagh) SAC	As >100 Lesser Horseshoe Bats (Rhinolophus hipposideros) use this site as a summer breeding site it is a site of international importance. It is also important because it is situated along the eastern limit of the species' distribution in Ireland.	This site consists of a large two-storey derelict dwelling situated near Quin village County Clare. It is used by >100 Lesser Horseshoe Bats as a summer breeding site. The bats roost in the roof space. The surrounding mature trees and hedgerows are suitable foraging habitats for the bats.

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002180	Gortacarnaun Wood SAC	This oak woodland is classified as Blechno-Quercetum petraeae var. coryletosum. It is a good example of the type and of significant size though it has been managed for timber extraction for a long period and there are few old trees. It has good canopy and understorey structure but ground layer is restricted due to shading and grazing. Regeneration is good. Similar sized woods are scarce.	Site is situated in the foothills of the Slieve Aughty Mountains approximately 2 km east of Lough Cutra. Northern boundary is marked by the Owendalulleegh River. While site is dominated by deciduous woodland there is an area of open heath habitat with colonising Betula trees and also an area of wetland vegetation with wet grassland flush and fen vegetation. A stream and some drains run through the site. Main landuses within site are woodland management and grazing. Surrounding areas are used for afforestation and rough grazing.
002241	Lough Derg North-East Shore SAC	This site supports a wide range of habitats including Alkaline fens Juniper scrub formations limestone pavement Yew woodlands alluvial woodlands and Cladium fen. It also supports the only known population in the country for the Irish Red Data Book species Inula salicina. Other scarce plant species found here include Sorbus aria and Rhamnus catharticus. The endangered fish species Coregonus autumnalis has its European stronghold in Lough Derg. The open water areas of the lake itself are important for wintering wildfowl. Goat island holds a breeding colony of Sterna hirundo. A subflock of Anser albifrons flavirostris uses the callow lands around Slevoir Bay in Winter. A good population of Cygnus olor occurs.	This site incorporates part of the water body of Lough Derg and includes most of the northern lake shore and approximately one-third of the northeast shoreline. Lough Derg itself is the lowest order lake on the River Shannon and is one of the largest freshwater bodies in Ireland. Most of the lake overlies Carboniferous Limestone which outcrops along the shores but some old Red Sandstone occurs on the eastern side. The site is of high scenic value and is a well-known angling and tourism area.
002250	Carrowmore Dunes SAC	The site displays an excellent example of intertidal reefs. The bedrock shore has high species diversity (96 species in the low shore and 121 species in the sublittoral frings) good zonation and with a wide variety of habitats due to the structure of the shore. The variety of habitats and the zonation are typical for this type of shore and therefore is a good example of this shore type. Rare species recorded are the shrimp Alpheus macrocheles and the red algae Phyllopohra sicula and Pterosiphonia pennata. The brown algae Bifurcaria bifurcata which has a limited distribution in Ireland also occurs at the site. The site is also important as it supports a good example of the priority Annex I habitat fixed dunes with herbaceous vegetation.	The site is located on the west coast and comprises Doughmore Bay and part of the more sheltered Doonbeg Bay. Geologically the site is of Upper Carboniferous sandstone and shale. Doughmore Bay is a wide gently sloping bay with jagged bedrock to the north and south. The bedrock has boulders cobbles pebbles gravel and coarse sand in the large fissures and crevices that run horizontally along the shore. White Strand a fine sandy beach with extensive intertidal sand flats occurs between the bedrock shores. An extensive area of shallow marine water is included. The terrestrial component of the site comprises the remnant of a formerly more intact dune system and includes examples of embryonic shifting marram and fixed dunes. Soils are pure coarse grained sand at the beach which increase in organic content moving inland.

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		Also present are the Annex I habitats embryonic shifting dunes and Marram dunes. The site is used in some cases intermittently for feeding and roosting by a variety of bird species. The site supports a population of the EU Habitats Directive Annex II mollusc species Vertigo angustior.	
002295	Ballinduff Turlough SAC	Ballinduff Turlough offers an excellent range of vegetation types characteristic of turloughs with many communities well developed and little grazed. The prominence of Littorella uniflora in several different vegetation types the development of Rhamnus woodland and the unusual swallow hole and aquatic vegetation are the main features. The site supports part of an internationally important population of Cygnus cygnus and also at times Cygnus columbianus bewickii. A rare invertebrate species Eurycercus glacialis (Cladocera Chydoridae) occurs.	The site is situated in the limestone lowlands of South Galway. It occupies a narrow basin with rock outcrops in the northern half and drift to the south. The turlough is late-draining and a linear pool persists into summer in some years and re-floods easily. The site is probably controlled by a complex area of swallow holes and subsidence below the houses at Coolfin (to the west). The ground along the southern edge is very soft with temporary springs. During floods the site drains overland towards Coole Lough to which it is hydrologically connected. There is a transition in nutrient status apparent from NE-SW. For water quality reasons areas of improved grassland are included in the site.
002314	Old Domestic Buildings Rylane SAC	This site supports an internationally important summer roost of Rhinolophus hipposideros. The cottage is in good condition and provides stable and undisturbed summer roosting conditions for the bats. It is one of a number of maternity roosts known from within a 5km radius and is located in an area with a large population of lesser horseshoe bats. Foraging areas and winter hibernation sites have not yet been established although it may be linked to a known hibernaculum situated approximately 3km away (Newgrove House).	The site consists of a disused stone cottage situated approximately 5 km north-west of Tulla in Co. Clare. The site is surrounded by agricultural land.
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).	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.

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		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.	
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 is 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.
004168	Slieve Aughty Mountains SPA	The site supports over 12% of the all Ireland population of Circus cyaneus and is among the top five sites in the country for this species. It provides excellent habitat for both nesting and foraging. The site also supports a breeding population Falco columbarius. The population size is not well known but is likely to exceed five pairs. Lagopus lagopus is found on many of the unplanted areas of bog and heath - this is a species that has declined in Ireland and is now Red-listed	The Slieve Aughty Mountains SPA is a very large site that extends southwards from just south of Loughrea County Galway to Scarriff in County Clare. The peaks are not notably high or indeed pronounced; this site rises to a maximum of 400 m at Maghera west of Lough Graney. The site includes many small- and medium-sized lakes notable Lough Graney and Lough Atorick; several important rivers rise in the site including the Owendalulleegh and Graney. Lough Derg occurs immediately to the south-east. The Slieve Aughty mountains are predominantly comprised of Old Red Sandstone but outliers of Lower Palaeozoic rocks provide occasional outcrops capping the hills. The site consists of a variety of upland habitats though approximately half is afforested. The coniferous forests include first and second rotation plantations with both pre-thicket and post-thicket stands present.

Site Code	Site Name	Quality of Site	Other Site Characteristics
			Substantial areas of clear-fell are also present at any one time. Almost one-third of the site is unplanted blanket bog and heath with both wet and dry heath present. Well-developed blanket bog occurs at several locations notable Sonnagh Loughatorick South and Glendree. The remainder of the site is mostly rough grassland that is used for hill farming.
004189	Kerry Head SPA	The site supports an nationally important population of breeding Pyrrhocorax pyrrhocorax. The site is of particular note for the density of breeding pairs found. It also supports a nationally important population of Fulmarus glacialis.	Kerry Head SPA is situated on the south side of the mouth of the River Shannon in north Co. Kerry. It encompasses the sea cliffs from just west of Ballyheigue around the end of Kerry Head to the west and north-eastward as far as Kilmore. The site includes the sea cliffs and the land adjacent to the cliff edge (inland for 300 m). The high water mark forms the seaward boundary. Most of the site is underlain by Devonian siltstone sandstones and mudstones; a small section of the site has rocks of Carboniferous age.

