APPENDIX 1

APPROPRIATE ASSESSMENT SCREENING FOR SHMP

Orsted Onshore Ireland Midco Limited

Screening for Appropriate Assessment: Species and Habitat Management Plan

Proposed Oatfield Wind Farm Project, Co. Clare: ABP Case No. ABP-318782-24

June 2024

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1.1 Introduction

This Screening Report for Appropriate Assessment presents a review of relevant EU designated sites of nature conservation value (termed 'European Sites' or 'Natura 2000 sites') and identifies any potential Likely Significant Effects (LSE) from the implementation of a proposed Species and Habitat Management Plan (SHMP) on internationally designated sites. The SHMP was submitted as part of the planning application (**EIAR Appendix 7.1**) made to An Bord Pleanála (ABP) on 22nd December 2023 for the Oatfield Wind Farm Project (hereafter referred to as the 'Proposed Development'). The ABP Case Number is ABP-318782-24.

The SHMP (**EIAR Appendix 7.1**, hereafter referred to as 'the SHMP') details required mitigation, enhancement and monitoring to avoid significant adverse effects on species and habitats from the Proposed Development. It focuses on two key ecological features identified in **EIAR Chapter 8 Ornithology**: Hen Harrier (*Circus cyaneus*) and Red Grouse (*Lagopus lagopus*). By providing detailed management prescriptions for these species and their habitats, the SHMP will also ensure appropriate mitigation and enhancements are delivered for other key ecological features (i.e., habitats and species).

The activities prescribed in the SHMP, which are assessed in this report, comprise the management, creation and enhancement of habitats for Hen Harrier, Red Grouse and other species in the areas identified in SHMP Figures 1-20 to 1-25. These areas are collectively referred to as the 'SHMP Area'. Further information is provided in Section 1.3 below.

It should be noted that these SHMP activities comprise biodiversity enhancements targeting the key ecological features identified in **EIAR Chapter 7 Biodiversity** and **EIAR Chapter 8 Ornithology** as being relevant in the context of the Proposed Development and nearby European Sites. As such, the SHMP activities are intended to be beneficial to habitats and species including those forming qualifying features of relevant European Sites. Nonetheless, Screening for Appropriate Assessment is undertaken herein to identify any potential LSE on European Sites resulting from the SHMP activities. If potential LSE on a European Site are identified, an Appropriate Assessment must be undertaken to identify any adverse effects on the integrity of the European Site.

This document provides background information to support a 'Screening for Appropriate Assessment' for the activities prescribed in the SHMP. It includes a description of relevant SHMP activities, context on potentially relevant ecological receptors within the geographical area of the SHMP, details of European Sites within the Zone of Influence of the SHMP (i.e., the potential zone of impact), and an assessment of potential impacts.

The purpose of the screening stage is to determine, based on best scientific knowledge and objective criteria, whether a plan or project, alone or in combination with other plans or projects, could have a significant effect on a European Site in view of the European

Site's conservation objectives. There is no necessity to establish such an effect; instead, it is only necessary for the Competent Authority to determine that there may be such an effect. The need to apply the precautionary principle in making key decisions in relation to undertaking an Appropriate Assessment has been confirmed by the case law of the Court of Justice of the European Union. Plans or projects that have no appreciable effect on a European Site can be excluded.

This report has been prepared with regard to relevant legislation and best practice guidance including:

- OPR Practice Note PN01. Appropriate Assessment Screening for Development Management (Office of the Planning Regulator, 2021);
- Communication from the Commission on the Precautionary Principle (European Commission, 2000);
- Directive 92/43/EC (as amended) of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (the "*Habitats Directive*");
- Directive 2009/147/EC (as amended) of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds (the "*Birds Directive*");
- European Communities (Birds and Natural Habitats) Regulations 2011-2021 (as amended);
- Interpretation Manual of European Union Habitats. Version EUR 28. European Commission (European Commission, 2013);
- 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 (European Commission, 2021);
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government (DoEHLG, 2010);
- Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats Directive' 92/43/EEC, (European Commission, 2018); and
- Nature and biodiversity cases: Ruling of the European Court of Justice (European Commission, 2006).

1.1.1 Legislative context

Approximately 10% of the land area of Ireland is included within the network of European Sites, which includes Special Protection Areas (SPAs) to protect important areas for birds, and Special Areas of Conservation (SACs) to protect a range of habitats and species. Legal protection for these sites is provided by the Birds Directive and Habitats Directive (as amended), respectively, which are jointly transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

Article 6(3) of the Habitats Directive requires that, in relation to internationally designated sites (SACs and SPAs, and candidate sites for these designations), *"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".

The assessment is based on a four-stage approach, where the outcome at each successive stage determines whether a further stage in the process is required (see Section 1.4.1).

A Competent Authority (e.g., a Local Authority) can only agree to a plan or project after having determined that it will not adversely affect the integrity of the European Site concerned unless the derogation under the Article 6(4) of the Directive applies.

For the purposes of this assessment, and in accordance with EU case law (e.g., Commission of the European Communities v Ireland Case C-418/04), Important Bird Areas (IBAs) have also been considered herein due to their importance to the conservation of bird populations at an international level. For ease of reporting, all relevant internationally designated sites, including SPAs and SACs and candidate sites for these designations are collectively referred to as 'European Sites'.

1.1.2 Statement of authority

This report has been prepared by RSK Biocensus and Inis Environmental Consultants' Ltd (INIS) ecologists who are experienced in undertaking field surveys and assessments of relevant habitats and species. Relevant personnel include:

Andrew Whitfield MA BA CEnv CEcol (Associate Consultant): Andrew has over 30 years of experience in undertaking and co-ordinating ecological and environmental impact assessments across a wide variety of infrastructure projects. These include projects of varying type and scale, ranging from new nuclear power generation facilities and housing developments to major road and rail construction schemes. Andrew has undertaken Habitats Regulations Assessments (HRA) of various plans and projects including transport improvement options for the Scottish Government, water supply options for Greater London, and the Heads of the Valleys road improvements in South Wales. Andrew has also given evidence at approximately 20 planning inquiries/hearings in the UK, Ireland and Africa.

Howard Williams BSc CEnv CBiol MRSB MIFM (Principal Ecologist and CEO, INIS): Chartered Environmentalist and Chartered Biologist who has authored and managed Ecological Impact Assessments (EcIA), Construction Environmental Management Plans and Article 6 Appropriate Assessments for over 50 wind farm projects. Howard is an expert in avian ecology and has extensive knowledge and experience of providing management recommendations for a range of terrestrial and aquatic protected species.

Dr Alex Copland BSc PhD MIEnvSc MCIEEM (Technical Director, INIS): Has over 25 years of professional experience working in both statutory and private companies, in third-level research institutions and with environmental NGOs. He is a full member of the Institute of Environmental Sciences (IES) and the Chartered Institute of Ecology and Environmental Management (CIEEM). He is proficient in experimental design and data analysis and has managed several large-scale, multi-disciplinary ecological projects. These have included research and targeted management work for species of conservation concern, the design and delivery of practical conservation actions with a range of stakeholders and end-users, education and interpretation on the interface between people and the environment and the development of coordinated, strategic

plans for birds and biodiversity. He has written numerous scientific papers, developed and contributed to evidence-based position papers, visions and strategies on birds and habitats in Ireland. He also sits on the Editorial Panel of the scientific journal, *Irish Birds*, which publishes original ornithological research relevant to Ireland's avifauna. Alex provided technical support during the production of the EIAR chapter.

Peter O Connor BA MSc (Lead GIS Specialist, INIS): Lead GIS Specialist experienced in overseeing the completion of mapping for multiple wind farm projects. Peter has experience in conducting Viewshed Analysis in support of selected Vantage Points for ornithological surveys, involving the complex use of Digital Terrain Models and/or Digital Elevations Models in addition to bespoke Viewshed Analysis plugins for QGIS. Peter also has experience with field data capture and integration into project mapping (e.g., for habitats, birds, bats and invasive species), including for figures supporting EIAR chapters and associated reports.

Nick Henson CEnv MCIEEM (Associate Director, RSK Biocensus): Nick has a wealth of experience from over 18 years as an ecological consultant. Nick has produced and reviewed numerous Appropriate Assessment Screening and NIS reports, and he has a specialism in ornithology through which he has provided technical support to various projects including wind farms, for which he has extensive experience of providing technical advice and leadership in the UK and Ireland.

George Wilkinson BSc MSc MCIEEM (Senior Ornithologist, RSK Biocensus): George has over six years of consultancy experience and over 15 years of birdwatching experience. His work has primarily focused on ornithological surveys, impact assessment and habitat management in the UK, during which he has frequently led ornithological assessments and surveys for a variety of species and development types including wind farms. This has included work on wind farms and other development types in Ireland. George has also authored and reviewed multiple HRA and NIS reports.

