

Appropriate Assessment Screening Report

for proposed

Serviced Sites at Clara Road, Moate

**in accordance with the requirements of
Article 6(3) of the EU Habitats Directive**

by

CAAS Ltd

for

Westmeath County Council



October 2023

Document Control

	Author/Reviewer	Date
Prepared by	Callum O'Regan	Various dates to 26 September 2023
Reviewed by	Karen Dylan Shevlin	09 October 2023
	Paul Fingleton	06 October 2023
Issued as draft		10 October 2023
Status of this version	Final	

Table of Contents

1. Introduction.....	1
1.1. Background.....	1
1.2. Report structure.....	1
1.3. Legislative context.....	1
1.4. Overview of the Habitats Directive and Appropriate Assessment process.....	2
1.5. Approach	3
2. Description of Proposed Development	5
2.1. Receiving environment overview.....	5
2.2. The proposed development	5
3. Screening for Appropriate Assessment	9
3.1. Introduction	9
3.2. Identification of relevant European sites	10
3.3. Assessment criteria	13
3.3.1. Is the development necessary to the management of European sites?.....	13
3.4. Characterising potential significant effects	13
3.4.1. Types of potential effects.....	14
3.5. Identification of likely significant effects of the proposed development	17
3.5.1. Summary of likely significant effects	20
3.6. Screening of sites	20
3.7. Other plans and projects	29
4. Conclusion	34

List of Figures

Figure 2.1. Location of the proposed development site	6
Figure 2.2. Location of EPA rivers relative to the proposed development site	7
Figure 2.3. Plan of proposed development	8
Figure 3.1. European sites within 15km of the proposed development boundary	12

List of Tables

Table 3.1 Screening assessment of the potential effects arising from the proposed development	21
Table 3.2 Extant planning applications for proposed developments within 200 m'	31

List of Appendices

Appendix I Background information on European sites	35
Appendix II Qualifying Interests of SACs that have undergone assessment	38
Appendix III Special Conservation Interests of SPAs that have undergone assessment	42
Appendix IV Conservation Objectives	43
Appendix V Contributor details.....	44

1. Introduction

1.1. Background

CAAS has been appointed by Westmeath County Council (the competent authority) to prepare this Appropriate Assessment Screening Report (AASR) for a proposed development of Serviced Sites at Clara Road, Moate (the proposed development). AA is a procedure carried out in accordance with the requirements of Article 6(3) of Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (as amended) (hereafter referred to as the “Habitats Directive”). This AASR has been prepared to assist the competent authority in assessing whether or not the proposed development will be subject to *Stage Two* Appropriate Assessment.

1.2. Report structure

This report sets out the legislative context for the assessment process with reference to relevant guidelines and highlight the experience and qualifications of the author (See Appendix V for author qualifications). It then details the proposed development and the works associated with this which are then interrogated to identify any possible effects which may be ecologically relevant for European sites. Following this, the metrics for the assessment of ‘significance’ of these effects are explained and applied to each of the European sites with ecological connectivity to the proposed development area. This assessment is undertaken in view of the conservation objectives and known sensitivities of the qualifying interests and special conservation interests for each European site. Other plans and projects are then considered to identify any likely in-combination effects which may result in the likelihood of potential significant effects on European sites.

1.3. Legislative context

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the “favourable conservation status” of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Habitats Directive as above and Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable among them. These two designations are collectively known and referred to as European sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect such sites. Article 6(3) establishes the requirement for AA. 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).

Article 6(3) of the Habitats Directive States:

‘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. 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’.

The AA process relates to the protection of species listed in Annex I and Annex II of the Habitats Directive which form the Natura 2000 network (Article 3(1)). Species breeding and resting places of species listed in Annex IV of the Habitats Directive are nationally protected in Ireland as per Articles 15 and 16 of the Habitats Directive. The actual species listed in Annex IV do not form part of the Natura 2000 network as they are not mentioned in Article 3(1) of the Directive which defines the Natura 2000 network.

Article 3(1) of the Habitats Directive States:

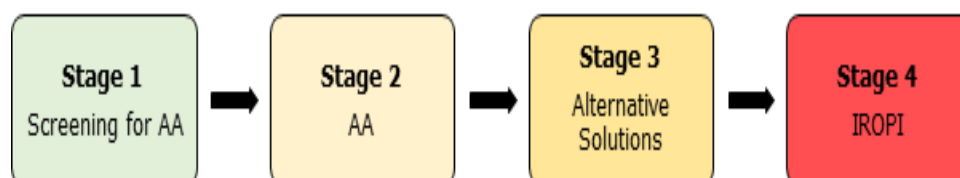
‘A coherent European ecological network of special areas of conservation shall be set up under the title Natura 2000. This network, composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, shall enable the natural habitat types and the species’ habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range’.

AA is an assessment of the likely potential significant effects arising from a plan or project, either individually or in combination with other plans or projects, to assess if the plan or project will have potential for significant effect on any European site concerned, and implications in view of the European site’s conservation objectives. These sites consist of SACs and SPAs and provide for the protection and long-term survival of Europe’s most valuable and threatened species and habitats. Where a formal consent process applies, the AA process is concluded by the relevant competent authority making a determination in accordance with article 6(3) of the Habitats Directive.

1.4. Overview of the Habitats Directive and Appropriate Assessment process

The Habitats Directive itself promotes a hierarchy of avoidance, mitigation and compensatory measures. This approach aims to avoid any effects on European sites by identifying possible effects early in the plan or project making process and avoiding such effects. Second, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential significant effects on European sites remain, and no further practicable mitigation is possible, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the plan or project is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effects.

There are four main stages in the AA process:



Stage One: Appropriate Assessment Screening

The process that identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment (AA)

The consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse effects mitigation measures are required to avoid or minimise potential effects. The details of these mitigation measures are then assessed in the context of the ecological integrity of the plan/project characteristics to ensure no significant adverse effects on European sites. If this assessment process shows there are no residual significant effects, then the process may end at this stage, stage two, of the AA process which are formalised in Natura Impact Statements (NIS) reports which support the overall AA process. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions

The process that examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Imperative Reasons of Overriding Public Interest (IROPI)

An assessment of compensatory measures, where no alternative solutions exist and where adverse impacts remain, but in the light of an assessment of IROPI, it is deemed that the project or plan should proceed.

1.5. Approach

This AA screening report is based on best scientific knowledge and has utilised ecological expertise, and is supported by desktop research on national databases including the National Biodiversity Data Centre¹; the NPWS² (including mapping and available reports for relevant sites, and in particular the qualifying interests/special conservation interests described and their conservation objectives); the EPA³ mapping websites; data collected for the most recent Article 12 and 17 conservation status reporting cycle, 2019; and, *The Status of Protected EU Habitats and Species in Ireland* report (NPWS, 2019).