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
000014	Ballyallia Lake SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150]	H01, X, A02.01, A08, K04.01, A10.01	Pollution to surface waters (limnic & terrestrial, marine & brackish), No threats or pressures, Agricultural intensification, Fertilisation, Competition (flora), Removal of hedges and copses or scrub
000016	Ballycullinan Lake SAC	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	A04, E01.03, A10.01, J02, A08, J02.01	Grazing, Dispersed habitation, Removal of hedges and copses or scrub, Human induced changes in hydraulic conditions, Fertilisation, Landfill, land reclamation and drying out, general
000019	Ballyogan Lough SAC	Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	C01, K02.01, H02.07, H02.06, H01.08, A04.03, A04.02, H01.05, J01.01, I02, A04.01, A05.02, A10	Mining and quarrying, Species composition change (succession), Diffuse groundwater pollution due to non-sewered population, Diffuse groundwater pollution due to agricultural and forestry activities, Diffuse pollution to surface waters due to household sewage and waste waters, Abandonment of pastoral systems lack of grazing, Non intensive grazing, Diffuse pollution to surface waters due to agricultural and forestry activities, Burning down, Problematic native species, Intensive grazing, Stock feeding, Restructuring agricultural land holding
000020	Black Head-Poulsallagh Complex SAC	Juniperus communis formations on heaths or calcareous grasslands [5130], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Petalwort (Petalophyllum ralfsii) [1395], Petrifying springs with tufa formation (Cratoneurion) [7220], Perennial vegetation of stony banks [1220], Alpine and Boreal heaths [4060], Limestone pavements [8240], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Water courses of plain to montane levels with the	G01, D01.01, A10.01, K02.02, G05.01, C01.03.02, K04.01, A05.02, G02.08, A04.02.01, K02.01, E04.01, B07, A04.03, A08, C01.07	Outdoor sports and leisure activities, recreational activities, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Accumulation of organic material, Trampling, overuse, Mechanical removal of peat, Competition (flora), Stock feeding, Camping and caravans, Non intensive cattle grazing, Species composition change (succession), Agricultural structures, buildings in the landscape, Forestry activities not referred to above, Abandonment of pastoral systems lack of grazing, Fertilisation, Mining and extraction activities not referred to above

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Reefs [1170], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130]		
000030	Danes Hole, Poulnalecka SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	D05, B06, A10.01, B01.01, M02.03	Improved access to site, Grazing in forests or woodland, Removal of hedges and copses or scrub, Forest planting on open ground (native trees), Decline or extinction of species
000032	Dromore Woods and Loughs SAC	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Limestone pavements [8240], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Otter (Lutra lutra) [1355], Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430]	D01.02, A04, A10, E03.03, E01.03, B, G01.02, J02, B01.01, A10.02, F02.03, G01.03, F03.02.04, A10.01, D01, G05, E03.01, G03, A08, F03.01, E06.02	Roads, motorways, Grazing, Restructuring agricultural land holding, Disposal of inert materials, Dispersed habitation, Sylviculture, forestry, Walking, horseriding and non-motorised vehicles, Human induced changes in hydraulic conditions, Forest planting on open ground (native trees), Removal of stone walls and embankments, Leisure fishing, Motorised vehicles, Predator control, Removal of hedges and copses or scrub, Roads, paths and railroads, Other human intrusions and disturbances , Disposal of household or recreational facility waste, Interpretative centres, Fertilisation, Hunting, Reconstruction, renovation of buildings
000036	Inagh River Estuary SAC	Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Salicornia and other annuals colonising mud and sand [1310], Mediterranean salt meadows (Juncetalia maritimi) [1410], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120]	J02.12.01, J02.01.02, J02.11.02, A02.01, J02.05.02, M01.05, I01	Sea defense or coast protection works, tidal barrages, Reclamation of land from sea, estuary or marsh, Other siltation rate changes, Agricultural intensification, Modifying structures of inland water courses, Water flow changes (limnic, tidal and oceanic), Invasive non-native species
000037	Pouladatig Cave SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	A04	Grazing
000051	Lough Gash Turlough SAC	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	A10.01, A04, H01.08, E01, F03.01, D01.02, A08	Removal of hedges and copses or scrub, Grazing, Diffuse pollution to surface waters due to household sewage and waste waters, Urbanised areas, human habitation, Hunting, Roads, motorways, Fertilisation

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000054	Moneen Mountain SAC	Limestone pavements [8240], Turloughs [3180], Juniperus communis formations on heaths or calcareous grasslands [5130], Alpine and Boreal heaths [4060], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Petrifying springs with tufa formation (Cratoneurion) [7220], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Marsh Fritillary (Euphydryas aurinia) [1065]	E04.01, K02.02, A04.02.01, A10.01, K02.01, D01.01, A05.02, K04.01, A04.03, A08	Agricultural structures, buildings in the landscape, Accumulation of organic material, Non intensive cattle grazing, Removal of hedges and copses or scrub, Species composition change (succession), Paths, tracks, cycling tracks, Stock feeding, Competition (flora), Abandonment of pastoral systems lack of grazing, Fertilisation
000057	Moyree River System SAC	Limestone pavements [8240], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Caves not open to the public [8310], Alkaline fens [7230], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Otter (Lutra lutra) [1355]	G01.02, H, A08, J02, J01, E04.01, J02.01, E03.01, E06.02, A10, A05.02, A04, A10.02, A04.02.01, A10.01, B01, E01, F03.01, I02	Walking, horseriding and non-motorised vehicles, Pollution, Fertilisation, Human induced changes in hydraulic conditions, Fire and fire suppression, Agricultural structures, buildings in the landscape, Landfill, land reclamation and drying out, general, Disposal of household or recreational facility waste, Reconstruction, renovation of buildings, Restructuring agricultural land holding, Stock feeding, Grazing, Removal of stone walls and embankments, Non intensive cattle grazing, Removal of hedges and copses or scrub, Forest planting on open ground, Urbanised areas, human habitation, Hunting, Problematic native species
000064	Poulnagordon Cave (Quin) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	A10.01, A04, E01, G05.04, G01.04.03	Removal of hedges and copses or scrub, Grazing, Urbanised areas, human habitation, Vandalism, Recreational cave visits
000174	Curraghchase Woods SAC	Desmoulin`s whorl snail (Vertigo moulinsiana) [1016], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Taxus baccata woods of the British Isles [91J0]	B02, J02.02.01, G05.04, B02.01.01, G01	Forest and Plantation management & use, Dredging or removal of limnic sediments, Vandalism, Forest replanting (native trees), Outdoor sports and leisure activities, recreational activities

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000212	Inishmaan Island SAC	Machairs * in Ireland [21A0], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Limestone pavements [8240], Reefs [1170], Embryonic shifting dunes [2110], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], European dry heaths [4030], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	A08, C01.01, A04.02.01, E05, J02.12.01, J02.01.02, D01.01, F04, J01.01, G01, E04.01, A04.03, A10.01, I02	Fertilisation, Sand and gravel extraction , Non intensive cattle grazing, Storage of materials, Sea defense or coast protection works, tidal barrages, Reclamation of land from sea, estuary or marsh, Paths, tracks, cycling tracks, Taking or Removal of terrestrial plants, general, Burning down, Outdoor sports and leisure activities, recreational activities, Agricultural structures, buildings in the landscape, Abandonment of pastoral systems lack of grazing, Removal of hedges and copses or scrub, Problematic native species
000216	River Shannon Callows SAC	Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Alkaline fens [7230], Limestone pavements [8240], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Otter (Lutra lutra) [1355]	G05.01, J02.04.01, A04.02.05, B02.02, J02.01, D01.01, A10.01, G01, F03.01, A03.03, J02.05, A04.03, C01.03.02, A07, K03.04, J02.05.02, A03, A04.01, B06, J02.11, A08	Trampling, overuse, Flooding, Non intensive mixed animal grazing, Forestry clearance, Landfill, land reclamation and drying out, general, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Outdoor sports and leisure activities, recreational activities, Hunting, Abandonment or lack of mowing , Modification of hydrographic functioning, general, Abandonment of pastoral systems lack of grazing, Mechanical removal of peat, Use of biocides, hormones and chemicals, Predation, Modifying structures of inland water courses, Mowing or cutting of grassland, Intensive grazing, Grazing in forests or woodland, Siltation rate changes, dumping, depositing of dredged deposits, Fertilisation
000231	Barroughter Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	D05, E03.03, E03.01, B01, C01.03.02, J02.15, J02.10, X, J01.01	Improved access to site, Disposal of inert materials, Disposal of household or recreational facility waste, Forest planting on open ground, Mechanical removal of peat, Other human induced changes in hydraulic conditions, Management of aquatic and bank vegetation for drainage purposes, No threats or pressures, Burning down
000238	Caherglassaun Turlough SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Rivers with muddy banks with Chenopodion	A04.01.01, A05.02, A10.01,	Intensive cattle grazing, Stock feeding, Removal of hedges and copses or scrub, Grazing, Disposal of household or