1.2 Consultation

Consultees and their responses are listed in full in **EIAR Chapter 3 Scoping Consultations, Community Engagement and Key Issues**. Regarding potential impacts on features relevant to European Sites, the following bodies were consulted in relation to the Proposed Development and SHMP:

- An Bord Pleanála pre-application consultation;
- National Parks and Wildlife Service (NPWS): Sensitive data request issued 24/02/2023, response received 06/03/2023 (areas searched: R56 and R57);
- NPWS Development Applications Unit (DAU): Request for recommendations and observations issued 21/02/2023, response received 30/03/2023. The DAU made no comment on this referral;
- Inland Fisheries Ireland: Contacted 24/02/2023, response received 13/04/2023; and
- BirdWatch Ireland: Request for recommendations issued, no response received.

1.3 Description of proposed SHMP activities

The Proposed Development, comprising an 11-turbine wind farm on a site located within forested and agricultural lands, and associated infrastructure, is described in detail in **EIAR Chapter 5 Project Description**. Screening for Appropriate Assessment of the Proposed Development has been undertaken separately in the Appropriate Assessment Screening Report which was submitted as part of the original planning application on 22nd December 2023.

As described in Section 1.1, this report addresses potential LSE from the implementation of the SHMP. The SHMP specifies activities for the management, creation and enhancement of habitats for Hen Harrier, Red Grouse and other key ecological features. These activities will be undertaken in the areas specified in SHMP Figures 1-20 to 1-25. The key objectives of these activities are:

- To maintain and improve habitats within the SHMP Area for Hen Harrier, such that the local conservation status of this species is maintained and improved. Integral to meeting this objective will be maintaining and increasing the quality and extent of suitable nesting, foraging and roosting habitat;
    - Where known or suspected Hen Harrier nest sites occur, the preservation of these nest sites and their surrounding core foraging habitat will take precedence over other management prescriptions; and,
- To maintain and improve habitats within the SHMP Area for Red Grouse, such that the local conservation status of this species is maintained and improved. Integral to meeting this objective will be maintaining and increasing the quality and extent of suitable nesting, foraging and sheltering habitat.

In addition to these key objectives, the SHMP activities will seek to deliver enhancements for other key ecological features identified in **EIAR Chapter 7 Biodiversity** and **EIAR Chapter 8 Ornithology**. These comprise a range of specially protected and notable species including species relevant to nearby designated sites of nature conservation importance, such as Lesser Horseshoe Bat (*Rhinolophus hipposideros*) and Merlin (*Falco columbarius*).

Habitat management, creation and enhancement measures prescribed in the SHMP include:

- Maintenance and enhancement of wet grassland through livestock grazing at NPWS guideline levels, rush management (including targeted herbicide use only) and nutrient management (i.e., avoiding chemical and organic fertiliser use);
- Maintenance and enhancement of heath through livestock grazing in accordance with NPWS guideline levels;
- Enhancement of improved agricultural grassland through a reversion programme including soil analysis, cessation of chemical and organic fertiliser application, and cessation of lime application;
- Maintenance, enhancement and creation of hedgerows and scrub;
- Rotational forestry management in accordance with felling licences;

- Supplementary feeding of livestock where appropriate (ensuring poaching is avoided);
- Sensitive timing of works in relevant habitats;
- Avoidance of burning of any vegetation or materials;
- Avoidance of spraying or broadcast herbicide application, with invasive species (e.g., rhododendron) subject to cutting and targeted herbicide treatment where necessary; and
- Avoidance of any shooting.

1.4 Methodology

1.4.1 Stages of the Appropriate Assessment process

Guidance on the Appropriate Assessment (AA) process was produced by the European Commission (EC) in 2002. This was subsequently developed into guidance specifically for Ireland by the Department of Environment, Heritage and Local Government (DEHLG) (2010). These guidance documents identify a staged approach to conducting an AA, as shown in in the figure below. Each step or stage in the assessment process precedes and provides a basis for other steps. The four stages in an AA are further described below.

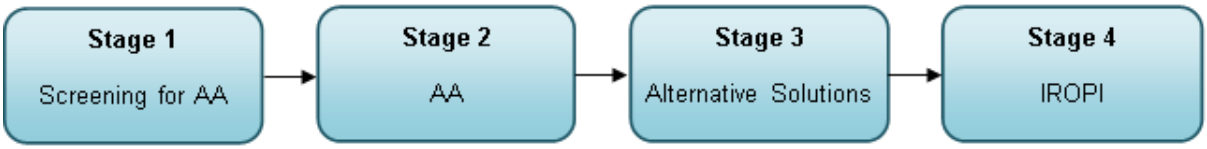

Figure 1.1: The Appropriate Assessment process (from Appropriate Assessment of plans and projects in Ireland – Guidance for Planning Authorities, DEHLG, 2010))

1.4.1.1 Stage 1 – Screening for AA

This stage examines the likely effects of a project either alone or in combination with other projects upon any European Site and considers whether it can be objectively concluded that these effects will be significant.

The threshold for an LSE is treated in the screening exercise as being above a de minimis level. The opinion of the Advocate General in CJEU case C-258/11 outlines:

- *"the requirement that the effect in question be 'significant' exists in order to lay down a de minimis threshold. Plans or projects that have no appreciable effect on a European site are thereby excluded. If all plans or projects capable of having any effect whatsoever on the site were to be caught by Article 6(3), activities on or near the site would risk being impossible by reason of legislative overkill"*.

As such, 'relevant' European Sites in this report are those within the potential Zone of Influence (ZoI) of activities associated with the SHMP (see Section 1.4.2), where impact pathways to European Sites were identified through the source-pathway-receptor model (see Section 1.4.3).

Screening for AA has been undertaken in reference to relevant case law; notably *Case C-323/17 People Over Wind and Sweetman,* which established that a Screening for AA exercise cannot take account of mitigation procedures when making any assessment of

likely significant impact on a European Site. To quote the determination: "*Article 6(3) of Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora must be interpreted as meaning that, in order to determine whether it is necessary to carry out, subsequently, an appropriate assessment of the implications, for a site concerned, of a plan or project, it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site*".

1.4.1.2 Stage 2 – Appropriate Assessment

If LSE of any project cannot be screened out in Stage 1, the process moves to Stage 2. Stage Two AA is a focused and detailed examination, analysis and evaluation carried out by the Competent Authority of the implications of the plan or project, alone and in-combination with other plans and projects, on the integrity of a European Site in view of that site's conservation objectives. Case law has established that such an Appropriate Assessment, to be lawfully conducted, in summary:

i. *Must identify, in the light of the best scientific knowledge in the field, all aspects of the proposed development which can, by itself or in-combination with other plans or projects, affect the conservation objectives of the European site;*

ii. *Must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps; and*

iii. *May only include a determination that the proposed development will not adversely affect the integrity of any relevant European site where the competent authority decides (on the basis of complete, precise and definitive findings and conclusions) that no reasonable scientific doubt remains as to the absence of the identified potential effects. If adverse impacts can be satisfactorily avoided or successfully mitigated at this stage, so that no reasonable doubt remains as to the absence of the identified potential effects, then the process is complete. If the assessment is negative, i.e., adverse effects on the integrity of a site cannot be excluded, then the process must proceed to stage three and, if necessary, stage four.*

1.4.1.3 Stage 3 – Alternative Solutions

Should the AA (Stage 2) determine that adverse effects upon a European Site are likely, this stage examines alternative ways of implementing the project that, where possible, avoid these adverse effects. For the avoidance of doubt, no reliance is placed on Stage 3 here.

1.4.1.4 Stage 4 – IROPI

Where no alternative solutions exist and where adverse effects remain but where imperative reasons of overriding public interest (IROPI) exist, an assessment to consider whether compensatory measures will or will not effectively offset the damage to any European Site will be necessary. European case law highlights that consideration must be given to alternatives outside the project area in carrying out the IROPI test. It is a rigorous test which projects are generally considered unlikely to pass. In any event, the Applicant does not purport to place any reliance on Stage 4.

1.4.2 Determining the zone of influence

Following consideration of the SHMP and its potential source-pathway-receptor model (i.e., based on its geographical location and potential scope for impacts), European Sites designated within the Natura 2000 network occurring within 15 km of the SHMP Area are subject to detailed consideration herein. As such, a preliminary ZoI of 15 km was adopted within this assessment. Whilst European Sites that were further than 15 km from the SHMP Area were also considered on a precautionary basis, no complete source-pathway-receptor chain for any significant effect was identified for any European Site that is further than 15 km from the SHMP Area.

The proximity of the SHMP Area to European Sites is important when identifying potential LSE. A conservative 15 km ZoI was adopted to ensure comprehensive assessment of potential impact pathways. When identifying potential impact pathways, the complete list of all Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of European Sites in Ireland (i.e., potential receptors) was considered, in accordance with Irish departmental guidance on AA:

> *"For projects, the distance could be much less than 15 km, and in some cases less than 100 m, 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"* (DoEHLG, 2010, p. 32).