The ecological desktop study that has been completed for the AA screening of the proposed development, comprised the following elements:

- Identification of European sites within 15 km⁴ of the subject lands;
- Identification of European sites pathways for effects from the site have been identified (if relevant⁵) greater than 15 km from the subject lands;
- Review of the NPWS site synopses and conservation objectives for European sites within 15 km and for which potential pathways from the proposed development area have been identified; and

¹ Available at: <https://maps.biodiversityireland.ie/>

² Available at: <https://www.npws.ie/protected-sites> and <https://dahg.maps.arcgis.com/apps/webappviewer/index.html?id=8f7060450de3485fa1c1085536d477ba>

³ Available at: <https://gis.epa.ie/EPAMaps/>

⁴ While the actual zone of influence is likely to be much smaller, the default 15km zone extent has been applied on a precautionary basis further detail on this is identified in section 3.2

⁵ This is particularly relevant for all sites with hydrological connectivity or other significant ecological pathways

- Examination of available information on protected species.

Source-Pathway Receptor model

Ecological impact assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model, where, 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 from proposed development;
- Pathway(s) – e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) – qualifying aquatic habitats and species of European sites.

In the context of this report, a receptor is an ecological feature that is known to be utilised by the qualifying interests or special conservation interests of a European site. A source is any identifiable element of the Proposed development that is known to interact with ecological processes. A pathway is any connection or link between the source and the receptor⁶.

This report provides information on whether direct, indirect and cumulative potential significant effects could arise from the proposed development.

Guidance

The AA screening has been prepared taking into account the relevant legislation (ref s1.3) and guidance, including:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009;*
- *Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC", European Commission 2018;*
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, European Commission Notice, Journal of the European Union, 2021;*
- *Practice Note PN01: Appropriate Assessment Screening for Development Management, Office of the Planning Regulator, 2021*

⁶ qualifying interest or special conservation interests of the European site in question and the known sensitivities of these key ecological receptors

2. Description of Proposed Development

2.1. Receiving environment overview

The proposed development is located at Clara Road, Moate, County Westmeath. The proposed development site consists of recolonising bare ground, with areas of unmanaged and overgrown grassland and patches of scrub. The site is bordered along the northern edge by residential dwellings; to the south by an area of mostly recolonising bare ground; and, to the east and west by a mix of treeline, hedgerow and scrub (Figure 2.1).

In the wider context, the proposed development site is just south of the main R446 route through Moate town. There are residential and sub-urban area towards the north, east and west of the proposed development site, and agricultural areas to the south (Figure 2.1). In consulting satellite imagery and the EPA databases on water courses⁷, there are no surface water courses adjacent to the site; the closest water course lies approximately 450 m to the south east of the proposed development site (Figure 2.2). The proposed site has no direct surface hydrological connection with any surface water course in the surrounding landscape⁷.

2.2. The proposed development

The proposed development is composed of site development and enabling works for the construction of 10 Serviced Sites located at Killeenboylegan, Moate, Co. Westmeath (Figure 2.1). The proposed development site is zoned for “Proposed Residential” in the Westmeath County Development Plan 2021-2027⁸. The purpose of the construction of 10 Serviced Sites is to increase the accessibility of private, residential housing for the local area, and so, each of the 10 Serviced Sites will become private residential dwellings for the local areas in the coming 2-3 years, as part of the Irish Government’s “Ready to Build Scheme (Services Sites for New Homes)”. Each site will then be subject to its own planning permission application for the design, landscaping, construction and operation of the residential home.

The proposed development involves stripping an area of the site which will then be split into 10 separate sites, with areas of retained grassland also (Figure 2.3). Each of the 10 sites shall have the following services installed as part of the proposed development:

- An access point;
- a mains water connection;
- a foul sewer to WWTP (wastewater treatment plant) connection; and
- an electricity mains connection.

All removed earth as a result of the proposed development will be retained on site in order to level the site as required. The proposed development site has existing foul sewer and surface water drainage infrastructure running through the site (due to the existing surrounding residential developments), which the proposed services above will connect to. Each of the 10 sites proposed will be partly soft standing area and will be able to attenuate their own surface water, however, an attenuation tank is also proposed for the site as a whole, for surface run off from the installed access routes and any secondary run off from the proposed 10 sites. It was deemed by the Local Authority that a Flood Risk Assessment is not required for the proposed development.

⁷ Accessed at: <https://gis.epa.ie/EPAMaps/> 27th September 2023

⁸ Westmeath County Development Plan 2021-2027 land use zoning mapping tool available [here](#).