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	A04, E03.01, J02.04.01, H01.08, H02.06, A08	recreational facility waste, Flooding, Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities, Fertilisation
000242	Castletaylor Complex SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Alpine and Boreal heaths [4060], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240], Turloughs [3180]	X, A10.01, H02.06, J02.01, B01, A04.01.01, H01.08	No threats or pressures, Removal of hedges and copses or scrub, Diffuse groundwater pollution due to agricultural and forestry activities, Landfill, land reclamation and drying out, general, Forest planting on open ground, Intensive cattle grazing, Diffuse pollution to surface waters due to household sewage and waste waters
000248	Cloonmoylan Bog SAC	Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110], Bog woodland [91D0], Degraded raised bogs still capable of natural regeneration [7120]	A01, A04.01.01, A08, B01, B02.01.02, A04, D05, B02.02, A04.02.04, J01, A03, C01.03.02	Cultivation, Intensive cattle grazing, Fertilisation, Forest planting on open ground, Forest replanting (non native trees), Grazing, Improved access to site, Forestry clearance, Non intensive goat grazing, Fire and fire suppression, Mowing or cutting of grassland, Mechanical removal of peat
000252	Coole-Garryland Complex SAC	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240], Turloughs [3180], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Taxus baccata woods of the British Isles [91J0], Juniperus communis formations on heaths or calcareous grasslands [5130]	E06.02, B02.02, I01, A04.01.01, J02.01.03, H01.08, J02.01, D01.02, H02.06, E03.03, J02.05, A10.01, A08, A04.01.02, J01.01, C03.03, C01.01, E03.01, J02.04.01	Reconstruction, renovation of buildings, Forestry clearance, Invasive non-native species, Intensive cattle grazing, Infilling of ditches, dykes, ponds, pools, marshes or pits, Diffuse pollution to surface waters due to household sewage and waste waters, Landfill, land reclamation and drying out, general, Roads, motorways, Diffuse groundwater pollution due to agricultural and forestry activities, Disposal of inert materials, Modification of hydrographic functioning, general, Removal of hedges and copses or scrub, Fertilisation, Intensive sheep grazing, Burning down, Wind energy production, Sand and gravel extraction , Disposal of household or recreational facility waste, Flooding
000261	Derrycrag Wood Nature Reserve SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	D01.01, J01, B06, I01, B, A04.02	Paths, tracks, cycling tracks, Fire and fire suppression, Grazing in forests or woodland, Invasive non-native species, Sylviculture, forestry, Non intensive grazing

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000268	Galway Bay Complex SAC	Otter (Lutra lutra) [1355], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Mudflats and sandflats not covered by seawater at low tide [1140], Alkaline fens [7230], Mediterranean salt meadows (Juncetalia maritimi) [1410], Large shallow inlets and bays [1160], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Turloughs [3180], Harbour seal (Phoca vitulina) [1365], Perennial vegetation of stony banks [1220], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Juniperus communis formations on heaths or calcareous grasslands [5130], Salicornia and other annuals colonising mud and sand [1310], Coastal lagoons [1150], Limestone pavements [8240], Reefs [1170]	D01.01, J02.05.01, D03.01.04, G02.01, I01, F02.03.01, C01.01.02, J02.01.02, H01.05, F01, D03.01.01, A04.02.01, J02.02.02, H01.08, J02.12.01, A02.01, G01.01.02, E03.03, C01.01, D03, A04.02.02, D02.02, F06	Paths, tracks, cycling tracks, Modification of water flow (tidal & marine currents), Industrial ports, Golf course, Invasive non-native species, Bait digging or collection, Removal of beach materials, Reclamation of land from sea, estuary or marsh, Diffuse pollution to surface waters due to agricultural and forestry activities, Marine and Freshwater Aquaculture, Slipways, Non intensive cattle grazing, Estuarine and coastal dredging, Diffuse pollution to surface waters due to household sewage and waste waters, Sea defense or coast protection works, tidal barrages, Agricultural intensification, Non-motorized nautical sports, Disposal of inert materials, Sand and gravel extraction , Shipping lanes, ports, marine constructions, Non intensive sheep grazing, Pipe lines, Hunting, fishing or collecting activities not referred to above
000286	Kiltartan Cave (Coole) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	G01.04.03, J02.04.01, E06.02, D01.02	Recreational cave visits , Flooding, Reconstruction, renovation of buildings, Roads, motorways
000297	Lough Corrib SAC	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Active raised bogs [7110], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Limestone pavements [8240], Degraded raised bogs still capable of natural regeneration [7120], Alkaline fens [7230], Petrifying springs with tufa formation (Cratoneurion) [7220], Depressions on peat substrates of the	C01.03.02, D01, A04.03, E03.01, A10.01, A08, C01.01, H01.08, B01, A02.01, A04, E01.03, D03.01.02, E01.01, I01, J02.01.03, G05, J02.15	Mechanical removal of peat, Roads, paths and railroads, Abandonment of pastoral systems lack of grazing, Disposal of household or recreational facility waste, Removal of hedges and copses or scrub, Fertilisation, Sand and gravel extraction , Diffuse pollution to surface waters due to household sewage and waste waters, Forest planting on open ground, Agricultural intensification, Grazing, Dispersed habitation, Piers or tourist harbours or recreational piers, Continuous urbanisation, Invasive non-native species, Infilling of ditches, dykes, ponds, pools, marshes or pits, Other human intrusions and disturbances , Other human induced changes in hydraulic conditions

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		Rhynchosporion [7150], Atlantic salmon (Salmo salar) [1106], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Bog woodland [91D0], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Slender naiad (Najas flexilis) [1833], Otter (Lutra lutra) [1355], Sea lamprey (Petromyzon marinus) [1095], Brook lamprey (Lampetra planeri) [1096], Freshwater pearl mussel (Margaritifera margaritifera) [1029], White-clawed crayfish (Austropotamobius pallipes) [1092], Slender green feather-moss (Hamatocaulis vernicosus) [6216]		
000299	Lough Cutra SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	B02.01.01, H06.02, B03, A10.01, H06.01, B01.01, B02.02, E01.03, E06.02, A10	Forest replanting (native trees), Light pollution, Forest exploitation without replanting or natural regrowth, Removal of hedges and copses or scrub, Noise nuisance, noise pollution, Forest planting on open ground (native trees), Forestry clearance, Dispersed habitation, Reconstruction, renovation of buildings, Restructuring agricultural land holding
000308	Loughatorick South Bog SAC	Blanket bogs * if active bog [7130]	A05.02, B01, C01.01.01, G01.02, H05.01, X, C01.03.02, A04, J01, B02, F03.01, G01.03.02	Stock feeding, Forest planting on open ground, Sand and gravel quarries, Walking, horseriding and non-motorised vehicles, Garbage and solid waste, No threats or pressures, Mechanical removal of peat, Grazing, Fire and fire suppression, Forest and Plantation management & use, Hunting, Off-road motorized driving