Following the guidance set out by the National Roads Authority (NRA) (2009) and the Office of the Planning Regulator (2021), the SHMP has been evaluated based on an identified ZoI with regards to the potential source-pathway-receptor model for the SHMP. The likely ZoI for mobile species (e.g., birds, mammals, fish) and static species and habitats (e.g., caves, woodlands, flora) is considered differently. Mobile species have a 'range' outside of the designated sites for which they are QIs and SCIs. The range of mobile QI/SCI species varies considerably, from several metres (e.g., in the case of whorl snails *Vertigo* spp.), to hundreds of kilometres (in the case of migratory wetland birds). Whilst static species and habitats are generally considered to have ZoIs in close proximity to a development, they can be significantly affected at considerable distances from an effect source; for example, where an aquatic QI habitat or species is located many kilometres downstream from a pollution source.

Hydrological linkages between developments and statutory designated sites (and their QIs/SCIs) can occur over significant distances; however, any effect will be site-specific depending on the receiving aquatic environment and nature of the potential impact. A reasonable worst-case ZoI for water pollution from a development is considered to be the hydrological pathway from the development until it reaches the first lenthic water body (e.g., lake) or transitional water body (e.g., estuary), as the depositional nature of these waterbodies would limit the transport capacity of any potential influences from the development to downstream designated sites.

1.4.3 Source-pathway-receptor model

The source-pathway-receptor model is a standard tool used in environmental assessment. For an effect to be likely, all three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism results in no likelihood for the effect to occur. The source-pathway-receptor model was used to identify

a list of European Sites, and their QIs/SCIs, with potential links to European Sites. These are termed as 'relevant' European Sites/QIs/SCIs throughout this report.

Within the source-pathway-receptor model, through which the likely effects of the SHMP on European Sites have been appraised:

- A 'source' is defined as the individual element of the plan or project that has the potential to impact on a European Site, its qualifying features and its Conservation Objectives;
- A 'pathway' is defined as the means or route by which a source can affect the ecological receptor; and
- A 'receptor' is defined as the QIs and SCIs for which Conservation Objectives have been defined for the European Sites being screened.

1.5 Relevant European Sites

Relevant European Sites of nature conservation importance, including SPAs and SACs, are summarised in Table 1.1 below.

A precautionary approach was adopted when identifying relevant European Sites, assessing all European Sites within a 15 km radius of the SHMP Area as well as more distant sites where potential hydrological linkage exists (OPR, 2021).

As presented in Table 1.1 below, there are ten Special Areas of Conservation (SAC) and three Special Protection Areas (SPA) within 15 km of the SHMP Area. The locations of these European Sites are shown in Figure 1.2 below.

The SHMP Area does not overlap with any European Sites. The nearest SAC, Danes Hole, Poulnalecka SAC, is located approximately 2.2km from the SHMP Area at its nearest point. The nearest SPA, River Shannon and River Fergus Estuaries SPA, is located approximately 8.5km from the SHMP Area at its nearest point.

The QIs and SCIs for each European Site identified within the ZoI of the SHMP are presented in Table 1.2 below.

Table 1.1: Summary of European Sites within 15 km of the SHMP area

No.	European Site	Approximate distance from the SHMP Area	Hydrological connectivity (yes/no)
1	Danes Hole, Poulnalecka SAC (000030)	2.2 km	No
2	Slieve Bernagh Bog SAC (002312)	3.2 km	No
3	Glenomra Wood SAC (001013)	4.4 km	No
4	Ratty River Cave SAC (002316)	5.4 km	No
5	Lower River Shannon SAC (002165)	5.6 km	Yes. SAC is located 16.1 km downstream of SHMP area.
6	Kilkishen House SAC (002319)	5.8 km	No

No.	European Site	Approximate distance from the SHMP Area	Hydrological connectivity (yes/no)
7	River Shannon and River Fergus Estuaries SPA (004077)	8.5 km	Yes. SPA is located 24.6 km downstream of SHMP area.
8	Slieve Aughty Mountains SPA (004168)	10.8 km	No
9	Lough Derg (Shannon) SPA (004058)	12 km	No
10	Poulnagordon Cave (Quin) SAC (000064)	12.2 km	No
11	Newgrove House SAC (002157)	13.9 km	No
12	Lough Gash Turlough SAC (000051)	14 km	No
13	Old Domestic Building (Keevagh) SAC (002010)	15 km	No

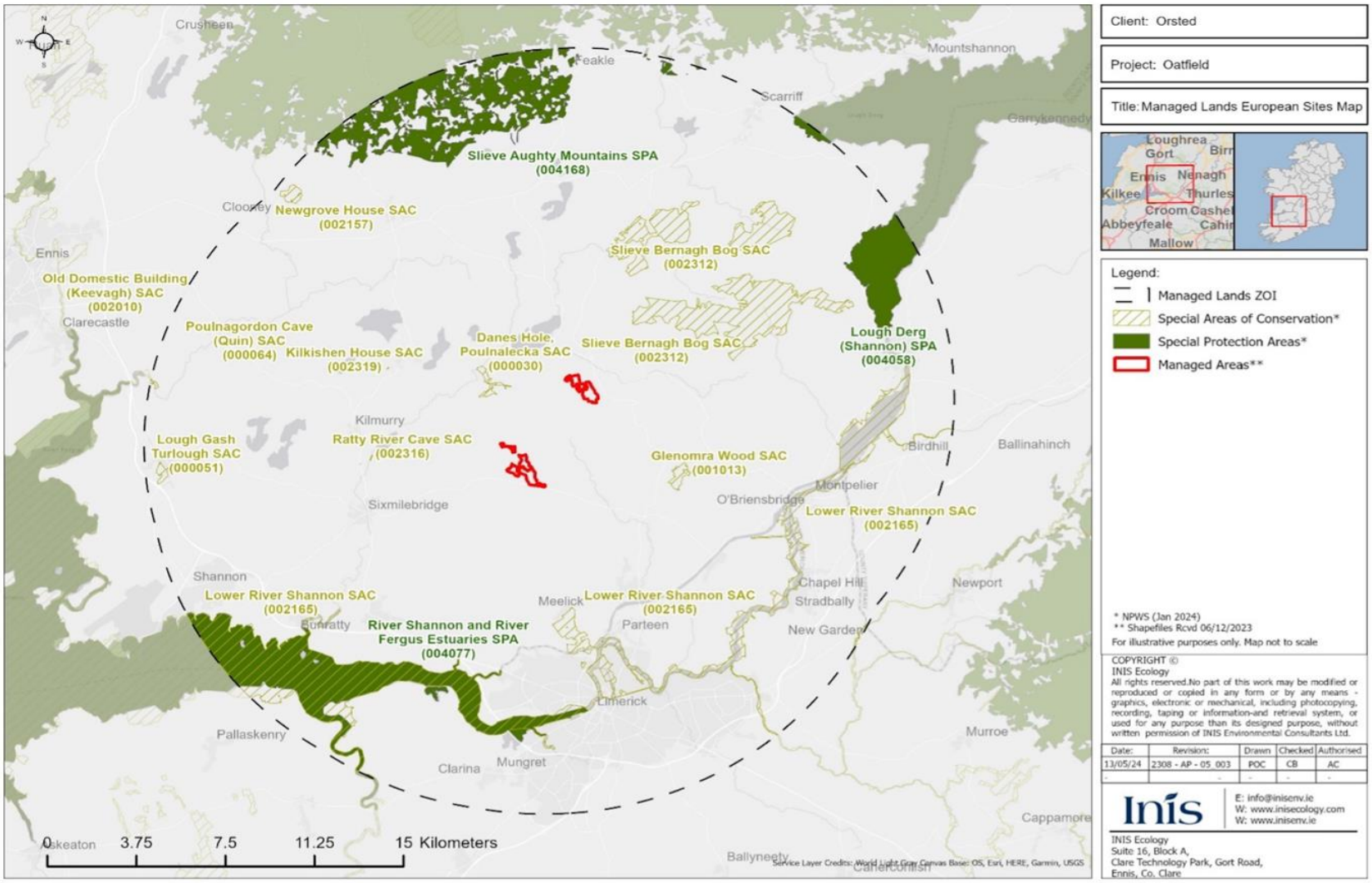

Figure 1.2: European Sites within 15 km of the SHMP area

Table 1.2: Qualifying interests of European Sites within 15 km of the SHMP area*

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
Danes Hole, Poulnalecka SAC [000030]	Caves not open to the public [8310] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	This site consists of a small fossil cave in the banks of the Ahaclare River situated within a wood c. 4 km west of Broadford, Co. Clare. It is a winter hibernation site and a mating site for Lesser Horseshoe Bat. A nearby summer roost and commuting routes used by Lesser Horseshoe Bat are also included.
Glenomra Wood SAC [001013]	Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0]	Glenomra Wood is a deciduous woodland located in south-east Co. Clare, c. 10 km north of Limerick city. The dominant tree in Glenomra Wood is Downy Birch (*Betula pubescens*), which attains a height of about 20m in places. This is mixed with Sessile Oak (*Quercus petraea*), Ash (*Fraxinus excelsior*) and Beech (*Fagus sylvatica*) throughout. Holly (*Ilex aquifolium*) is abundant and is the main understorey species. Hazel (*Corylus avellana*), regenerating Birch, Gorse (*Ulex europaeus*) and Bramble (*Rubus fruticosus agg.*) are other understorey species. Willow (*Salix spp.*) occurs in the wetter areas. This site supports mammal and amphibian species of national biodiversity importance.
Slieve Bernagh Bog SAC [002312]	Northern Atlantic wet heaths with *Erica tetralix* [4010] European dry heaths [4030] Blanket bogs (* if active bog) [7130]	Slieve Bernagh Bog is situated to the west of Lough Derg, in the south-east of Co. Clare. The site comprises the Slieve Bernagh mountain range, with the highest peaks at Moylussa (532 m) and Cragnamurragh (526 m), and the surrounding peatlands that flank its northern slopes. Several typical bird species of open moorland have been recorded at this site. These include Skylark (*Alauda arvensis*), Meadow Pipit (*Anthus pratensis*), Red Grouse, Wheatear (*Oenanthe oenanthe*) and Raven (Co*rvus corax*). At