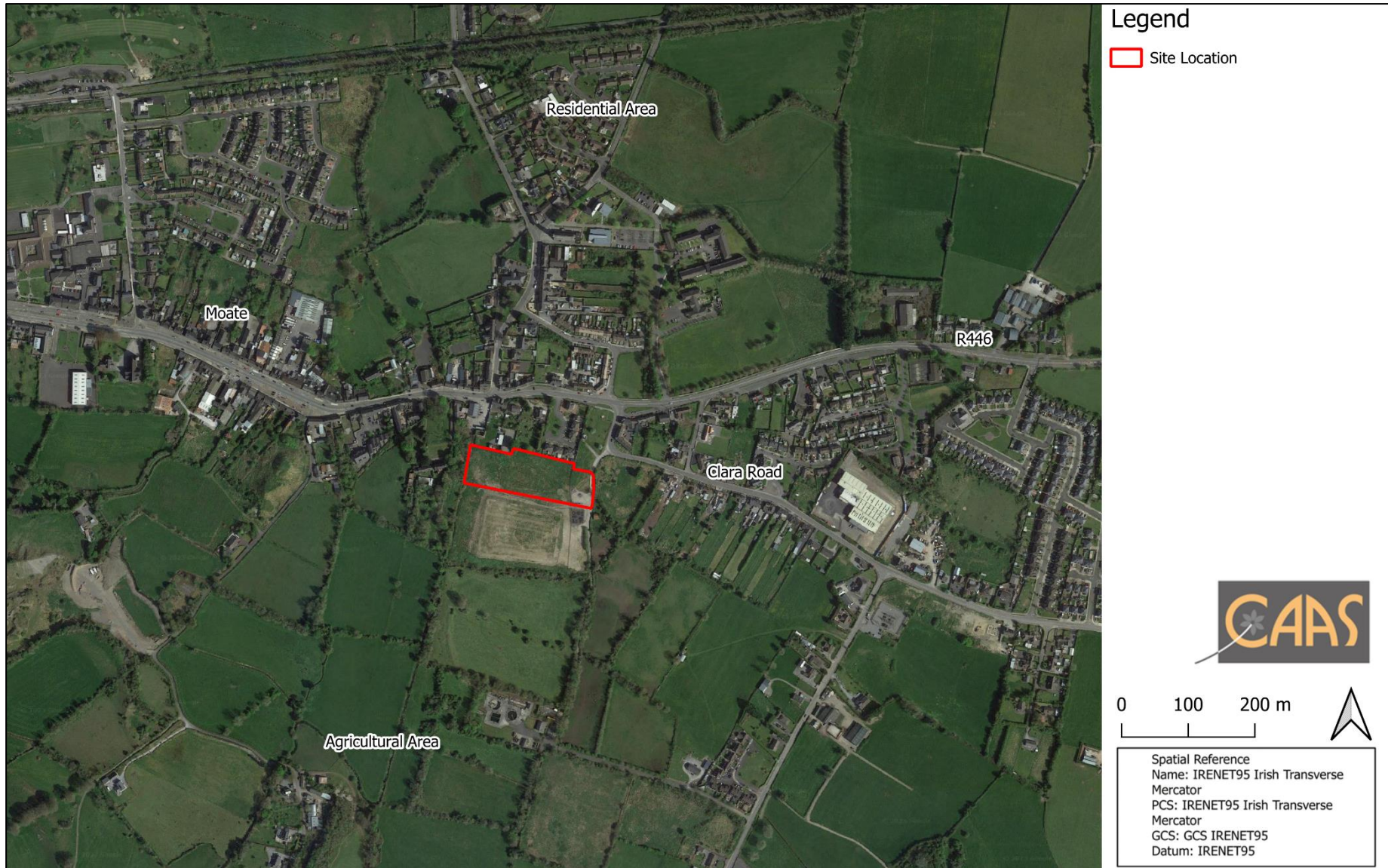


Figure 2.1. Location of the proposed development site



Figure 2.2. Location of EPA rivers relative to the proposed development site

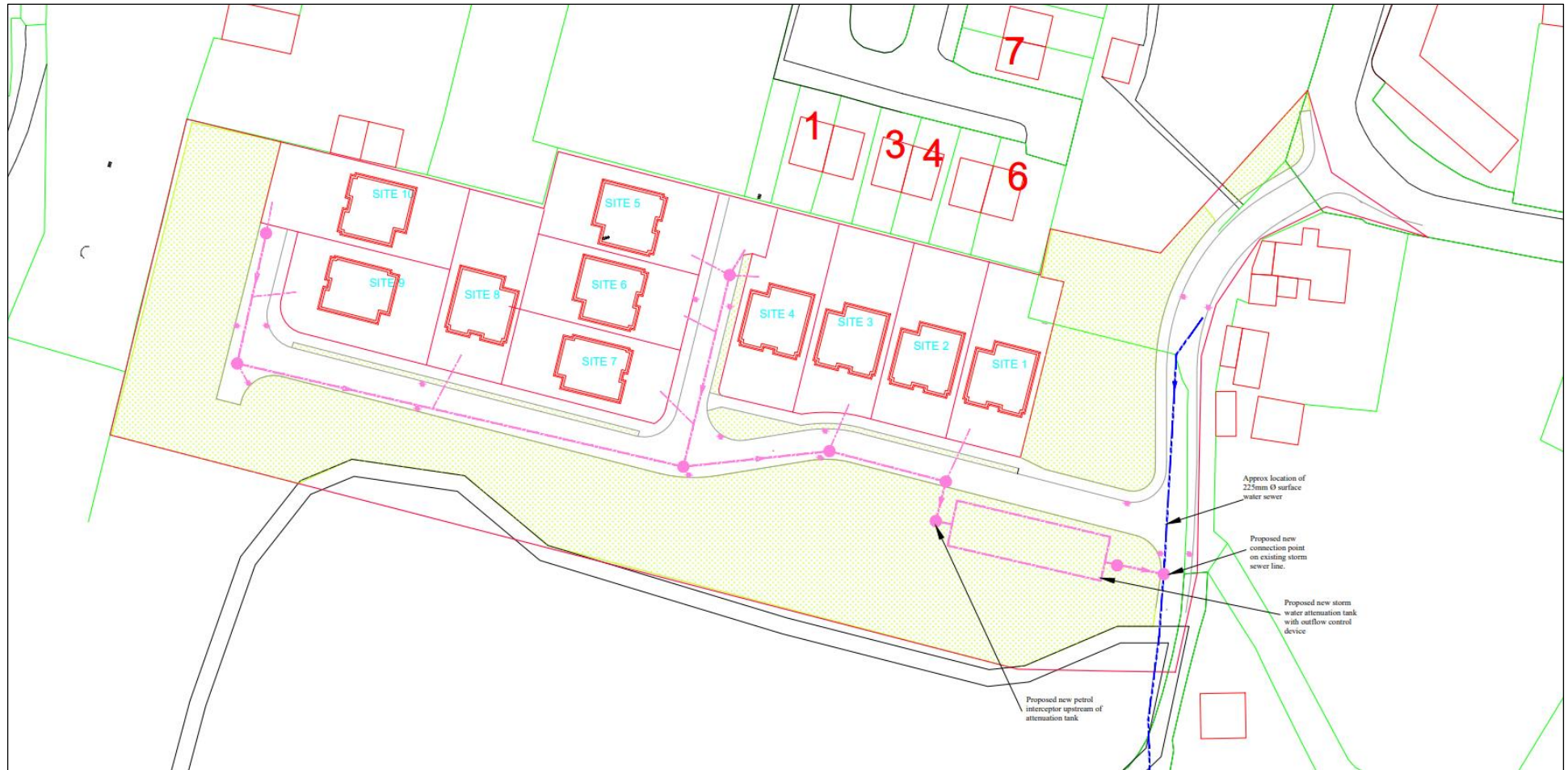


Figure 2.3. Plan of proposed development⁹

⁹ Source: Westmeath County Council (See accompanying drawing set for full scaled version)

3. Screening for Appropriate Assessment

3.1. Introduction

This stage of the process identifies any likely significant effects on European sites arising from the project, either alone or in combination with other projects or plans. A series of questions are asked in order to determine:

- 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 project will have a potentially 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 impacts.

An important element of the AA process is the identification of the “Conservation Objectives”, “Qualifying Interests” (QIs) and/or “Special Conservation Interests” (SCIs) of European sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each Special Area of Conservation (SAC) has been designated and afforded protection under the Habitats Directive. SCIs are bird species listed within Annexes I and II of the Birds Directive for which each Special Protection Area (SPA) has been designated and afforded protection under the Habitats Directive. Under the requirements of the Habitats Directive, the threats and pressures on the ecological / environmental conditions that are required to support QIs and SCIs, with specific regard to the Conservation Objectives of each site, are considered as part of the assessment.

Site-Specific Conservation Objectives (SSCOs) have been designed to define favourable conservation status for a particular habitat or species at that site. According to the European Commission interpretation document ‘Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC’, paragraph 4.6(3):

“The integrity of a site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site’s conservation objectives.”

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.

The favourable conservation status of a species is 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.

3.2. Identification of relevant European sites

The Zone of Influence (ZOI) is defined in the relevant guidance^{10,11} as the geographical area, relative to the proposed development, over which the proposed development could have effects on the ecological receiving environment in a way that could result in potential significant effects on the Qualifying Interests or Special Conservation Interests of a given European site.

The Department of Environment, Heritage and Local Government (2009) Guidance on Appropriate Assessment (AA) recommends that a search zone of up to 15 km be considered for AA for Plans, and acknowledges that this search zone could be much less for the AA of projects. As an initial search zone, this 15 km zone was applied for this assessment. Beyond 15 km, potential effects arising from the proposed development across terrestrial pathways (i.e., non-hydrological) at this scale are not identified to have any potential to cause significant effects due to the scale of the proposed development and the distances involved. However, further considerations were given to hydrological pathways (i.e., surface and/or groundwater) connecting the proposed development to European sites, as these may extend beyond the 15 km search zone.