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
000318	Peterswell Turlough SAC	Rivers with muddy banks with Chenopodion rubri p.p. and Bidention p.p. vegetation [3270], Turloughs [3180]	H02.06, H01.08, A02.01, E03.03, J02.01.03, J02.10, A05.02, X, E03.01, A08, J02.01, B01, J02.05, A04	Diffuse groundwater pollution due to agricultural and forestry activities, Diffuse pollution to surface waters due to household sewage and waste waters, Agricultural intensification, Disposal of inert materials, Infilling of ditches, dykes, ponds, pools, marshes or pits, Management of aquatic and bank vegetation for drainage purposes, Stock feeding, No threats or pressures, Disposal of household or recreational facility waste, Fertilisation, Landfill, land reclamation and drying out, general, Forest planting on open ground, Modification of hydrographic functioning, general, Grazing
000319	Pollnaknockaun Wood Nature Reserve SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	X, B, B03, A04.01.01, J01, B06, A04.02.04	No threats or pressures, Sylviculture, forestry, Forest exploitation without replanting or natural regrowth, Intensive cattle grazing, Fire and fire suppression, Grazing in forests or woodland, Non intensive goat grazing
000432	Barrigone SAC	Marsh Fritillary (Euphydryas aurinia) [1065], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	K02.01, X, A04.03	Species composition change (succession), No threats or pressures, Abandonment of pastoral systems lack of grazing
000439	Tory Hill SAC	Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	J02, J02.01.03, X, A04.02.04	Human induced changes in hydraulic conditions, Infilling of ditches, dykes, ponds, pools, marshes or pits, No threats or pressures, Non intensive goat grazing
000606	Lough Fingall Complex SAC	Turloughs [3180], Alpine and Boreal heaths [4060], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Limestone pavements [8240], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Calcareous fens with Cladium	A04.02.01, A04.01.01, J02.01, A08, E03.03, A05.02, H02.06, C01, A04.03,	Non intensive cattle grazing, Intensive cattle grazing, Landfill, land reclamation and drying out, general, Fertilisation, Disposal of inert materials, Stock feeding, Diffuse groundwater pollution due to agricultural and forestry activities, Mining and quarrying, Abandonment of pastoral systems lack of grazing, Infilling of ditches, dykes, ponds,

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		mariscus and species of the Caricion davallianae [7210], Juniperus communis formations on heaths or calcareous grasslands [5130]	J02.01.03, E03.01, A02.01, H01.08, J02.07.02, J02.05, A04.01	pools, marshes or pits, Disposal of household or recreational facility waste, Agricultural intensification, Diffuse pollution to surface waters due to household sewage and waste waters, Groundwater abstractions for public water supply, Modification of hydrographic functioning, general, Intensive grazing
000930	Clare Glen SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Killarney fern (Trichomanes speciosum) [1421]	I01, B02.04, J02.11, G01, X, B02.02	Invasive non-native species, Removal of dead and dying trees, Siltation rate changes, dumping, depositing of dredged deposits, Outdoor sports and leisure activities, recreational activities, No threats or pressures, Forestry clearance
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]	M02.01, A04.01, A04.02.01	Habitat shifting and alteration, Intensive grazing, Non intensive cattle grazing
000994	Ballyteige (Clare) SAC	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410]	A04.03, A03.03, M01, A04.02	Abandonment of pastoral systems lack of grazing, Abandonment or lack of mowing , Changes in abiotic conditions, Non intensive grazing
000996	Ballyvaughan Turlough SAC	Turloughs [3180]	E01.03, A08, X, J02.06, A10.01	Dispersed habitation, Fertilisation, No threats or pressures, Water abstractions from surface waters, Removal of hedges and copses or scrub
001013	Glenomra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	D05, A10.01, E01.03, B06, G05.06, B02, D02.01	Improved access to site, Removal of hedges and copses or scrub, Dispersed habitation, Grazing in forests or woodland, Tree surgery, felling for public safety, removal of roadside trees, Forest and Plantation management & use, Electricity and phone lines
001021	Carrowmore Point to Spanish Point and Islands SAC	Perennial vegetation of stony banks [1220], Coastal lagoons [1150], Reefs [1170], Petrifying springs with tufa formation (Cratoneurion) [7220]	G01.01, A04, G01.02, A08, F02.03, K01.02, C01.01, F06, J02.12.01	Nautical sports, Grazing, Walking, horseriding and non-motorised vehicles, Fertilisation, Leisure fishing, Silting up, Sand and gravel extraction , Hunting, fishing or collecting activities not referred to above, Sea defense or coast protection works, tidal barrages

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001197	Keeper Hill SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130]	G01.03.01, D01.01, D02.03, X, K01.01, G01.03.02	Regular motorized driving, Paths, tracks, cycling tracks, Communication masts and antennas, No threats or pressures, Erosion, Off-road motorized driving
001275	Inisheer Island SAC	European dry heaths [4030], Reefs [1170], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Limestone pavements [8240], Coastal lagoons [1150], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	A02.01, C01.07, E04.01, D01.01, A10.01, A04.02.01, A04.03, I02	Agricultural intensification, Mining and extraction activities not referred to above, Agricultural structures, buildings in the landscape, Paths, tracks, cycling tracks, Removal of hedges and copses or scrub, Non intensive cattle grazing, Abandonment of pastoral systems lack of grazing, Problematic native species
001285	Kiltiernan Turlough SAC	Turloughs [3180]	A08, X, D01.02, A02.01, J02.05, H01.08, H02.06	Fertilisation, No threats or pressures, Roads, motorways, Agricultural intensification, Modification of hydrographic functioning, general, Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities
001313	Rosturra Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B06, B, A04, J01, X	Grazing in forests or woodland, Sylviculture, forestry, Grazing, Fire and fire suppression, No threats or pressures
001321	Termon Lough SAC	Turloughs [3180]	H01.08, H02.06, J02.05, A04.01.01, E03.03, A08, X, A10.01	Diffuse pollution to surface waters due to household sewage and waste waters, Diffuse groundwater pollution due to agricultural and forestry activities, Modification of hydrographic functioning, general, Intensive cattle grazing, Disposal of inert materials, Fertilisation, No threats or pressures, Removal of hedges and copses or scrub
001432	Glenstal Wood SAC	Killarney fern (Trichomanes speciosum) [1421]	I01, B02.03, K02.01	Invasive non-native species, Removal of forest undergrowth, Species composition change (succession)
001912	Glendree Bog SAC	Blanket bogs * if active bog [7130]	C01.03, B07, A01, A04, D01.01, B01, K01.01, G01.03.02, J01, B	Peat extraction, Forestry activities not referred to above, Cultivation, Grazing, Paths, tracks, cycling tracks, Forest planting on open ground, Erosion, Off-road motorized driving, Fire and fire suppression, Sylviculture, forestry