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
		least two pairs of Hen Harrier are known to occur within the Slieve Bernagh to Keeper Hill region, and birds use the cSAC for foraging habitat.
Ratty River Cave SAC [002316]	Caves not open to the public [8310] *Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	This site lies c. 2.5 km north of Sixmilebridge in Co. Clare. It consists of a cave supporting an important winter roost and a breeding site of the Lesser Horseshoe Bat. 187 Lesser Horseshoe Bats were recorded in winter 2001, making it a site of international importance. A stretch of river and the bankside vegetation are included in the site as these are used by commuting Lesser Horseshoe Bats. A derelict cottage situated nearby is also included as it contains a Lesser Horseshoe Bat maternity roost, with a total of 65 recorded here in July 1998. Neither roost is subject to significant disturbance.
Lower River Shannon SAC [002165]	Sandbanks which are slightly covered by sea water all the time [1110] Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Coastal lagoons [1150]* Large shallow inlets and bays [1160] Reefs [1170] Perennial vegetation of stony banks [1220] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*) [1330] Mediterranean salt meadows (*Juncetalia maritimi*) [1410]	This very large site stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/ Kerry Head for c. 120 km. The site encompasses the Shannon, Feale, Mulkear and Fergus estuaries, the freshwater lower reaches of the River Shannon (between Killaloe and Limerick), the freshwater stretches of much of the Feale and Mulkear catchments, and the marine area between Loop Head and Kerry Head. Rivers within the sub-catchment of the Feale include the Galey, Smearlagh, Oolagh, Allaughaun, Owveg, Clydagh, Caher, Breanagh and Glenacarney. Rivers within the sub-catchment of the Mulkear include the Killeenagarriff, Annagh, Newport, Dead River, Bilboa, Glashacloonaraveela, Gortnageragh and Cahernahallia.

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
	Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caeruleae*) [6410] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae*) [91E0]* *Margaritifera margaritifera* (Freshwater Pearl Mussel) [1029] *Petromyzon marinus* (Sea Lamprey) [1095] *Lampetra planeri* (Brook Lamprey) [1096] *Lampetra fluviatilis* (River Lamprey) [1099] *Salmo salar* (Salmon) [1106] *Tursiops truncates* (Common Bottlenose Dolphin) [1349] *Lutra lutra* (Otter) [1355]	
Kilkishen House SAC [002319]	*Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	Kilkishen House is an 18th century, two-storey over basement mansion situated c. 7km north of Sixmilebridge in Co. Clare. It contains an important winter roost of the Lesser Horseshoe Bat. At Kilkishen House SAC, 78 Lesser Horseshoe Bats were counted in November 2001, making it a site of international importance. Most of these were hibernating in the basement, but some were also present in the attic. The building also contains a colony of Natterers' Bats (*Myotis nattereri*) and acts as a summer roost for a smaller number of Lesser Horseshoe Bats (19 were counted emerging from the building in June 1999). The exact foraging

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
		areas used by the bats are yet to be established, but areas of woodland and wetland nearby provide foraging suitable habitat.
River Shannon and River Fergus Estuaries SPA [004077]	Cormorant (*Phalacrocorax carbo*) [A017] Whooper Swan (*Cygnus cygnus*) [A038] Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] Shelduck (*Tadorna tadorna*) [A048] Wigeon (*Anas penelope*) [A050] Teal (*Anas crecca*) [A052] Pintail (*Anas acuta*) [A054] Shoveler (*Anas clypeata*) [A056] Scaup (*Aythya marila*) [A062] Ringed Plover (*Charadrius hiaticula*) [A137] Golden Plover (*Pluvialis apricaria*) [A140] Grey Plover (*Pluvialis squatarola*) [A141] Lapwing (*Vanellus vanellus*) [A142] Knot (*Calidris canutus*) [A143] Dunlin (*Calidris alpina*) [A149] Black-tailed Godwit (*Limosa limosa*) [A156] Bar-tailed Godwit (*Limosa lapponica*) [A157] Curlew (*Numenius arquata*) [A160] Redshank (*Tringa totanus*) [A162] Greenshank (*Tringa nebularia*) [A164]	The estuaries of the River Shannon and River Fergus form the largest estuarine complex in Ireland. The site comprises the entire estuarine habitat from Limerick City westwards as far as Doonaha in Co. Clare and Dooneen Point in Co. Kerry. The site has vast expanses of intertidal flats which contain a diverse macroinvertebrate community, e.g., *Macoma-Scrobicularia-Nereis*, which provides a rich food resource for wintering birds. Salt marsh vegetation frequently fringes the mudflats and provides important high tide roost areas for wintering birds. Elsewhere the shoreline comprises stony or shingle beaches. The site is the most important coastal wetland site in Ireland and regularly supports in excess of 50,000 wintering waterfowl (57,133 – five-year mean for the period 1995/96 to 1999/2000), making it of international importance. The site has internationally important populations of Light-bellied Brent Goose (494), Dunlin (15,131), Black-tailed Godwit (2,035) and Redshank (2,645). A further 17 species have populations of national importance: Cormorant (245), Whooper Swan (118), Shelduck (1,025), Wigeon (3,761), Teal (2,260), Pintail (62), Shoveler (107), Scaup (102), Ringed Plover (223), Golden Plover (5,664), Grey Plover (558), Lapwing (15,126), Knot (2,015), Bar-tailed Godwit (460), Curlew (2,396), Greenshank (61) and Black-headed Gull (2,681) (figures are five-year mean peak counts for the period 1995/96 to 1999/2000). The site is among the most important in the country for several of these species, notably Dunlin (13% of the national total), Lapwing (6% of the national total) and Redshank (9% of the national total).

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
	Black-headed Gull (*Chroicocephalus ridibundus*) [A179] Wetland and Waterbirds [A999]	
Slieve Aughty Mountains SPA [004168]	Hen Harrier (*Circus cyaneus*) [A082] Merlin (*Falco columbarius*) [A098]	The Slieve Aughty Mountains SPA is a very large site that extends southwards from just south of Lough Rea, County Galway to Scariff in County Clare. The site rises to a maximum 400m at Maghera west of Lough Graney. The site includes many small and medium-sized lakes, notably Lough Graney and Lough Atorick. Several important rivers originate in the site, including the Owendalulleegh and Graney. Lough Derg is immediately to the south-east. The site is nationally important for its populations of Hen Harrier and Merlin, and supports an array of other upland breeding bird species.
Lough Derg (Shannon) SPA [004058]	Cormorant (*Phalacrocorax carbo*) [A017] Tufted Duck (*Aythya fuligula*) [A061] Goldeneye (*Bucephala clangula*) [A067] Common Tern (*Sterna hirundo*) [A193] Wetland and Waterbirds [A999]	Lough Derg lies within counties Tipperary, Galway and Clare and is the largest of the River Shannon Lakes, being some 40 km long. Its maximum breadth across the Scarriff Bay -Youghal Bay transect is 13km but for most of its length it is less than 5km 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 25m. Lough Derg (Shannon) SPA is of high ornithological importance as it supports nationally important breeding populations of Cormorant and Common Tern. In winter, it supports nationally important populations of Tufted Duck and Goldeneye, as well as a range of other species including Whooper Swan. The presence of Whooper Swan, Greenland White-fronted Goose, Hen Harrier and Common Tern are of particular note as these are listed on Annex I of the E.U. Birds Directive.
Poulnagordon Cave (Quin) SAC [000064]	Caves not open to the public [8310]	This site is a natural limestone cave situated in a field south of Quin, Co. Clare. The cave is used as a hibernation site by Lesser Horseshoe Bat. The number