Within the initial 15 km search zone, the ZOI was then established based on the nature of the proposed development and connectivity to European sites, their sensitivities, and Qualifying Interests (species and habitats designated for SACs) and Special Conservation Interests (species designated for SPAs). An assessment of the sources of effects (see Section 3.3 below) identifies that there are no significant direct or indirect hydrological pathways, or tributaries / connections to SACs or SPAs.

European sites that are designated for SCI species that are known to utilise (i.e., forage and or roost) isolated / ex-situ resources across the landscape (i.e., outside of the designated SPA boundary) could intersect with the zone of influence for the proposed development. The proposed development site is currently a brown field site, and is located 12.37 km from the closest SPA designated for SCI species. Therefore, the proposed development site does not hold potential supporting habitat for SCI species of SPAs in terms of ex-situ foraging.

Therefore, considering the nature of the proposed development, the small size of the proposed site and the minor nature of the proposed work, in the context of the current site use and the surrounding residential sub-urban context; any potential effects arising from the proposed development are likely to be within a localised ZOI of 200 m for the proposed development.

European sites that occur within the 15 km initial search zone, or that have been identified to have ecological connectivity pathways (e.g., hydrological) with the proposed development, or have been identified as having designated species which may utilise resources contained within the proposed development area, are listed and analysed in Table 3.1.

In order to determine the potential effects of the proposal, information on the qualifying features, known vulnerabilities and threats pertaining to any potentially affected European sites has been reviewed. Background information on threats to individual sites and vulnerability of habitats and

¹⁰ Practice Note PN01: *Appropriate Assessment Screening for Development Management*, Office of the Planning Regulator, 2021.

¹¹ CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester.

species that was used during this assessment included the following:

- Ireland's Article 17 Report to the European Commission "*Status of EU Protected Habitats and Species in Ireland*" (NPWS, 2019);
- Ireland's Article 12 Report to the European Commission "*Bird species' status and trends reporting format for the period 2008-2012-*" (NPWS, 2012)
- Site Synopses¹²; and
- NATURA 2000 Standard Data Forms¹².

The analysis in Table 3.1 considers the SSCOs of each of the sites within the 15 km initial search zone, and the 200 m ZOI, and any additionally connected sites. Since the Conservation Objectives for the European sites focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the screening process has concentrated on assessing the potential effects of the proposed development against the QIs/SCIs of each site and their Conservation Objectives.

¹² NPWS (2019); NPWS Database of protected site data and associated documents for each European site; available at <https://www.npws.ie/protected-sites>: last accessed 26th October 2022

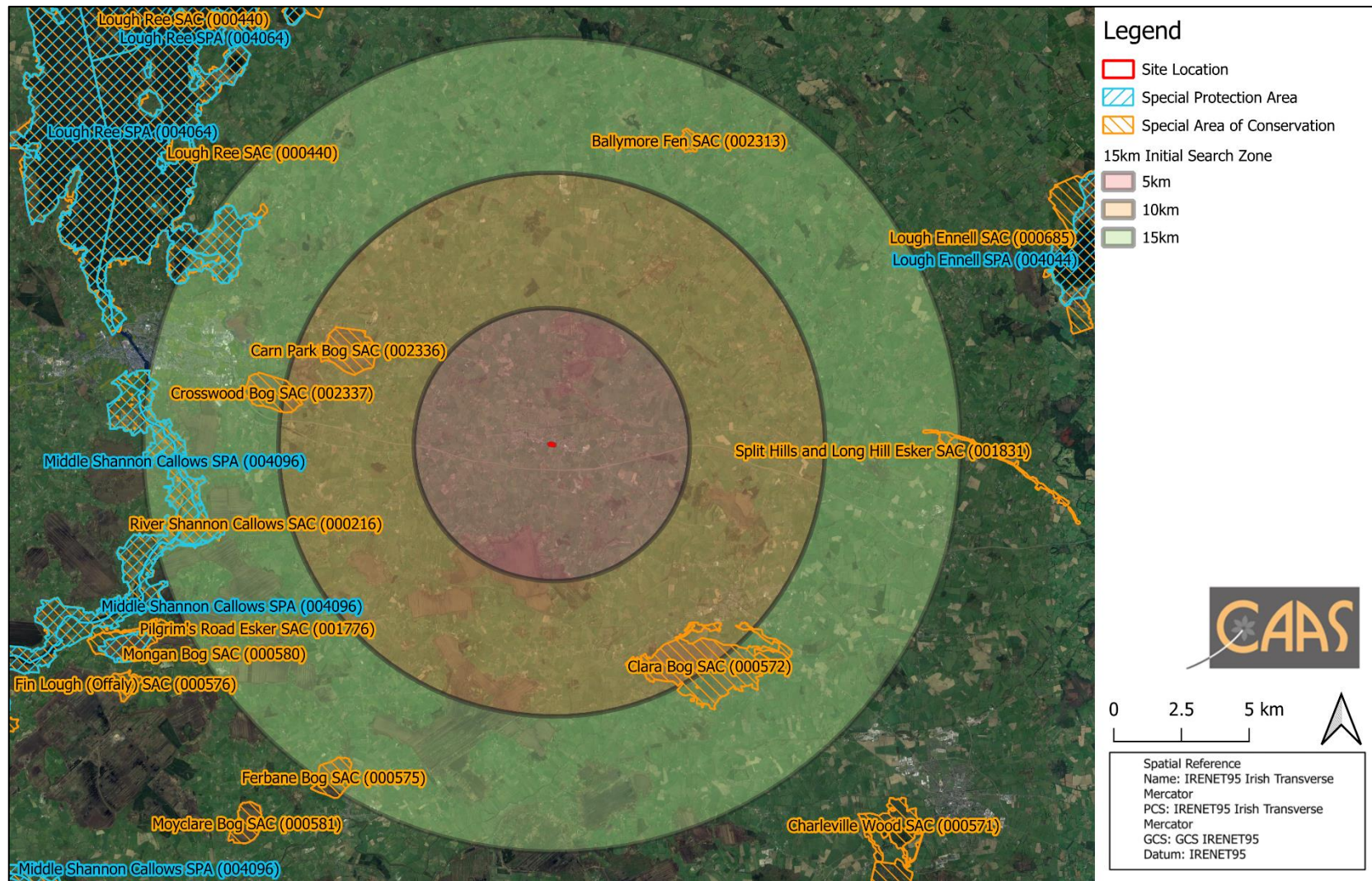


Figure 3.1. European sites within 15km of the proposed development boundary¹³

¹³ Source: NPWS (datasets downloaded 25th September 2023)

3.3. Assessment criteria

3.3.1. Is the development necessary to the management of European sites?

Under the Habitats Directive, projects that are directly connected with or necessary to the management of a European site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s). The relationship should be shown to be direct and not a by-product of the project, even if this might result in positive or beneficial effects for a site(s).