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001913	Sonnagh Bog SAC	Blanket bogs * if active bog [7130]	A05.02, B01, C01.03.02, B05, X, J01, A04.02	Stock feeding, Forest planting on open ground, Mechanical removal of peat, Use of fertilizers (forestry), No threats or pressures, Fire and fire suppression, Non intensive grazing
001926	East Burren Complex SAC	Petrifying springs with tufa formation (Cratoneurion) [7220], Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310], Juniperus communis formations on heaths or calcareous grasslands [5130], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Marsh Fritillary (Euphydryas aurinia) [1065], Calaminarian grasslands of the Violetalia calaminariae [6130], Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Otter (Lutra lutra) [1355], Turloughs [3180], Alkaline fens [7230], Alpine and Boreal heaths [4060], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Hard oligo-mesotrophic waters with benthic vegetation of Chara spp. [3140], Limestone pavements [8240]	I02, A10.01, A02, A04.02, D05, A05.02, D01.01, D01.02, G01, H01.08, A04.03, E03.01, A11, H01.05, A08, A10, A04.01, H02.06, H02.07, K02.01	Problematic native species, Removal of hedges and copses or scrub, Modification of cultivation practices, Non intensive grazing, Improved access to site, Stock feeding, Paths, tracks, cycling tracks, Roads, motorways, Outdoor sports and leisure activities, recreational activities, Diffuse pollution to surface waters due to household sewage and waste waters, Abandonment of pastoral systems lack of grazing, Disposal of household or recreational facility waste, Agriculture activities not referred to above, Diffuse pollution to surface waters due to agricultural and forestry activities, Fertilisation, Restructuring agricultural land holding, Intensive grazing, Diffuse groundwater pollution due to agricultural and forestry activities, Diffuse groundwater pollution due to non-sewered population, Species composition change (succession)
002010	Old Domestic Building (Keevagh) SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E01.03, A04, E06.02, X, K03.06, A10.01, E06.01, M02.03	Dispersed habitation, Grazing, Reconstruction, renovation of buildings, No threats or pressures, Antagonism with domestic animals, Removal of hedges and copses or scrub, Demolishment of buildings & human structures , Decline or extinction of species
002034	Connemara Bog Complex SAC	Natural dystrophic lakes and ponds [3160], Blanket bogs * if active bog [7130], Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0], Northern	C01.03.02, X, C01.03.01, J01, A04.01.02	Mechanical removal of peat, No threats or pressures, Hand cutting of peat, Fire and fire suppression, Intensive sheep grazing

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		Atlantic wet heaths with Erica tetralix [4010], Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto-Nanojuncetea [3130], Atlantic salmon (Salmo salar) [1106], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Transition mires and quaking bogs [7140], Depressions on peat substrates of the Rhynchosporion [7150], Otter (Lutra lutra) [1355], European dry heaths [4030], Coastal lagoons [1150], Marsh Fritillary (Euphydryas aurinia) [1065], Reefs [1170], Slender naiad (Najas flexilis) [1833], Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae) [3110], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Alkaline fens [7230]		
002091	Newhall and Edenvale Complex SAC	Caves not open to the public [8310], Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	G05.04, A04	Vandalism, Grazing
002117	Lough Coy SAC	Turloughs [3180]	A10.01, J02.01.03, H02.06, J02.05, E03.03, H04.01, A08, H01.08, X	Removal of hedges and copses or scrub, Infilling of ditches, dykes, ponds, pools, marshes or pits, Diffuse groundwater pollution due to agricultural and forestry activities, Modification of hydrographic functioning, general, Disposal of inert materials, Acid rain, Fertilisation, Diffuse pollution to surface waters due to household sewage and waste waters, No threats or pressures
002126	Pollagoona Bog SAC	Blanket bogs * if active bog [7130]	L10, B02.02, J02, J01.01	Other natural catastrophes, Forestry clearance, Human induced changes in hydraulic conditions, Burning down
002157	Newgrove House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	B02.01.02, G05.09, E01.03, A04, A10.01	Forest replanting (non native trees), Fences, fencing, Dispersed habitation, Grazing, Removal of hedges and copses or scrub

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002165	Lower River Shannon SAC	Coastal lagoons [1150], Large shallow inlets and bays [1160], Reefs [1170], Salicornia and other annuals colonising mud and sand [1310], Sea lamprey (Petromyzon marinus) [1095], Estuaries [1130], Perennial vegetation of stony banks [1220], Brook lamprey (Lampetra planeri) [1096], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Mediterranean salt meadows (Juncetalia maritimi) [1410], River lamprey (Lampetra fluviatilis) [1099], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Freshwater pearl mussel (Margaritifera margaritifera) [1029], Bottlenose dolphin (Tursiops truncatus) [1349], Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410], Mudflats and sandflats not covered by seawater at low tide [1140], Otter (Lutra lutra) [1355], Sandbanks which are slightly covered by sea water all the time [1110], Atlantic salmon (Salmo salar) [1106], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	K02.03, C01.03.01, F01, A08, J02.10, G01.01, F02.03, F03.01, H04, B, E01, J02.12.01, E03, J02.01.02, D01.01, I01, C01.01.02, J02.01.01, A04	Eutrophication (natural), Hand cutting of peat, Marine and Freshwater Aquaculture, Fertilisation, Management of aquatic and bank vegetation for drainage purposes, Nautical sports, Leisure fishing, Hunting, Air pollution, air-borne pollutants, Sylviculture, forestry, Urbanised areas, human habitation, Sea defense or coast protection works, tidal barrages, Discharges, Reclamation of land from sea, estuary or marsh, Paths, tracks, cycling tracks, Invasive non-native species, Removal of beach materials, Polderisation, Grazing
002180	Gortacarnaun Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	B02, B02.05, B06, B02.06, B01, A04.02, I01, B02.02	Forest and Plantation management & use, Non- intensive timber production (leaving dead wood or old trees untouched), Grazing in forests or woodland, Thinning of tree layer, Forest planting on open ground, Non intensive grazing, Invasive non-native species, Forestry clearance
002181	Drummin Wood SAC	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	I01, B02.06, B02.02, B02, B01, B06, B02.05, A04.02	Invasive non-native species, Thinning of tree layer, Forestry clearance, Forest and Plantation management & use, Forest planting on open ground, Grazing in forests or woodland, Non- intensive timber production (leaving dead wood or old trees untouched), Non intensive grazing

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002241	Lough Derg, North-East Shore SAC	Taxus baccata woods of the British Isles [91J0], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240], Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210], Alkaline fens [7230]	J02.10, K02.03, K02.01, I01, J02.01.03, J02, A10.01, M01.01, C01, I02, B02.01.01, A04.01, A04.02.05, H01, A08, D03.01.02, M01.02, H01.08, M01.03, G01, G02.09, D01.01	Management of aquatic and bank vegetation for drainage purposes, Eutrophication (natural), Species composition change (succession), Invasive non-native species, Infilling of ditches, dykes, ponds, pools, marshes or pits, Human induced changes in hydraulic conditions, Removal of hedges and copses or scrub, Temperature changes (e.g. rise of temperature & extremes), Mining and quarrying, Problematic native species, Forest replanting (native trees), Intensive grazing, Non intensive mixed animal grazing, Pollution to surface waters (limnic & terrestrial, marine & brackish), Fertilisation, Piers or tourist harbours or recreational piers, Droughts and less precipitations, Diffuse pollution to surface waters due to household sewage and waste waters, Flooding and rising precipitations, Outdoor sports and leisure activities, recreational activities, Wildlife watching, Paths, tracks, cycling tracks
002244	Ardrahan Grassland SAC	Alpine and Boreal heaths [4060], Juniperus communis formations on heaths or calcareous grasslands [5130], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) * important orchid sites [6210]	E04, E03.03, A10.01, D01, A04.02.01, A08, A04.03, A04.01.03, A05.02	Structures, buildings in the landscape, Disposal of inert materials, Removal of hedges and copses or scrub, Roads, paths and railroads, Non intensive cattle grazing, Fertilisation, Abandonment of pastoral systems lack of grazing, Intensive horse grazing, Stock feeding
002245	Old Farm Buildings, Ballymacrogan SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04, A10.02, E04.01, A10.01, E01.03, K03	Grazing, Removal of stone walls and embankments, Agricultural structures, buildings in the landscape, Removal of hedges and copses or scrub, Dispersed habitation, Interspecific faunal relations
002246	Ballycullinan, Old Domestic Building SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04.02.05, E06.01, A10.01, G05	Non intensive mixed animal grazing, Demolishment of buildings & human structures , Removal of hedges and copses or scrub, Other human intrusions and disturbances