European Site Name and Code	Qualifying Interest /Special Conservation Interest and Code (*denotes a priority habitat)	Summary Description (from Site Synopsis)
	Rhinolophus hipposideros (Lesser Horseshoe Bat) [1303]	of Lesser Horseshoe Bats hibernating here varies from over 50 to less than 20. As over 50 have been recorded, the site is of international importance. This site is also important as it is at the eastern limit of the species' distribution in Ireland.
Newgrove House SAC [002157]	*Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	This site, situated near Tulla, Co. Clare, consists of the remains of a former mansion called Newgrove House, as well as some of the surrounding countryside. It is used as a hibernating site by Lesser Horseshoe Bat. In February 1996, more than 150 Lesser Horseshoe Bats were recorded at this site, making it a site of international importance.
Lough Gash Turlough SAC [000051]	Turloughs [3180]* Rivers with muddy banks with *Chenopodion p.p.* and *Bidention p.p.* vegetation [3270]	Lough Gash Turlough lies in the low landscape west of Newmarket-on-Fergus, Co. Clare. The turlough has a very flat basin and is overlooked by houses to the east and pasture to the west. The shore of the turlough rises as a stony slope on the west side, where outcropping rocks are visible. Water rises mainly from the rocks at the southern end, but there is overground flow also. One stream discharges from the town's sewage works. The annual flora found at the site is highly distinctive and well-developed; there are only fragments of such vegetation at other turloughs. The presence of an abundance of the rare Northern Yellow-cress (*Rorippa islandica*) and the protected Orange Foxtail (*Alopecurus aequalis*) (at its only Clare site) is notable.
Old Domestic Building (Keevagh) SAC [002010]	*Rhinolophus hipposideros* (Lesser Horseshoe Bat) [1303]	This site consists of a derelict, two-storey dwelling near the village of Quin, Co. Clare. It is a breeding site for Lesser Horseshoe Bat. There are mature trees and extensive hedgerows around the site which provide ideal foraging habitat for the bats. The surrounding habitat also serves as a corridor for the bats between the summer roost and hibernation site(s).

** Data Source last accessed online www.npws.ie on 13/11/2023*

SAC sites within the ZoI of the SHMP list Lesser Horseshoe Bat and its corresponding roosting and foraging habitats. As such, assessment of effects on these SACs must take into consideration potential effects on qualifying Lesser Horseshoe Bat populations using land within and in close proximity to the SHMP, outside of the SAC boundaries. According to best practice guidance provided in the Lesser Horseshoe Bat Species Action Plan 2022-2026 (NPWS & VWT, 2022), based on the known foraging ranges of this species, the presence of suitable commuting and foraging habitat within a radius of at least 2.5km from the roost is important to the integrity of the roost. In addition, linear landscape features should preferably be retained within a 5km radius of roosts with 20 or more Lesser Horseshoe Bats. As such, any activities with the potential to affect Lesser Horseshoe Bat commuting habitat within 5km of a known important roost should be subject to detailed consideration of potential effects on the integrity of the roost.

1.5.1 Conservation objectives

The standard conservation objective for all SACs and SPAs in Ireland is "*to maintain or restore the favourable conservation condition of the qualifying interests for which the SAC/SPA has been selected*". In addition, the Department of Culture, Heritage and the Gaeltacht has produced detailed conservation objectives for the sites listed in Table 1.2. These can be viewed on the NPWS website[1].

In a generic sense, 'favourable conservation status' of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable.

Favourable conservation status of species is typically achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

1.6 Ecological baseline

The SHMP specifies habitat management, creation and enhancement measures in three broad areas covering a combined c.174ha including approximately 14.5km of linear habitats. The SHMP Area was selected through detailed consultation between experienced INIS ecologists and ornithologists and potential landowners, and based on local knowledge and professional experience of delivering habitat management, creation and enhancement for Hen Harrier and other relevant species (further relevant experience is provided in the SHMP). Detailed habitat surveys undertaken by a suitably experienced INIS habitat surveyor in accordance with best practice guidance (Fossitt, 2000; Smith *et*

[1] http://www.npws.ie/protected-sites

al., 2010) identified the SHMP Area as comprising varied habitats including improved agricultural grassland (28%), wet grassland (29%), scrub (12%), and mixed wet grassland and scrub (12%). The extents and distributions of these habitats are specified in Table 1.3 below and in SHMP Figures 1-22 to 1-25.

Table 1.3: Baseline habitats within the SHMP area

Habitat type	Area (ha)	% of Study Area
BL3 Buildings and artificial surfaces	0.712	0.52
BL3/GA2 Buildings and artificial surfaces / Amenity grassland	0.048	0.03
ED2 Spoil and bare ground	0.195	0.14
ED3 Recolonising bare ground	1.386	1.00
GA1 Improved agricultural grassland	39.129	28.35
GA1/GS3 Improved agricultural grassland/Dry-humid acid grassland	0.778	0.56
GS3/WS1 Dry-humid acid grassland / Scrub	1.011	0.73
GS4 Wet grassland	40.057	29.02
GS4/WS1 Wet grassland / Scrub	17.226	12.48
HH1 Dry heath	5.287	3.83
HH3 Wet heath	0.967	0.70
HH3/WD4 Wet heath / Conifer plantation	3.485	2.52
HH3/WS1 Wet heath / Scrub	0.734	0.53
WD1 Mixed broadleaved woodland	0.353	0.26
WD2 Mixed broadleaved/conifer woodland	0.233	0.17
WD4 Conifer plantation	8.683	6.29
WN4 Wet pedunculate oak-ash woodland	0.795	0.58
WN6 Wet willow-alder-ash woodland	0.854	0.62
WS1 Scrub	16.091	11.66
Habitat type	**Length (m)**	
FW1 Eroding/upland rivers	1076	
FW4 Drainage ditches	825	
WL1 Hedgerows	3355	
WL1/WL2 Hedgerows / Treelines	469	
WL2 Treelines	3633	

1.7 Identification of potential impacts

Potential direct and indirect impacts on European Sites in relation to the habitat management, creation and enhancement activities prescribed in the SHMP are described below. These impact sources and pathways were evaluated for connectivity to the

European Sites within the ZoI of the SHMP and were subsequently considered during the screening exercise undertaken in Section 1.8.

The activities specified in the SHMP have been prescribed specifically to benefit biodiversity features. In particular, these activities focus on increasing the extent and quality of available habitat for Hen Harrier (an SCI for Slieve Aughty Mountains SPA) and Red Grouse. The SHMP activities will also increase the extent and quality of available habitat for a range of species including those relevant to the European Sites within the likely ZoI of the SHMP; notably Lesser Horseshoe Bat, Merlin and Whooper Swan. As such, the SHMP is expected to have a significant positive effect on these species, and could therefore have a positive effect on nearby European Sites for which these species represent qualifying features. Full details of measures designed to benefit these species are provided in the SHMP.

1.7.1 Potential impacts on SAC Sites

1.7.1.1 Impact sources

As recognised above and described in Section 1.3, the SHMP activities comprise measures for the improvement of habitats in the SHMP Area for biodiversity features, and have therefore been devised taking into consideration the avoidance and minimisation of impacts on habitats and species. SHMP activities assessed for their potential to affect SAC Sites include vegetation removal, livestock grazing, vehicle and machinery movements, herbicide application, organic fertiliser application, maintenance works, noise and presence of humans, waste generation, and vegetation planting.

1.7.1.2 Connectivity pathways to European Sites

Relevant connectivity pathways through which these impact sources could affect SAC Sites include: Physical (i.e., direct) contact; surface water and groundwater flow paths; movement of soils, vehicles, machinery and personnel; air; vibration; and visibility.

1.7.1.3 Description of the potential effects

SAC Effect A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change at works locations: Direct effects to QI habitats or plant species due to physical land cover change within an SAC can only occur if SHMP activities occur within the boundary of the SAC and overlap with the extents of the QI habitats or plant species.

SAC Effect B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change at SHMP locations: Indirect effects to QI habitats or plant species as a result of physical land cover change could occur where SHMP activities overlap with the extents of QI habitats or plant species which occur ex-situ of an SAC.

SAC Effect C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species: Indirect effects to QI habitats or plant species due to reduced water quality have the potential to occur within downstream catchments of the SHMP Area. Invasive species can also potentially be

spread downstream or upstream within a catchment, and via machinery, vehicle and personnel movements.

SAC Effect D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey or host species, within or ex-situ of an SAC due to physical landcover change or damage or via reductions in water quality or the spread of invasive species: Habitat loss or degradation of suitable (positively selected) habitat for QI species within or ex-situ of an SAC may reduce species populations within an SAC through reduced breeding success or reductions in supporting source populations outside the SAC. Habitat loss or degradation may also reduce the availability of prey items or host fish species for QI species which in-turn can negatively affect breeding success/survival. The potential for habitat effects would be limited to the SHMP Area, whereas habitat effects via reductions in water quality have the potential to occur further from the SHMP Area where hydrological connectivity exists. Habitat effects via the spread of invasive species have the potential to occur either downstream or upstream within a catchment, and via machinery, vehicle and personnel movements.