The primary purpose of the proposed development is not the nature conservation management of the site, but to construct 10 Serviced Sites at Clara Road, Moate, and all associated site works. Therefore, in the context of the Habitats Directive, the proposed development would not be considered by the Habitats Directive to be directly connected with or necessary to the management of European designated sites.

3.4. Characterising potential significant effects

This section details the parameters utilised by this AASR when assessing potential effects¹⁴.

- **Direct and Indirect Impacts** - An impact can be caused either as a direct or as an indirect consequence of a Plan/Project.
- **Magnitude** - Magnitude measures the size of an impact, which is described as high, medium, low, very low or negligible.
- **Extent** - The area over that the impact occurs – this should be predicted in a quantified manner.
- **Duration** - The time that the effect is expected to last prior to recovery or replacement of the resource or feature.
 - Temporary: Up to 1 Year;
 - Short Term: The effects would take 1-7 years to be mitigated;
 - Medium Term: The effects would take 7-15 years to be mitigated;
 - Long Term: The effects would take 15-60 years to be mitigated; and
 - Permanent: The effects would take 60 or years to be mitigated.
- **Likelihood** – The probability of the effect occurring taking into account all available information.
 - Certain/Near Certain: >95% chance of occurring as predicted;
 - Probable: 50-95% chance as occurring as predicted;
 - Unlikely: 5-50% chance as occurring as predicted; and
 - Extremely Unlikely: <5% chance as occurring as predicted.

The Chartered Institute of Ecology and Environmental Management (CIEEM) guidelines for ecological impact assessment (2016) define: an ecologically significant impact as an impact (negative or

¹⁴ Parameters used have been adapted from the following guidance documents on the conduction Appropriate Assessments and Ecological Impact Assessments:

- Department of the Environment, Heritage and Local Government (2009) Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities
- CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.2. Chartered Institute of Ecology and Environmental Management, Winchester; and,

positive) on the integrity of a defined site or ecosystem and/or the conservation status of habitats or species within a given geographic area; and the integrity of a site as the coherence of its ecological structure and function, across its whole area, which enables it to sustain the habitat, complex of habitats and/or the levels of populations of the species for which it was classified.

The Habitats Directive requires the focus of the assessment at this stage to be on the integrity of the site as indicated by its Conservation Objectives. It is an aim of NPWS to draw up conservation management plans for all areas designated for nature conservation. These plans will, among other things, set clear objectives for the conservation of the features of interest within a site.

SSCOs have been prepared for a number of European sites. These detailed SSCO aim to define favourable conservation condition for the qualifying habitats and species at that site by setting targets for appropriate attributes which define the character habitat. The maintenance of the favourable condition for these habitats and species at the site level will contribute to the overall maintenance of favourable conservation status of those habitats and species at a national level.

Favourable conservation status of a species can be described as being achieved when: *'population data on the species concerned indicate that it is maintaining itself, and the natural range of the species is neither being reduced or 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.'*

Favourable conservation status of a habitat can be described as being achieved when: *'its natural range, and area it covers within that range, is stable or increasing, and the ecological factors that 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'*.

First Order Site-specific Conservation Objectives are designated by the NPWS for a number of European sites that SSCO have yet to be prepared for.

A First Order Site-specific Conservation Objective for a SAC is provided below:

- To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected.

A First Order Site-specific Conservation Objective for a SPA is provided below:

- To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA.

3.4.1. Types of potential effects

EC guidance¹⁵ outlines the types of effects that may affect European sites. These include effects from the following activities:

- Land take

¹⁵ 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 Environment DG, 2001

- Resource requirements (drinking water abstraction etc.)
- Emissions (disposal to land, water or air)
- Excavation requirements (removal of soil and vegetation)
- Transportation requirements
- Duration of construction, operation, decommissioning

The 2001 European Commission AA guidance outlines the following potential changes that may occur at a designated site, which may result in effects on the Conservation Objectives of that site:

- Reduction of habitat area
- Disturbance to key species
- Habitat or species fragmentation
- Reduction in species density
- Changes in key indicators of conservation value (water quality etc.)
- Climate change

The elements detailed above were considered within the context of the European sites identified in this AASR (Table 3.1 and Figure 3.1) below.

Loss/reduction of habitat area

There are no European sites present within the proposed development boundary (the closest European site to the proposed development site is, Carn Park Bog SAC (002336), at 7.10 km from the proposed development site). No Annex I habitats or supporting habitat for Annex II species were identified within the proposed development boundary¹⁶. There are also no sources for potential significant effects via indirect surface water drainage or direct hydrological connectivity as a result of the proposed development considering the nature of the proposed development (see s2) the distance to European sites, and the lack of hydrological connectivity (S2.1 and Figure 2.2). Therefore, there are no sources with a likelihood for significant effects posed to European sites in this regard.

Habitat or species fragmentation

The proposed development site itself is composed of recolonising bare ground and overgrown grassland and scrub patches, with no suitable habitat for ex-situ foraging for SCI species. Overall, the proposed development site has no ecological value for foraging SCI species due to the unsuitability of the receiving environment of the proposed site for ex-situ foraging. Therefore, there are no sources with a likelihood for potential significant effects posed to European sites in this regard.

Disturbance to key species

There will be a minor, short-term increase in noise and dust levels during the construction phase, but these will be negligible in terms of potential significant effects due to the small-scale and temporary duration of the construction phase, and the distance to European sites. The site is over 2 km from the nearest SPA which is a sufficient distance^{17, 18} to ensure no disturbance effects through

¹⁶ Consulting current data sets for the proposed development location supplied by the NPWS (<https://www.npws.ie/maps-and-data>) and the NBDC (<https://maps.biodiversityireland.ie/>)

¹⁷ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

¹⁸ Rudock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

noise in the construction phase. The operational phase of the proposed development will not result in any significant increase in noise levels due to the small scale, temporary nature of the proposed development, and the disturbed, suburban nature of the surrounding receiving environment of the proposed development site.

There are no sources for indirect disturbance to SCI species from surrounding SPAs in terms of ex-situ foraging. The proposed development site has no ecological value to SCI species and is within a suburban area within the town of Moate, with high levels of disturbance. Therefore, there are no sources with a likelihood for significant effects posed to European sites in this regard also.

Reduction in species density

There will be no permanent loss of connecting or contributing habitat for European sites as a result of the proposed development. The receiving environment of the proposed development site also has an overall no ecological value for foraging SCI species due to the high disturbance levels as a result of the current nature of the existing site, and lack of suitable foraging habitat for ex-situ SCI species. There will also be no direct loss of SAC or SPA habitat as a result of the proposed development.