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002247	Toonagh Estate SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E01.03, A04, E06.02, A10.01, I02	Dispersed habitation, Grazing, Reconstruction, renovation of buildings, Removal of hedges and copses or scrub, Problematic native species
002250	Carrowmore Dunes SAC	Embryonic shifting dunes [2110], Shifting dunes along the shoreline with Ammophila arenaria - white dunes [2120], Narrow-mouthed whorl snail (Vertigo angustior) [1014], Fixed coastal dunes with herbaceous vegetation - grey dunes [2130], Narrow-mouthed Whorl Snail (Vertigo angustior) [1014], Reefs [1170]	A04, F06, C01.01, A08, K01.01, G01.01, A05.02	Grazing, Hunting, fishing or collecting activities not referred to above, Sand and gravel extraction , Fertilisation, Erosion, Nautical sports, Stock feeding
002258	Silvermines Mountains West SAC	European dry heaths [4030], Calaminarian grasslands of the Violetalia calaminariae [6130], Northern Atlantic wet heaths with Erica tetralix [4010]	J01, A04.02.04, D01.01, G01.02, X, C01.04, G01.03, A04.02.03	Fire and fire suppression, Non intensive goat grazing, Paths, tracks, cycling tracks, Walking, horseriding and non-motorised vehicles, No threats or pressures, Mines, Motorised vehicles, Non intensive horse grazing
002263	Kerry Head Shoal SAC	Reefs [1170]	F06, F02.03	Hunting, fishing or collecting activities not referred to above, Leisure fishing
002264	Kilkee Reefs SAC	Submerged or partially submerged sea caves [8330], Large shallow inlets and bays [1160], Reefs [1170]	J02.12.01, F02.03, X, G05, G01.01	Sea defence or coast protection works, tidal barrages, Leisure fishing, No threats or pressures, Other human intrusions and disturbances , Nautical sports
002279	Askeaton Fen Complex SAC	Alkaline fens [7230], Calcareous fens with Cladium mariscus and species of the Caricion davallianae [7210]	H02, X, E01.03, A08, J01, J02.01.02, A10.01	Pollution to groundwater (point sources and diffuse sources), No threats or pressures, Dispersed habitation, Fertilisation, Fire and fire suppression, Reclamation of land from sea, estuary or marsh, Removal of hedges and copses or scrub
002293	Carrowbaun, Newhall and Ballylee Turloughs SAC	Turloughs [3180]	J02.04.01, D01, E03.01, E03.03, H01.08, J02.01.03, A10.01, H02.06, J02.10, J02.05,	Flooding, Roads, paths and railroads, Disposal of household or recreational facility waste, Disposal of inert materials, Diffuse pollution to surface waters due to household sewage and waste waters, Infilling of ditches, dykes, ponds, pools, marshes or pits, Removal of hedges and copses or scrub, Diffuse groundwater pollution due to agricultural and

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			A08, E06.02, E06.01, A02.01	forestry activities, Management of aquatic and bank vegetation for drainage purposes, Modification of hydrographic functioning, general, Fertilisation, Reconstruction, renovation of buildings, Demolishment of buildings & human structures , Agricultural intensification
002294	Cahermore Turlough SAC	Turloughs [3180]	J02.05, A08, H02.06, J02.04.01, A10.01, J02.01.03, E03.03, A02.01, H01.08	Modification of hydrographic functioning, general, Fertilisation, Diffuse groundwater pollution due to agricultural and forestry activities, Flooding, Removal of hedges and copses or scrub, Infilling of ditches, dykes, ponds, pools, marshes or pits, Disposal of inert materials, Agricultural intensification, Diffuse pollution to surface waters due to household sewage and waste waters
002295	Ballinduff Turlough SAC	Turloughs [3180]	E03.03, H02.06, A10.01, A08, H01.08, A02.01, X, J02.05	Disposal of inert materials, Diffuse groundwater pollution due to agricultural and forestry activities, Removal of hedges and copses or scrub, Fertilisation, Diffuse pollution to surface waters due to household sewage and waste waters, Agricultural intensification, No threats or pressures, Modification of hydrographic functioning, general
002312	Slieve Bernagh Bog SAC	Northern Atlantic wet heaths with Erica tetralix [4010], Blanket bogs * if active bog [7130], European dry heaths [4030]	A04, C01.03.02, C01.01, G01.03.02, J02.01, D01.01, J01, G05.01, G01.02, A04.03, B02	Grazing, Mechanical removal of peat, Sand and gravel extraction , Off-road motorized driving, Landfill, land reclamation and drying out, general, Paths, tracks, cycling tracks, Fire and fire suppression, Trampling, overuse, Walking, horseriding and non-motorised vehicles, Abandonment of pastoral systems lack of grazing, Forest and Plantation management & use
002314	Old Domestic Buildings, Rylane SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A10.01, B02.02, B01.01, A04, E06.01	Removal of hedges and copses or scrub, Forestry clearance, Forest planting on open ground (native trees), Grazing, Demolishment of buildings & human structures
002316	Ratty River Cave SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303], Caves not open to the public [8310]	A10.01, E06.01, A04	Removal of hedges and copses or scrub, Demolishment of buildings & human structures , Grazing

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002317	Cregg House Stables, Crusheen SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	E06.02, X	Reconstruction, renovation of buildings, No threats or pressures
002318	Knockanira House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04	Grazing
002319	Kilkishen House SAC	Lesser horseshoe bat (Rhinolophus hipposideros) [1303]	A04, A10.01, E06.01	Grazing, Removal of hedges and copses or scrub, Demolishment of buildings & human structures
002343	Tullaher Lough and Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150], Transition mires and quaking bogs [7140]	D01.02, A04, C01.03.01, A08, A03, J01, C01.03	Roads, motorways, Grazing, Hand cutting of peat, Fertilisation, Mowing or cutting of grassland, Fire and fire suppression, Peat extraction
002351	Moanveanlagh Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120], Depressions on peat substrates of the Rhynchosporion [7150]	X, E03.01, I01, C01.03, J02.01, A01, D01.01, A04, J01	No threats or pressures, Disposal of household or recreational facility waste, Invasive non-native species, Peat extraction, Landfill, land reclamation and drying out, general, Cultivation, Paths, tracks, cycling tracks, Grazing, Fire and fire suppression
004005	Cliffs of Moher SPA	Puffin (Fratercula arctica) [A204], Kittiwake (Rissa tridactyla) [A188], Fulmar (Fulmarus glacialis) [A009], Razorbill (Alca torda) [A200], Guillemot (Uria aalge) [A199], Chough (Pyrrhocorax pyrrhocorax) [A346]	G03, H06.01, G01.02	Interpretative centres, Noise nuisance, noise pollution, Walking, horseriding and non-motorised vehicles
004031	Inner Galway Bay SPA	Common tern (Sterna hirundo) [A193], Great Northern Diver (Gavia immer) [A003], Red-breasted Merganser (Mergus serrator) [A069], Wetland and Waterbirds [A999], Golden Plover (Pluvialis apricaria) [A140], Ringed Plover (Charadrius hiaticula) [A137], Bar-tailed Godwit (Limosa lapponica) [A157], Dunlin (Calidris alpina) [A149], Redshank (Tringa totanus) [A162], Black-throated Diver (Gavia arctica) [A002], Turnstone (Arenaria interpres) [A169], Grey Heron (Ardea cinerea) [A028], Black-headed Gull (Chroicocephalus ridibundus) [A179], Light-bellied	F01, F02.03, E03, E02, E01, F03.01, D01.02, G01.01, A04, J02.12, J02.01.02, A08, G01.02	Marine and Freshwater Aquaculture, Leisure fishing, Discharges, Industrial or commercial areas, Urbanised areas, human habitation, Hunting, Roads, motorways, Nautical sports, Grazing, Dykes, embankments, artificial beaches, general, Reclamation of land from sea, estuary or marsh, Fertilisation, Walking, horseriding and non-motorised vehicles