SAC Effect E: Mortality, disturbance or displacement of QI species or their prey or host species within or ex-situ of an SAC: Potential for mortality to occur within an SAC where QI species or their prey or host species may be present within the SAC boundary and exposed to potential mortality through activities including vegetation removal and vehicle and machinery movements. QI species present within an SAC near SHMP activities would potentially be disturbed and displaced (e.g., due to vegetation removal, noise, vibration or personnel movements). Disturbance and displacement of prey or host species for QI species (e.g., fish) can also reduce their abundance and affect their distributions, which in-turn can negatively affect the survival and breeding success of the QI species.

1.7.2 Potential impacts on SPA Sites

1.7.2.1 Impact sources

As recognised in Section 1.7 and described in Section 1.3, the SHMP activities comprise measures for the improvement of habitats in the SHMP Area for biodiversity features, and have therefore been devised taking into consideration the avoidance and minimisation of impacts on habitats and species. SHMP activities assessed for their potential to affect SPA Sites include vegetation removal, livestock grazing, vehicle and machinery movements, herbicide application, organic fertiliser application, maintenance works, noise and presence of humans, waste generation, and vegetation planting.

1.7.2.2 Connectivity pathways to European Sites

Relevant connectivity pathways through which these impact sources could affect SPA Sites include: Physical (i.e., direct) contact (regarding the loss and fragmentation of habitats); surface water and groundwater flow paths; movement of soils, vehicles, machinery and personnel; air; vibration; and visibility.

1.7.2.3 Description of potential effects

SPA Effect A: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for SCI species or their prey species, within or ex-situ of an

SPA due to physical landcover change: Habitat loss or degradation of suitable (positively selected) nesting or foraging habitat for SCI species within or ex-situ of an SPA may reduce species numbers within an SPA through reduced breeding success or reductions in supporting source populations outside the SPA. Habitat loss or degradation may also reduce the availability of prey species, causing secondary effects to foraging SCIs, where these prey species occur within any positively selected foraging habitat of the SCI. The potential for habitat effects as a result of physical landcover change is limited to the area within which SHMP activities will occur.

SPA Effect B: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for SCI species or their prey species, within or ex-situ of an SPA due to reductions in water quality or the spread of invasive species: The potential for habitat effects as a result of reductions in water quality has the potential to occur where hydrological connectivity with the SHMP Area exists. Habitat effects via the spread of invasive species could occur either downstream or upstream within a catchment, and via machinery, vehicle and personnel movements.

SPA Effect C: Disturbance/displacement or mortality of SCI species within an SPA: Direct effects via disturbance or displacement have the potential to occur within an SPA where SCI bird species may be present in close proximity to SHMP activities. Direct effects via mortality have the potential to occur within an SPA where SCI bird species may be present within the SPA boundary and exposed to potential mortality through contact with moving machinery and vehicles or through vegetation removal activities.

SPA Effect D: Disturbance/displacement or mortality of SCI species ex-situ of an SPA: Disturbance or displacement effects to SCI species (such as when foraging/migrating) outside SPAs may indirectly affect breeding success or general survival rates for these species once within SPA sites. Indirect effects via mortality of SCI species outside of an SPA could occur where SHMP activities occur in suitable nesting, roosting or foraging habitat.

SPA Effect E: Disturbance/displacement or mortality of SCI prey species within or ex-situ of an SPA: Mortality, disturbance or displacement of prey species for SCI species may reduce prey availability for SCI species, to the detriment of SCI species populations. Disturbance/displacement or mortality has the potential to occur through SHMP activities such as vegetation removal and machinery and vehicle movements, whilst reduced abundance of prey species for SCI species could potentially occur due to habitat management activities prescribed in the SHMP.

1.8 Screening of likely significant effects

1.8.1 Screening process

The Screening process examines the likely effects of the SHMP as described, both alone and (in Section 1.9) in combination with other projects or plans, on a European Site and considers whether it can be objectively concluded that these effects will not be significant. The likely effects of the SHMP on European Sites have been appraised using a source-pathway-receptor model (as detailed in Section 1.4.3).

1.8.2 Initial screening of SAC Sites

Initial screening of SAC Sites in relation to the SHMP is presented in Table 1.4 below, based on the qualifying features of these sites described in Table 1.2.

As indicated below, based on the absence of potential impact pathways between the SHMP activities and designated features of relevant SACs, all SACs have been screened out for further assessment. As such, progressing to the next assessment stage is not required for any SACs.

Table 1.4: Initial screening of SAC Sites

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.** **SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.** **SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.** **SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.** **SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.**
Danes Hole, Poulnalecka SAC [000030]	A: Danes Hole, Poulnalecka SAC is located c.2.2km from the SHMP Area at its nearest point. Considering the location and scope of the SHMP, there is no potential for any loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats (specifically Caves not open to the public [8130] and Old sessile oak woods [91A0]) within the SAC due to physical landcover change. **There is no potential for LSE.** B: Considering the location and scope of the SHMP, which will not involve any removal of established oak woodland or relevant plant species, there is no potential for any loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats (specifically Caves not open to the public [8130] and Old sessile oak woods 91A0]) occurring ex-situ the SAC due to physical landcover change. **There is no potential for LSE.** C: Considering the distance between the SHMP activities and Danes Hole, Poulnalecka SAC, the extent and scope of the SHMP, and the QI habitats relevant to this SAC (specifically Caves not open to the public [8130] and Old sessile oak woods [91A0]), there is no potential for significant loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of the SAC due to reductions in water quality or the spread of invasive species. The SHMP includes measures to control deleterious invasive plant species which would reduce the likelihood of these species spreading into habitats integral to the SAC compared with the likelihood currently (i.e., pre-SHMP), to the benefit of the SAC. Therefore, **there is no potential for LSE.**

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.**
	SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.
	SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.
	SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.
	SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.
	D: Danes Hole, Poulnalecka SAC is located c.2.2 km from the SHMP Area at its nearest point. This is outside of the core foraging habitat for Lesser Horseshoe Bats in winter, which is considered to be within 1.2km of the hibernation roost[2]. According to best practice guidance provided in the Lesser Horseshoe Bat Species Action Plan 2022-2026 (NPWS & VWT, 2022), based on the known foraging ranges of this species, the presence of suitable commuting and foraging habitat within a radius of at least 2.5km of summer roosts is important to the integrity of the roost. In addition, linear landscape features should preferably be retained within a 5km radius of roosts with 20 or more Lesser Horseshoe Bats. Therefore, habitats affected by the SHMP (notably woodland, hedgerows, grassland scrub) could be of value to foraging and commuting Lesser Horseshoe Bats belonging to the summer roost of Danes Hole, Poulnalecka SAC, and (to a lesser extent, considering the distance between the SHMP Area and the SAC) to foraging and commuting Lesser Horseshoe Bats belonging to the hibernation roost of the SAC. As described in Section 1.3 and the SHMP, the SHMP activities involve the management, creation and enhancement of habitats within the SHMP Area for key ecological features, focusing on increasing the extent and quality of hedgerows and scrub, woodland and grassland. The measures prescribed for these habitats are sympathetic to the summer and winter requirements of foraging and commuting Lesser Horseshoe Bats, as detailed in the Lesser Horseshoe Bat Species Action Plan 2022-2026. The SHMP includes measures that would specifically address subjects discussed in the Species Action Plan, such as invertebrate availability, hedgerow extent and quality, and winter grazed pasture availability. The measures prescribed in the SHMP would therefore benefit Lesser Horseshoe Bats, increasing the extent and quality of suitable foraging and commuting habitat within the foraging area of Lesser Horseshoe Bats using the summer roost of Danes Hole, Poulnalecka SAC, and increasing the extent and quality of suitable foraging and commuting habitat potentially used by Lesser Horseshoe Bats using the hibernation roost of Danes Hole, Poulnalecka SAC. The SHMP includes measures to control deleterious invasive plant species which will reduce the likelihood of these species spreading in habitats integral

[2] Back from the Brink: Species Information Guide – Lesser Horseshoe Bat. [Available at Species-info-sheet-forlesser-horseshoe-bat-FINAL.pdf (bats.org.uk) – accessed 15/12/2023].