The nearest water course¹⁹ is approximately 450 m to the southeast of the proposed development, which has no direct surface connectivity to the proposed development site and, there is no direct surface hydrological connection between the proposed development and this water course. There will be a change in hard surfaced area as a result of the proposed development, which can cause a slight increase of surface water run-off, however, due to the scale and nature of the proposed development, any changes introduced to potential surface water run-off area will be negligible. An attenuation tank is proposed for the operational phase of the proposed development, however, this is not a prescribed measures for the purposes of AA, but rather site management, as the proposed development does not introduce any sources for potential significant effect via hydrological direct or indirect connectivity due to the small nature of the development, the distance to European sites, and the lack of connectivity to European sites. The proposed development will install new gullies to connect surface area to the existing underground surface water drainage infrastructure that runs through the site. It is not envisioned that the change in surface to hard area as a result of the proposed development will result in any change that could significantly increase the amount of surface water runoff in the construction and operational phase. The operational phase of the proposed development will also create new connections with the existing foul sewer infrastructure which is running through the site. It has been confirmed by the Local Authority that there will be sufficient capacity in a local WWTP to accommodate the number of residents envisioned for each of the planned for the Services Sites when they are constructed (after each undergoing individual planning applications) at a later stage. Therefore, there are no sources with a likelihood for significant effects posed to European sites with regard to Reduction in species density.

Changes of indicators of conservation value

Water quality is an important indicator for Conservation Objectives of many European sites. There is no direct surface hydrological connection between the proposed development and any surface water courses. The nearest water course²⁰ is approximately 120 m to the south of the proposed

¹⁹ Accessed at: <https://gis.epa.ie/EPAMaps/> 27th September 2023

²⁰ Accessed at: <https://gis.epa.ie/EPAMaps/> 27th September 2023

development, which has no direct surface connectivity to the proposed development site, and therefore, there is no direct surface hydrological connection between the proposed development and this water course. There will be a change in hard surfaced area as a result of the proposed development, which can cause a slight increase of surface water run-off, however, due to the scale and nature of the proposed development, any changes introduced to potential surface water run-off area will be negligible. An attenuation tank is proposed for the operational phase of the proposed development, however, this is not a prescribed measure for the purposes of AA, but rather site management, as the proposed development does not introduce any sources for potential significant effect via hydrological direct or indirect connectivity due to the small nature of the development, the distance to European sites, and the lack of connectivity to European sites. The proposed development will install new gullies to connect surface area to the existing underground surface water drainage infrastructure that runs through the site. It is not envisioned that the change in surface to hard area as a result of the proposed development will result in any change that could significantly increase the amount of surface water runoff in the construction and operational phase. The operational phase of the proposed development will also create new connections with the existing foul sewer infrastructure which is running through the site. It has been confirmed by the Local Authority that there will be sufficient capacity in a local WWTP to accommodate the number of residents envisioned for each of the planned for the Services Sites when they are constructed (after each undergoing individual planning applications) at a later stage. Therefore, there are no sources with pathways for potential significant effects that may affect conservation indicators of European sites, such as water quality.

Climate change

The proposed development will result in a slight increase in greenhouse gas emissions during the construction phase, which will be localised and temporary. There will be a slight increase in emissions from the operational phase of the proposed development due to the nature of the proposed development. However, given the small scale and temporary timeline of the proposed development's construction and operational phase, the emissions from the construction and operational phase are determined to be of such a minor scale that they will not affect changes projected to arise from climate change to the degree that it would affect the QIs or SCIs of the European sites considered.

3.5. Identification of likely significant effects of the proposed development

This part of the screening assessment process identifies whether the changes brought about by the proposed development may introduce sources with pathways for introducing direct, indirect or secondary potential effects (either alone or in combination with other plans or projects) on the European sites considered in this report, in the absence of any controls, conditions, or mitigation measures (as required for an AASR). A number of factors have been taken into account including the sites' conservation objectives and known threats. Certain standardised metrics are utilised in this AASR to describe and assess the likely significant effects, thus standardising the assessment process across all plans and projects. These metrics are described, alongside the guidelines used in compiling them, in section 3.4 above.

The overall aim of the AASR is to predict the potential effects that can be reasonably foreseen to have a likelihood of causing potential significant effects on European sites as a result of the implementation of the proposed development.

The construction and operational phase elements of the proposed development with potential to introduce sources for effects on ecological processes are identified below. These will be discussed and considered below and in Table 3.1 for a likelihood of potential significant effects in view of the Special Conservation Interests, and Qualifying Interests of the European sites, and their sensitivities, and Qualifying Interests. Subsequently it will be stated whether or not likely significant effects have been identified as a result of the proposed development.

Construction phase potential effects

The construction phase will be localised, small-scale and temporary. Potential sources for effects identified from the construction phase of the proposed development are:

- Disturbance effects through noise;
- Dust; and,
- Surface water run-off.

Each of these potential effects are discussed below in the context of the proposed site, the surrounding landscape, the sensitivities of and pathways to European sites, and the likelihood of significant effects arising from these potential effects.

Disturbance effects through noise

The construction phase of the proposed development has potential for effects for disturbance through noise to ex-situ foraging SCI species. However, this potential effect via noise during the construction phase will be temporary (i.e., less than one year) and localised. SCI species are sensitive to disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{21,22}. These distances can vary due to factors such as species and/or time of year^{23,24}. Given that the closest SPA is the Middle Shannon Callows SPA, at 12.37 km from the proposed development, it is deemed that this is sufficient distance to ensure that there is no likelihood for potential significant effects via construction phase noise disturbance during the construction phase of the proposed development.

Dust

There will be an increase in dust emissions during the construction phase of the proposed development only. The operational phase will not introduce any sources for effects in this regard. However, given the distances between the proposed development site and the closest European sites of 7.1 km; the small scale of the proposed development; and, the temporary nature of the construction phase it is deemed that there are no sources with pathways for likely significant effects via construction related dust as a result of the proposed development.

²¹ Rudock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

²² Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

²³ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. *Proceedings of the Royal Society B: Biological Sciences*, 284(1858), p.20170846.

²⁴ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. *Ibis*, 162(3), pp.845-862.

Surface water run-off

The nearest water course²⁵ is approximately 120 m to the south of the proposed development, which has no direct surface connectivity to the proposed development site, and therefore, there is no direct surface hydrological connection between the proposed development and this water course. There is however indirect connectivity via surface water runoff to the surrounding landscape. There will be a change in hard surfaced area as a result of the proposed development, which can cause a slight increase of surface water run-off, however, due to the scale and nature of the proposed development, any changes introduced to potential surface water run-off area will be negligible. An attenuation tank is proposed for the operational phase of the proposed development, however, this is not a prescribed measures for the purposed of AA, but rather site management, as the proposed development does not introduce any sources for potential significant effect via hydrological direct or indirect connectivity due to the small nature of the development, the distance to European sites, and the lack of connectivity to European sites.

The proposed development will install new gullies to connect surface area to the existing underground surface water drainage infrastructure that runs through the site. It is not envisioned that the change in surface to hard area as a result of the proposed development will result in any change that could significantly increase the amount of surface water runoff in the construction and operational phase.

Operational phase potential effects

The operational phase effects will be localised, small-scale and permanent. There will be no permanent loss of habitat that neither supports, nor is ecologically connected to, any European sites in the operational phase. The construction phase will be localised, small-scale and temporary. Potential sources for effects identified from the operational phase of the proposed development are:

- Water quality (via surface water runoff and foul sewer capacity)

This potential effect is discussed below in the context of the proposed site, the surrounding landscape, the sensitivities of and pathways to European sites, and the likelihood of significant effects arising from these potential effects.