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
		Brent Goose (Branta bernicla hrota) [A046], Common Gull (Larus canus) [A182], Curlew (Numenius arquata) [A160], Teal (Anas crecca) [A052], Sandwich Tern (Sterna sandvicensis) [A191], Lapwing (Vanellus vanellus) [A142], Wigeon (Anas penelope) [A050], Cormorant (Phalacrocorax carbo) [A017]		
004041	Ballyallia Lough SPA	Coot (Fulica atra) [A125], Mallard (Anas platyrhynchos) [A053], Wigeon (Anas penelope) [A050], Wetland and Waterbirds [A999], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Shoveler (Anas clypeata) [A056], Gadwall (Anas strepera) [A051]	G01.01, A04, G01.02, A08, E01	Nautical sports, Grazing, Walking, horseriding and non-motorised vehicles, Fertilisation, Urbanised areas, human habitation
004042	Lough Corrib SPA	Wetland and Waterbirds [A999], Common Gull (Larus canus) [A182], Coot (Fulica atra) [A125], Greenland White-fronted Goose (Anser albifrons flavirostris) [A395], Hen Harrier (Circus cyaneus) [A082], Common tern (Sterna hirundo) [A193], Gadwall (Anas strepera) [A051], Golden Plover (Pluvialis apricaria) [A140], Tufted Duck (Aythya fuligula) [A061], Shoveler (Anas clypeata) [A056], Common Scoter (Melanitta nigra) [A065], Pochard (Aythya ferina) [A059], Black-headed Gull (Chroicocephalus ridibundus) [A179], Arctic tern (Sterna paradisaea) [A194]	F02.03, F03.01, G01.01, E01, A08, A04, B	Leisure fishing, Hunting, Nautical sports, Urbanised areas, human habitation, Fertilisation, Grazing, Sylviculture, forestry
004056	Lough Cutra SPA	Cormorant (Phalacrocorax carbo) [A017]	A08, B, F02.03, A04, F03.01	Fertilisation, Sylviculture, forestry, Leisure fishing, Grazing, Hunting
004058	Lough Derg (Shannon) SPA	Wetland and Waterbirds [A999], Tufted Duck (Aythya fuligula) [A061], Common tern (Sterna hirundo) [A193], Cormorant (Phalacrocorax carbo) [A017], Goldeneye (Bucephala clangula) [A067]	G01.01, A08, F02.03, F03.01	Nautical sports, Fertilisation, Leisure fishing, Hunting

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
004077	River Shannon and River Fergus Estuaries SPA	Black-headed Gull (Chroicocephalus ridibundus) [A179], Greenshank (Tringa nebularia) [A164], Lapwing (Vanellus vanellus) [A142], Scaup (Aythya marila) [A062], Pintail (Anas acuta) [A054], Black-tailed Godwit (Limosa limosa) [A156], Knot (Calidris canutus) [A143], Redshank (Tringa totanus) [A162], Curlew (Numenius arquata) [A160], Whooper Swan (Cygnus cygnus) [A038], Bar-tailed Godwit (Limosa lapponica) [A157], Shelduck (Tadorna tadorna) [A048], Shoveler (Anas clypeata) [A056], Dunlin (Calidris alpina) [A149], Golden Plover (Pluvialis apricaria) [A140], Light-bellied Brent Goose (Branta bernicla hrota) [A046], Grey Plover (Pluvialis squatarola) [A141], Wigeon (Anas penelope) [A050], Ringed Plover (Charadrius hiaticula) [A137], Cormorant (Phalacrocorax carbo) [A017], Teal (Anas crecca) [A052], Wetland and Waterbirds [A999]	G01.01, D03.02, F01, A08, E01, E02, E03	Nautical sports, Shipping lanes, Marine and Freshwater Aquaculture, Fertilisation, Urbanised areas, human habitation, Industrial or commercial areas, Discharges
004096	Middle Shannon Callows SPA	Golden Plover (Pluvialis apricaria) [A140], Black-headed Gull (Chroicocephalus ridibundus) [A179], Wigeon (Anas penelope) [A050], Black-tailed Godwit (Limosa limosa) [A156], Corncrake (Crex crex) [A122], Lapwing (Vanellus vanellus) [A142], Wetland and Waterbirds [A999], Whooper Swan (Cygnus cygnus) [A038]	D01.01, A04, G01.02, D01.05, G01.01, A08, F03.01, F02.03, E01, A04.03, A03	Paths, tracks, cycling tracks, Grazing, Walking, horseriding and non-motorised vehicles, Bridge, viaduct, Nautical sports, Fertilisation, Hunting, Leisure fishing, Urbanised areas, human habitation, Abandonment of pastoral systems lack of grazing, Mowing or cutting of grassland
004107	Coole-Garryland SPA	Whooper swan (Cygnus cygnus) [A038]	A08, G03, A04, B, F03.01, K03, G01.02, E03.01, B03	Fertilisation, Interpretative centres, Grazing, Sylviculture, forestry, Hunting, Interspecific faunal relations, Walking, horseriding and non-motorised vehicles, Disposal of household or recreational facility waste, Forest exploitation without replanting or natural regrowth
004114	Illaunonearaun SPA	Barnacle goose (Branta leucopsis) [A045]	X	No threats or pressures

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
004119	Loop Head SPA	Kittiwake (Rissa tridactyla) [A188], Guillemot (Uria aalge) [A199]	A04, G01.02	Grazing, Walking, horseriding and non-motorised vehicles
004142	Cregganna Marsh SPA	Greenland White-fronted Goose (Anser albifrons flavirostris) [A395]	A04, E01.02, A08	Grazing, Discontinuous urbanisation, Fertilisation
004161	Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA	Hen harrier (Circus cyaneus) [A082]	B, D01.01, A09, C01.03, D01.02, E01.03	Sylviculture, forestry, Paths, tracks, cycling tracks, Irrigation, Peat extraction, Roads, motorways, Dispersed habitation
004165	Slievefelim to Silvermines Mountains SPA	Hen harrier (Circus cyaneus) [A082]	B, D01.02, E01.03, A04, D01.01, C01.03	Sylviculture, forestry, Roads, motorways, Dispersed habitation, Grazing, Paths, tracks, cycling tracks, Peat extraction
004168	Slieve Aughty Mountains SPA	Hen harrier (Circus cyaneus) [A082], Merlin (Falco columbarius) [A098]	A04, D01.02, E01.03, B, D01.01, C01.03	Grazing, Roads, motorways, Dispersed habitation, Sylviculture, forestry, Paths, tracks, cycling tracks, Peat extraction
004181	Connemara Bog Complex SPA	Golden Plover (Pluvialis apricaria) [A140], Common Gull (Larus canus) [A182], Merlin (Falco columbarius) [A098], Cormorant (Phalacrocorax carbo) [A017]	D01.02, G01.02, I01, E01.03, C01.03.02, B	Roads, motorways, Walking, horseriding and non-motorised vehicles, Invasive non-native species, Dispersed habitation, Mechanical removal of peat, Sylviculture, forestry
004182	Mid-Clare Coast SPA	Sanderling (Calidris alba) [A144], Turnstone (Arenaria interpres) [A169], Purple Sandpiper (Calidris maritima) [A148], Cormorant (Phalacrocorax carbo) [A017], Ringed Plover (Charadrius hiaticula) [A137], Wetland and Waterbirds [A999], Barnacle goose (Branta leucopsis) [A045], Dunlin (Calidris alpina) [A149]	A04, G01.02, G01.01, F02.03	Grazing, Walking, horseriding and non-motorised vehicles, Nautical sports, Leisure fishing
004189	Kerry Head SPA	Chough (Pyrrhocorax pyrrhocorax) [A346], Northern fulmar (Fulmarus glacialis) [A009]	E05, A01, E04.01, A07, A04, A02, A04.03	Storage of materials, Cultivation, Agricultural structures, buildings in the landscape, Use of biocides, hormones and chemicals, Grazing, Modification of cultivation practices, Abandonment of pastoral systems lack of grazing