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.** **SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.** **SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.** **SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.** **SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.**
	to the SAC compared with baseline (i.e., pre-SHMP) levels. **Therefore, there is no potential for LSE.** E: As described for SAC Impact D (above), the SHMP Area includes land within the foraging and commuting area of Lesser Horseshoe Bats using the SAC summer roost, and includes land within the potential foraging and commuting area of Lesser Horseshoe Bats using the SAC hibernation roost. The SHMP will not involve any works to any potential Lesser Horseshoe Bat Roosts, and is c. 2.2km from the SAC. There is therefore no potential for mortality, disturbance or displacement of roosting Lesser Horseshoe Bats associated with Danes Hole, Poulnalecka SAC. Considering the location and scope of the SHMP, there is no potential for significant disturbance of foraging and commuting Lesser Horseshoe Bats associated with Danes Hole, Poulnalecka SAC whilst SHMP activities are being undertaken, and (as described for SAC Impact D above), the SHMP is expected to increase the availability of prey species for Lesser Horseshoe Bat (e.g., night-flying Diptera and Lepidoptera, and wintering insects associated with cow dung), which would benefit this species. Whilst the SHMP activities could result in mortality and displacement of prey species (e.g., through vegetation removal), this would be insignificant in the context of the foraging resources available to these Lesser Horseshoe Bats in summer and winter, and would be negligible in the context of the increased invertebrate prey availability resulting from the habitat management, creation and enhancement measures specified in the SHMP. **Therefore, there is no potential for LSE.**
Glenomra Wood SAC [001013]	A: Glenomra Wood SAC is located c.4.4km from the SHMP Area at its nearest point. Considering the location and scope of the SHMP, there is no potential for any loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats (specifically Old sessile oak woods [91A0]) within the SAC due to physical landcover change. **There is no potential for LSE.** B: Glenomra Wood SAC is located c.4.4km from the SHMP Area at its nearest point. No broadleaved woodland will be removed during the implementation of the SHMP, with woodlands within the SHMP subject to measures to enhance their biodiversity value and connectivity. As such, there is no potential for any loss, fragmentation or degradation, or loss/reduction in connectivity, of QI

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.** **SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.** **SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.** **SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.** **SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.**
	habitats (specifically Old sessile oak woods 91A0]) occurring ex-situ the SAC due to physical landcover change. **There is no potential for LSE.** C: Considering the scope of the SHMP activities and the distance from the SAC, there will be no significant reductions in the water quality of the SAC as a result of the SHMP. The SHMP includes measures to minimise fertiliser and lime application within the SHMP area compared with baseline (i.e., pre-SHMP) levels, and measures to control invasive plant species which will reduce the likelihood of these species spreading in habitats integral to the SAC compared with the baseline risk. **There is no potential for LSE.** D & E: There are no QI species for Glenomra Wood SAC. As described in relation to SAC Impact B, the SHMP will not result in the loss, fragmentation or degradation of any SAC habitat, and will not result in any significant disturbance of this habitat. As such, the SHMP is limited in its potential to affect non-qualifying species of biodiversity importance which also use the SAC. Whilst species using the SAC may also use other habitat types within and adjacent to the SHMP Area, the SHMP activities are expected to enhance these habitats for these species, and include measures which would reduce the likelihood of the spread of invasive species compared with baseline (i.e., pre-SHMP) levels. Therefore, **there is no potential for LSE.**
Lower River Shannon SAC [002165]	A: Lower River Shannon SAC is located c.5.6km from the SHMP Area. As such, there is no potential for effects through habitat/plant species loss/fragmentation or degradation due to physical landcover change within the SAC. **There is no potential for LSE.** B: As described in Section 1.3 and the SHMP, the SHMP specifies measures for the management, creation and enhancement of habitats for key ecological features, and will therefore increase the extent, quality and connectivity of habitats within the SHMP Area. There will be no removal or degradation of any habitats associated with the SAC. Consequently, there will be no loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of the SAC due to physical landcover change. **There is no potential for LSE.** C: Considering the scope of the SHMP activities and the distance from the SAC, there will be no significant reductions in the water quality of the SAC as a result

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.** **SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.** **SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.** **SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.** **SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.**
	of the SHMP. The extent of vehicle and machinery movements during SHMP activities will be relatively limited and distant from the SAC. Whilst the SHMP includes fertilising operations, these will be undertaken in accordance with current Forest Service guidelines, and application of chemical or organic fertiliser in wet grassland (including grassland near watercourses) will be avoided. The SHMP is expected to reduce organic and fertiliser application within the SHMP Area compared with baseline (i.e., pre-SHMP) levels, with improved agricultural grassland being subject to a reversion programme (where possible) including analysis of soil samples to establish baseline nutrient levels, cessation of chemical and organic fertiliser application, and cessation of lime application. There will be no fertiliser application on slopes greater than 25^{o} to minimise run-off into watercourses. The SHMP includes measures to minimise poaching of watercourses, and no spraying or broadcast application of herbicides will be permitted within the SHMP Area, with targeted herbicide application undertaken only (to a distance of at least 5m from any watercourses). The SHMP includes measures to control deleterious invasive plant species which will reduce the likelihood of these species spreading in habitats integral to the SAC compared with baseline (i.e., pre-SHMP) levels. Considering the location and scope of the SHMP, and the measures described herein, **there is no potential for LSE.** D: As described in relation to SAC Impact B, the SHMP will not result in the loss, fragmentation or degradation of any SAC habitats including those supporting QI species and their prey/host species, and instead includes measures which may benefit these habitats. Whilst the SHMP activities include works to woodland and scrub outside of the SAC which could potentially be used by Otters for dispersal and sheltering (e.g., as den sites), potentially including Otters belonging to the SAC population, these works will be small-scale and undertaken in accordance with ecological best practice. Therefore, these works do not have the potential for significant effects on the Otter population of the SAC. The SHMP includes measures which are likely to reduce levels of nutrient input (e.g., from livestock, fertiliser and lime) and the likelihood of invasive species spread compared with baseline (i.e., pre-SHMP) levels. **Therefore, there is no potential for LSE.**

SAC Site (Receptor)	**SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change.** **SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change.** **SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species.** **SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species.** **SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.**
	E: As described in relation to SAC Impact B, the SHMP will not involve works within any watercourses or works with the potential to cause significant disturbance or displacement of QI species using aquatic habitats such as fish and invertebrate species. The SHMP includes measures which are likely to reduce levels of nutrient input (e.g., from livestock, fertiliser and lime) compared with baseline (i.e., pre-SHMP) levels. Whilst works within or adjacent to habitats potentially supporting Otter may occur within the SHMP, these works will be small-scale and undertaken in accordance with ecological best practice. Therefore, these works do not have the potential for significant effects on the Otter population of the SAC. **There is no potential for LSE.**
Ratty River Cave SAC [002316] **Kilkishen House SAC [002319]** **Poulnagordon Cave (Quin) SAC [000064]** **Newgrove House SAC [002157]** **Old Domestic Building (Keevagh) SAC [002010]**	A & B: These SAC sites are located between c. 5.4km and 15km from the SHMP Area at their nearest points. Considering this, and current best practice guidance on the movement patterns of Lesser Horseshoe Bats from their summer and hibernation roosts (see initial screening of Danes Hole, Poulnalecka SAC), there is no potential for significant effects through habitat/plant species loss/fragmentation or degradation as a result of the SHMP activities. As described in the initial screening of Danes Hole, Poulnalecka SAC, the SHMP activities involve the management, creation and enhancement of habitats within the SHMP area for key ecological features which would increase the availability and quality of foraging and commuting habitat for Lesser Horseshoe Bats, rather than causing loss, fragmentation or degradation of Lesser Horseshoe Bat commuting and foraging habitat. **Therefore, there is no potential for LSE.** C, D & E: These SAC sites are located between c. 5.4km and 15km from the SHMP area at their nearest points. Considering this, and current best practice guidance on the movement patterns of Lesser Horseshoe Bats from their summer and hibernation roosts (see Table 1.5) of Danes Hole, Poulnalecka SAC), these sites are outside of the core summer and winter foraging areas for Lesser Horseshoe Bats associated with these SACs. Considering this, and the extent and scope of the SHMP activities, there is no potential for significant loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of the SAC due to reductions in water quality or the spread of invasive species; indeed, the SHMP includes measures to control deleterious invasive plant species which would reduce the likelihood of these

SAC Site (Receptor)	SAC Impact A: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within an SAC due to physical landcover change. SAC Impact B: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species ex-situ of an SAC due to physical landcover change. SAC Impact C: Loss, fragmentation or degradation, or loss/reduction in connectivity, of QI habitats or plant species within or ex-situ of an SAC due to reductions in water quality or the spread of invasive species. SAC Impact D: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for QI species or their prey/host species, within or ex-situ of an SAC, due to physical removal or damage or via reductions in water quality or the spread of invasive species. SAC Impact E: Mortality, disturbance or displacement of QI species or their prey/host species within or ex-situ of an SAC.
	species spreading into habitats integral to the SAC. In addition, as described in the initial screening of Danes Hole, Poulnalecka SAC, the measures prescribed in the SHMP will be designed to take into account the summer and winter requirements of foraging and commuting Lesser Horseshoe Bats; notably by increasing invertebrate availability, hedgerow extent and quality, and winter grazed pasture availability. Considering the location and scope of the SHMP, there is no potential for significant disturbance of foraging and commuting Lesser Horseshoe Bats associated with these SAC sites whilst SHMP activities are being undertaken, and (as described above), the SHMP is expected to increase the availability of prey species for Lesser Horseshoe Bat (e.g., night-flying Diptera and Lepidoptera, and wintering insects associated with cow dung), which would benefit this species. Whilst the SHMP activities could result in mortality and displacement of prey species (e.g., through vegetation removal), this would be insignificant in the context of the foraging resources available to these Lesser Horseshoe Bats in summer and winter, and would be negligible in the context of the increased invertebrate prey availability resulting from the habitat management, creation and enhancement measures specified in the SHMP. **Therefore, there is no potential for LSE.**
Slieve Bernagh Bog SAC [002312] **Lough Gash Turlough SAC [000051]**	A-E: These SAC Sites are located c.3.2km and 14km from the SHMP area respectively at their nearest points. Considering these distances, and the scope of the SHMP, there is no potential for effects on QI habitats within or ex-situ of these SACs. As described in the initial screening of Glenomra Wood, the SHMP includes measures which are expected to minimise fertiliser application and the likelihood of invasive species spread compared with baseline (i.e., pre-SHMP) levels, and the SHMP will increase the quality and availability of relevant habitats and for relevant species to these SACs. **Therefore, there is no potential for LSE.**

1.8.3 Initial screening of SPA Sites

Initial screening of SPA Sites in relation to the SHMP is presented in Table 1.5 below, based on the qualifying features of these sites described in Table 1.2.