Water quality

The nearest water course²⁶ is approximately 120 m to the south of the proposed development, which has no direct surface connectivity to the proposed development site, and therefore, there is no direct surface hydrological connection between the proposed development and this water course (Figure 2.2). There will be a change in hard surfaced area as a result of the proposed development, which can cause a slight increase of surface water run-off, however, due to the scale and nature of the proposed development, any changes introduced to potential surface water run-off area will be negligible in terms of European sites. An attenuation tank is proposed for the operational phase of the proposed development, however, this is not a prescribed measures for the purposed of AA, but rather site management, as the proposed development does not introduce any sources for potential significant effect via hydrological direct or indirect connectivity due to the small nature of the development, the distance to European sites, and the lack of connectivity to European sites. The

²⁵ Accessed at: <https://gis.epa.ie/EPAMaps/> 27th September 2023

²⁶ Accessed at: <https://gis.epa.ie/EPAMaps/> 27th September 2023

proposed development will install new gullies to connect surface area to the existing underground surface water drainage infrastructure that runs through the site. It is not envisioned that the change in surface to hard area as a result of the proposed development will result in any change that could significantly increase the amount of surface water runoff in the construction and operational phase.

The operational phase of the proposed development will also create new connections with the existing foul sewer infrastructure which is running through the site. It has been confirmed by the Local Authority that there will be sufficient capacity in a local WWTP to accommodate the number of residents envisioned for each of the planned for the Services Sites when they are constructed (after each undergoing individual planning applications) at a later stage.

Therefore, it is deemed that the proposed development does not present a source with pathways for likely significant effects on European sites due to any significant change to surface water and wastewater drainage or hydrological connectivity.

3.5.1. Summary of likely significant effects

Therefore, in summary, for the purposes of this assessment report of the proposed development, and considering the precautionary principle²⁷, the proposed development is identified as having no sources with pathways for likely significant effects from the construction or operational phases of the proposed development.

The identified potential effects above are also considered and discussed in section 3.6 and Table 3.1 below, in the context of each of the European sites identified by this assessment report, in view of each of their sensitivities and Conservation Objectives.

3.6. Screening of sites

This section of the report concerns the final stage of the screening process. Information has been collected and is presented on the sensitivity of each relevant European site (ref 3.2), and potential effects on each European site resulting from the proposed development have been identified (in s3.5 which assumed the absence of any controls, conditions, or mitigation measures, as required in AA screening). In determining the likelihood for potential for significant effects, a number of factors have been taken into account. First the sensitivity and reported threats to European sites and second, the individual elements of the proposed development and the potential significant effects they may cause on the sites, were considered. These factors are analysed as presented in Table 3.1.

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

- where it can be shown that there are no significant pathways such as hydrological links between activities of the proposed development and a site;
- where a site is located at such a distance from proposed development area that effects are not foreseen; and
- where known threats or vulnerabilities of a site cannot be linked to potential impacts that may arise from the proposed development.

²⁷ Case law: ([C127/02 Waddenzee](#)).

Table 3.1 Screening assessment of the potential effects arising from the proposed development

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
002336	Carn Park Bog SAC	7.10	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	Forestry clearance [B02.02], Mechanical removal of peat [C01.03.02], Paths, tracks, cycling tracks [D01.01], Invasive non-native species [I01], Introduced genetic material, GMO [I03], Landfill, land reclamation and drying out, general [J02.01], Modification of hydrographic functioning, general [J02.05]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities, hydrological interactions and groundwater interactions.</p> <p>The site is 7.10 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, this site is hydrologically isolated from the proposed development area as raised bog habitats are domed and primarily rainwater fed (ombrotrophic) and isolated from groundwater²⁹.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>	No	No
000572	Clara Bog SAC	8.23	Degraded raised bogs still capable of natural regeneration [7120], Semi-natural dry grasslands and scrubland facies on calcareous substrates	Abandonment of pastoral systems lack of grazing [A04.03], Stock feeding [A05.02], Fertilisation [A08], Sand and gravel quarries [C01.01.01], Peat extraction [C01.03], Paths,	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities, hydrological interactions and groundwater interactions.</p> <p>The site is 8.23 km from the proposed development. There are no sources for effect for direct land use management to the SAC as</p>	No	No

²⁸ Qualifying Feature here represents either Qualifying Interest (in the case of SACs), or Special Conservation Interest (in the case of SPAs)

²⁹ Adapted from NPWS (2019). The Status of EU Protected Habitats and Species in Ireland.

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
			<i>(Festuco-Brometalia)</i> * important orchid sites [6210], Bog woodland [91D0], Depressions on peat substrates of the Rhynchosporion [7150], Active raised bogs [7110]	tracks, cycling tracks [D01.01], Disposal of household or recreational facility waste [E03.01], Agricultural structures, buildings in the landscape [E04.01], Taking or removal of terrestrial plants, general [F04], Burning down [J01.01], Management of aquatic and bank vegetation for drainage purposes [J02.10], Other human induced changes in hydraulic conditions [J02.15], No threats or pressures [X]	<p>this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, due to the nature and size of the proposed development, and the significant dilution factor involved, there are no sources for effect via groundwater interactions with this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>		
002337	Crosswood Bog SAC	9.23	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	Stock feeding [A05.02], Forestry clearance [B02.02], Mechanical removal of peat [C01.03.02], Paths, tracks, cycling tracks [D01.01], Disposal of household or recreational facility waste [E03.01], Invasive non-native species [I01], Introduced genetic material, GMO [I03], Fire and fire suppression [J01], Landfill, land reclamation and drying out, general [J02.01], Modification of hydrographic functioning,	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities, hydrological interactions and groundwater interactions.</p> <p>The site is 9.23 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, this site is hydrologically isolated from the proposed development area as raised bog habitats are domed and primarily</p>	No	No

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
				general [J02.05]	rainwater fed (ombrotrophic) and isolated from groundwater ³⁰ . Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.		
002313	Ballymore Fen SAC	11.82	Transition mires and quaking bogs [7140]	Non intensive mowing [A03.02], Non intensive mixed animal grazing [A04.02.05], Abandonment of pastoral systems lack of grazing [A04.03], Fertilisation [A08], Other point source pollution to surface water [H01.03], Problematic native species [I02]	Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities, hydrological interactions and groundwater interactions. The site is 11.82 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary. Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, due to the nature and size of the proposed development, and the significant dilution factor involved, there are no sources for effect via groundwater interactions with this European site. Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.	No	No
000216	River Shannon Callows	12.37	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion</i>)	Mowing or cutting of grassland [A03], Abandonment or lack of mowing [A03.03], Intensive	Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to hydrological interactions, direct land use management activities	No	No

³⁰ Adapted from NPWS (2019). The Status of EU Protected Habitats and Species in Ireland.