Site Code	Site Name	Qualifying Feature	Pressures Codes	Known Threats and Pressures
004220	Corofin Wetlands SPA	Wetland and Waterbirds [A999], Wigeon (Anas penelope) [A050], Teal (Anas crecca) [A052], Black-tailed Godwit (Limosa limosa) [A156], Little Grebe (Tachybaptus ruficollis) [A004], Whooper Swan (Cygnus cygnus) [A038]	A04, D01.02, E01.03, E01	Grazing, Roads, motorways, Dispersed habitation, Urbanised areas, human habitation

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
Narrow-mouthed Whorl Snail (Vertigo angustior)	[1014]	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.
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.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Salmon (Salmo salar)	[1106]	Marine survival rates are of concern for the populations.	Disease, parasites and barriers to movement.
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.
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.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
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.
Harbour Seal(Phoca vitulina)	[1365]	Distance to human activities, accidental entanglement in fishing gear competition for prey resources, illegal killing, pollution and habitat degradation.	Prey availability, reduction in available habitat and water quality.
Petalwort(Petalophyllum ralfsii)	[1395]	There are no significant impacts affecting this species.	None identified.
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
Slender Naiad(Najas flexilis)	[1833]	Enrichment from human induced pressures leading to eutrofication.	Changes in management. Changes in nutrient or base status. Moderately sensitive to hydrological change.
Embryonic shifting dunes	[2110]	Natural erosion processes exacerbated by recreation and sand extraction. Coastal protection interfering with natural processes.	Overgrazing, and erosion. Changes in management.
Shifting dunes along the shoreline with white dunes(Ammophila arenaria)	[2120]	Recreation and coastal defences, which may interfere with local sediment dynamics.	Overgrazing, and erosion. Changes in management.
Fixed coastal dunes with herbaceous vegetation (grey dunes)	[2130]	Recreation; overgrazing and inappropriate grazing: non-native plant species, particularly sea buckthorn (Hippophae rhamnoides).	Overgrazing, and erosion. Changes in management.
Machairs (* in Ireland)	[21A0]	Unsuitable grazing pressures are the key concern.	Overgrazing, and erosion. Changes in management. Mismanaged recreational activity.
Oligotrophic waters containing very few minerals of sandy plains (Littorelletalia uniflorae)	[3110]	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.
Oligotrophic to mesotrophic standing waters with vegetation (Littorelletea uniflorae and/or Isoeto-Nanojuncetea)	[3130]	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.
Hard oligo-mesotrophic waters with benthic vegetation of muskgrass(Chara spp.)	[3140]	Hydrological changes, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	[3150]	Hydrological changes, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
Natural dystrophic lakes and ponds	[3160]	Nutrient alterations; management shifts in the associated peatland habitat, afforestation; waste water; invasive alien species; sport and leisure activities.	Surface and groundwater dependant. Highly sensitive to hydrological changes. 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.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
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.
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.
Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis)	[6510]	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.

Qualifying Interests	EU Code	Current threats to Qualifying Interests	Sensitivity of Qualifying Interests
			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.
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.
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.
Submerged or partially submerged sea caves	[8330]	There are no pressures acting on this resource.	There are no pressures acting on this resource.
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.
Bog woodland	[91D0]	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 Area of Conservation 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
A002	Black-throated Diver	Gavia arctica arctica	Xxp/Xxt	No threats and pressures identified by the NPWS
A003	Great Northern Diver	Gavia immer	C03, F02, G01, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution
A004	Little Grebe	Tachybaptus ruficollis ruficollis	G01, H01, H03, J02	Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Human induced changes in hydraulic conditions
A009	Northern Fulmar	Fulmarus glacialis	C03, F02	Renewable abiotic energy use, Fishing and harvesting aquatic resources
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
A028	Grey Heron	Ardea cinerea cinerea	H01, Xxp/Xxt	Pollution to surface waters (limnic & terrestrial, marine & brackish), No threats and pressures identified by the NPWS
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
A045	Barnacle Goose	Branta leucopsis	A11, C03, D02	Agriculture activities not referred to above, Renewable abiotic energy use, Utility and service lines
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

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
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
A051	Gadwall	Anas strepera strepera	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 (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Human induced changes in hydraulic conditions
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 (limnic & terrestrial, marine & brackish), Marine water pollution, Other forms of pollution, Human induced changes in hydraulic conditions
A053	Mallard	Anas platyrhynchos platyrhynchos	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 (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

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A059	Common Pochard	Aythya ferina	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
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
A065	Common Scoter	Melanitta nigra nigra	A04, C03, F02, G01, H01, H03, I01, K03, M02	Grazing, Renewable abiotic energy use, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish), Marine water pollution, Invasive non-native species, Interspecific faunal relations, Changes in biotic conditions
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
A069	Red-Breasted Merganser	Mergus serrator	C03, F01, F02, G01, H03	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Fishing and harvesting aquatic resources, Outdoor sports and leisure activities, recreational activities, Marine water pollution
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, 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
A098	Merlin	Falco columbarius	A02, B01, B02, C03, M02	Modification of cultivation practices, Forest planting on open ground, Forest and Plantation management & use, Renewable abiotic energy use, Changes in biotic conditions

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
A122	Corncrake	Crex crex	A03.01, A04.01, K03.04, M01.03	Intensive Mowing or intensification, Intensive grazing, Predation, Flooding and rising precipitations
A125	Eurasian Coot	Fulica atra atra	C03, G01, H01	Renewable abiotic energy use, Outdoor sports and leisure activities, recreational activities, Pollution to surface waters (limnic & terrestrial, marine & brackish)
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
A144	Sanderling	Calidris alba	C03, F01, G01, H03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Changes in abiotic conditions
A148	Purple Sandpiper	Calidris maritima maritima	C03, G01, H03, J03, M01	Renewable abiotic energy use, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Other Ecosystem Modifications, Changes in abiotic conditions

Species Code	Common Name	Scientific Name	Threats and Pressures Codes	Known Threats and Pressures
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, 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 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
A169	Ruddy Turnstone	Arenaria interpres	C03, F01, G01, H03, J03, M01	Renewable abiotic energy use, Marine and Freshwater Aquaculture, Outdoor sports and leisure activities, recreational activities, Marine water pollution, Other Ecosystem Modifications, 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
A182	Common Gull	Larus canus	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
A188	Kittiwake	Rissa tridactyla	C03, F02, H03	Renewable abiotic energy use, Fishing and harvesting aquatic resources, Marine water pollution
A191	Sandwich Tern	Sterna sandvicensis	C03, I01	Renewable abiotic energy use, Invasive non-native species
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
A194	Arctic Tern	Sterna paradisaea	C03, D01, G01, I01, M01	Renewable abiotic energy use, Roads, paths and railroads, Outdoor sports and leisure activities, recreational activities, Invasive non-native species, Changes in abiotic conditions
A199	Common Guillemot	Uria aalge albionis	C03, H03	Renewable abiotic energy use, Marine water pollution
A200	Razorbill	Alca torda	C03, H03	Renewable abiotic energy use, Marine water pollution
A204	Atlantic Puffin	Fratercula arctica	C03, H03, I01	Renewable abiotic energy use, Marine water pollution, Invasive non-native species
A346	Chough	Pyrrhocorax pyrrhocorax	A02, A04, E06, G01	Modification of cultivation practices, Grazing, Other urbanisation, industrial and similar activities, Outdoor sports and leisure activities, recreational activities
A395	Greenland White-Fronted Goose	Anser albifrons flavirostris	A02, A04, A06, A11, B01, C03, D02, D05, F01, F03, G01, H03, H07, K03, M01, M02	Modification of cultivation practices, Grazing, Annual and perennial non-timber crops, Agriculture activities not referred to above, Forest planting on open ground, Renewable abiotic energy use, Utility and service lines, Improved access to site, Marine and Freshwater Aquaculture, Hunting and collection of wild animals (terrestrial), Outdoor sports and leisure activities, recreational activities, Marine water pollution, Other forms of pollution, Interspecific faunal relations, Changes in abiotic conditions, Changes in biotic conditions

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