As indicated below, based on the absence of potential impact pathways between the SHMP activities and designated features of relevant SPAs, all SPAs have been screened out for further assessment. As such, progressing to the next assessment stage is not required for any SPAs.

Table 1.5: Initial screening of SPA Sites

SPA Site (Receptor)	**SPA Impact A: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for SCI species or their prey species, within or ex-situ of an SPA due to physical landcover change.** **SPA Impact B: Loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for SCI species or their prey species, within or ex-situ of an SPA due to reductions in water quality or the spread of invasive species.** **SPA Impact C: Disturbance/displacement or mortality of SCI species within an SPA.** **SPA Impact D: Disturbance/displacement or mortality of SCI species ex-situ of an SPA.** **SPA Impact E: Disturbance/displacement or mortality of SCI prey species within or ex-situ of an SPA.**
Slieve Aughty Mountains SPA [004168]	A: Slieve Aughty Mountains SPA is located c.10.8km from the SHMP Area at its nearest point. Based on Scottish Natural Heritage (SNH, 2016) best practice guidance, the core foraging range of Hen Harriers is considered to be up to 2km from the SPA, with a maximum foraging range of up to 10km. Based on this guidance, the SHMP Area is unlikely to be subject to significant foraging activity by Hen Harriers belonging to the SPA population, with activity within the SHMP Area by Hen Harriers belonging to the SPA population considered likely to comprise occasional foraging and commuting only. Based on SNH guidance, the SHMP Area is significantly outside of the breeding season foraging range of 5km for Merlin. Considering this, and the extent and scope of the SHMP activities, there is no potential for significant loss, degradation, fragmentation or reduction/loss of connectivity of suitable habitats for SCI species or their prey species, within or ex-situ of the SPA, due to physical landcover change. As described in Section 1.3 and the SHMP, the SHMP activities have been designed to specifically increase the quality, extent and connectivity of habitats within the SHMP Area for Hen Harriers and their prey species, and to benefit other key ecological features such as Merlin and Red Grouse. As such, the implementation of the SHMP will increase the quality, extent and connectivity of habitat within the SHMP Area for Hen Harrier, Merlin and other notable species also using Slieve Aughty Mountains SPA. **Therefore, there is no potential for LSE.** B: As described in the initial screening of Lower River Shannon SAC (Table 1.4), there will be no significant reductions in water quality as a result of the SHMP. The extent of vehicle and machinery movements during SHMP activities will be relatively limited and distant from Slieve Aughty Mountains SPA. Whilst the SHMP includes fertilising operations, these will be undertaken in accordance with current Forest Service guidelines, and application of chemical or organic fertiliser in wet grassland (including grassland near watercourses) will be avoided. The SHMP is expected to reduce organic and fertiliser application within the SHMP Area compared with baseline (i.e., pre-SHMP) levels, with improved agricultural grassland being subject to a reversion programme (where possible) including analysis of soil samples to establish baseline nutrient levels, cessation of chemical and organic fertiliser application, and cessation of lime application. There will be no fertiliser application on slopes greater than 25^{o} to minimise run-off. The SHMP includes measures to minimise poaching of watercourses, and no

	spraying or broadcast application of herbicides will be permitted within the SHMP Area, with targeted herbicide application undertaken only (to a distance of at least 5m from any watercourses). The SHMP includes measures to control deleterious invasive plant species which will reduce the likelihood of these species spreading in habitats integral to the SPA compared with baseline (i.e., pre-SHMP) levels. **There is no potential for LSE.** C: Slieve Aughty Mountains SPA is located c.10.8km from the SHMP Area at its nearest point. Considering this, and the scope of the SHMP activities, there is no potential for disturbance/displacement or mortality of SCI species within the SPA. **There is no potential for LSE.** D: As described in relation to SPA Impact A, considering the distance between the SPA and the SHMP Area, and the known foraging ranges of these species, there is limited potential for ex-situ disturbance and mortality impacts on Hen Harrier, Merlin and other relevant species belonging to the populations of Slieve Aughty Mountains SPA. Considering the scope for impacts during the implementation of the SHMP (e.g., from vehicle and machinery movements, or from vegetation removal), even if birds belonging to the SPA populations are present within the SHMP Area, disturbance/displacement and mortality impacts are highly unlikely. **There is no potential for LSE.** E: As described in relation to SPA Impact A, considering the distance between the SPA and the SHMP Area, and the known foraging ranges of these species, there is limited potential for ex-situ impacts on Hen Harrier, Merlin and other relevant species belonging to the populations of Slieve Aughty Mountains SPA through impacts on their prey. Whilst the SHMP activities could result in mortality and displacement of prey species (e.g., through vegetation removal), this would be insignificant in the context of the foraging resources available to these SCI bird species, and would be negligible in the context of the increased prey availability resulting from the habitat management, creation and enhancement measures resulting from the implementation of the SHMP. **Therefore, there is no potential for LSE.**
River Shannon and River Fergus Estuaries SPA [004077] **Lough Derg (Shannon) SPA [004058]**	A-E: These SPA sites are located c.8.5km and 12km from the SHMP Area, respectively at their nearest points. There is therefore no potential for impacts on SCI species, their habitats and food species within the SPAs. Based on the baseline habitats present within the SHMP Area, the SHMP Area is unlikely to be subject to significant activity by the majority of these species. When considering this and the distance between these SPAs and the SHMP Area, the potential for effects on these species that would be significant to their SCI populations for these SPAs is negligible. As described in Section 1.3 and the SHMP, the SHMP activities have been designed to specifically increase the quality, extent and connectivity of habitats within the SHMP Area for key ecological features, and grassland enhancements within the SHMP Area will increase their suitability for wintering waterbirds and breeding waders including species relevant to these SPAs. Considering this, and the limited scope for potential adverse effects on these SCI bird species as a result of the SHMP, **there is no potential for LSE.**

1.9 Potential in-combination effects

Other projects considered for potential cumulative effects with the SHMP are described in **EIAR Chapter 20 Impact Interactions and Cumulative Effects**. Cumulative effects

are defined by CIEEM (2018) as: *"Additional changes caused by a proposed development in conjunction with other developments or the combined effect of a set of developments taken* together".

As described in Section 1.8, there is no potential for LSE on any European Sites as a result of the implementation of the SHMP. Rather, the SHMP is expected to benefit QI and SCI features of the European Sites within the ZoI of the SHMP; notably Hen Harrier, as well as Lesser Horseshoe Bat, Merlin and Red Grouse. Considering the limited scope for any adverse effects from the SHMP on any European Sites, when viewed in the context of the other projects identified in **EIAR Chapter 20 Impact Interactions and Cumulative Effects**, the implementation of the SHMP is not anticipated to give rise to any significant in-combination effects on any European Sites.

1.10 Screening statement

In Section 3.2.5 of Appropriate Assessment of Plans and Projects in Ireland (NPWS, 2010), it is stated that the first stage of the AA process can have three possible conclusions:

- AA is not required - Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site;
- No potential for significant effects / AA is not required - Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed; or
- Significant effects are certain, likely or uncertain - The plan or project must either proceed to Stage 2 (AA), or be rejected.

Having considered the activities proposed within the SHMP, it is concluded that this application meets the second conclusion, because there is no potential for significant effects on any European Sites, either from the implementation of the SHMP alone or in-combination with other projects. Indeed, the implementation of the SHMP is expected to benefit QI and SCI features of the European Sites within the ZoI of the SHMP, including Hen Harrier and Lesser Horseshoe Bat.

Therefore, it is deemed, on the basis of objective scientific information, that the SHMP, individually or in combination with other projects, will not have a significant adverse effect on any European Sites. It is noted that the Competent Authority (An Bord Pleanála) will make its determination on whether an Appropriate Assessment is required for any of the European Sites described herein.

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