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
	SAC		<i>incanae</i> , <i>Salicion albae</i> [91E0], Limestone pavements [8240], Otter (<i>Lutra lutra</i>) [1355], Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) [6510], Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinia caerulea</i>) [6410], Alkaline fens [7230]	grazing [A04.01], Non intensive mixed animal grazing [A04.02.05], Abandonment of pastoral systems lack of grazing [A04.03], Use of biocides, hormones and chemicals [A07], Fertilisation [A08], Removal of hedges and copses or scrub [A10.01], Forestry clearance [B02.02], Grazing in forests or woodland [B06], Mechanical removal of peat [C01.03.02], Paths, tracks, cycling tracks [D01.01], Hunting [F03.01], Outdoor sports and leisure activities, recreational activities [G01], Trampling, overuse [G05.01], Landfill, land reclamation and drying out, general [J02.01], Flooding [J02.04.01], Modification of hydrographic functioning, general [J02.05], Modifying structures of inland water courses [J02.05.02], Siltation rate changes, dumping, depositing of dredged deposits [J02.11], Predation [K03.04]	and groundwater interactions. The site is 12.37 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary. Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, due to the nature and size of the proposed development, and the significant dilution factor involved, there are no sources for effect via groundwater interactions with this European site. Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.		
004096	Middle Shannon	12.37	Whooper Swan (<i>Cygnus cygnus</i>)	Mowing or cutting of grassland [A03], Grazing	Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this	No	No

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
	Callows SPA		[A038], Wigeon (<i>Anas penelope</i>) [A050], Wetland and Waterbirds [A999], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Lapwing (<i>Vanellus vanellus</i>) [A142], Corncrake (<i>Crex crex</i>) [A122], Golden Plover (<i>Pluvialis apricaria</i>) [A140]	[A04], Abandonment of pastoral systems lack of grazing [A04.03], Fertilisation [A08], Paths, tracks, cycling tracks [D01.01], Bridge, viaduct [D01.05], Urbanised areas, human habitation [E01], Leisure fishing [F02.03], Hunting [F03.01], Nautical sports [G01.01], Walking, horse-riding and non-motorised vehicles [G01.02]	<p>AASR) in the context of the potential effects identified in S3.5, this SPA is sensitive to hydrological interactions, direct land use management activities and disturbance effects.</p> <p>The site is 12.37 km from the proposed development. There are no sources for effect for direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{31,32}. These distances can vary due to factors such as species and/or time of year^{33,34}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. However, considering the current nature of the proposed development site, the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in the regard.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>		

³¹ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

³² Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

³³ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

³⁴ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
000440	Lough Ree SAC	13.08	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0], Bog woodland [91D0], Degraded raised bogs still capable of natural regeneration [7120], Otter (<i>Lutra lutra</i>) [1355], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Alkaline fens [7230], Active raised bogs [7110], Limestone pavements [8240], Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210]	Abandonment or lack of mowing [A03.03], Grazing [A04], Fertilisation [A08], Forest and plantation management & use [B02], Piers or tourist harbours or recreational piers [D03.01.02], Dispersed habitation [E01.03], Leisure fishing [F02.03], Hunting [F03.01], Nautical sports [G01.01], Walking, horse-riding and non-motorised vehicles [G01.02], Wildlife watching [G02.09], Diffuse pollution to surface waters due to household sewage and waste waters [H01.08], Diffuse groundwater pollution due to agricultural and forestry activities [H02.06], Thermal heating of water bodies [H06.03], Invasive non-native species [I01], Flooding modifications [J02.04], Other siltation rate changes [J02.11.02], Antagonism arising from introduction of species [K03.05], Inundation (natural processes) [L08]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities and hydrological and groundwater interactions.</p> <p>The site is 13.08 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, due to the nature and size of the proposed development, and the significant dilution factor involved, there are no sources for effect via groundwater interactions with this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>	No	No
004064	Lough Ree	13.13	Teal (<i>Anas crecca</i>) [A052], Tufted Duck	Grazing [A04], Fertilisation [A08], Sylviculture, forestry	Considering the Special Conservation Interests and known sensitivities of this European site (detailed in Appendix I of this	No	No

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
	SPA		<p>(<i>Aythya fuligula</i>) [A061], Shoveler (<i>Anas clypeata</i>) [A056], Whooper Swan (<i>Cygnus cygnus</i>) [A038], Wigeon (<i>Anas penelope</i>) [A050], Mallard (<i>Anas platyrhynchos</i>) [A053], Little Grebe (<i>Tachybaptus ruficollis</i>) [A004], Coot (<i>Fulica atra</i>) [A125], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Goldeneye (<i>Bucephala clangula</i>) [A067], Wetland and Waterbirds [A999], Common tern (<i>Sterna hirundo</i>) [A193], Lapwing (<i>Vanellus vanellus</i>) [A142], Common Scoter (<i>Melanitta nigra</i>) [A065]</p>	<p>[B], Leisure fishing [F02.03], Hunting [F03.01], Nautical sports [G01.01], Walking, horse-riding and non-motorised vehicles [G01.02], Invasive non-native species [I01]</p>	<p>AASR) in the context of the potential effects identified in S3.5, this SPA is sensitive to hydrological interactions, direct land use management activities and disturbance effects.</p> <p>The site is 13.13 km from the proposed development. There are no sources for effect for direct land use management to the SPA as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions.</p> <p>SCI species are sensitive to noise disturbance effects; in general distances beyond 2 km are seen to be sufficient to preclude such effects^{35,36}. These distances can vary due to factors such as species and/or time of year^{37,38}. Given the distance between the proposed development area and the SPA there are no pathways for disturbance effects identified in this regard.</p> <p>These SCI species are highly vagile and therefore may utilise ex-situ ecological resources which may have interactions with the proposed development. However, considering the current nature of the proposed development site, the local scale interactions with ex-situ resources are not likely to have significant effects on the SPA in the regard.</p> <p>Considering the SCIs of this SPA, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>		

³⁵ Ruddock, M. and Whitfield, D.P., 2007. A review of disturbance distances in selected bird species. A report from Natural Research (Projects) Ltd to Scottish Natural Heritage, 181.

³⁶ Bright, J.A., Langston, R. and Anthony, S., 2009. Mapped and written guidance in relation to birds and onshore wind energy development in England. Sandy: RSPB.

³⁷ Bötsch, Y., Tablado, Z. and Jenni, L., 2017. Experimental evidence of human recreational disturbance effects on bird-territory establishment. Proceedings of the Royal Society B: Biological Sciences, 284(1858), p.20170846.

³⁸ Goss-Custard, J.D., Hoppe, C.H., Hood, M.J. and Stillman, R.A., 2020. Disturbance does not have a significant impact on waders in an estuary close to conurbations: importance of overlap between birds and people in time and space. Ibis, 162(3), pp.845

Site code	Site name	Distance (km)	Qualifying feature ²⁸	Known threats and pressures	Analysis of potential effects	Likelihood of potential significant effects	Likelihood of potential in-combination effects
001831	Split Hills and Long Hill Esker SAC	13.63	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210]	Intensive cattle grazing [A04.01.01], Non intensive cattle grazing [A04.02.01], Non intensive mixed animal grazing [A04.02.05], Paths, tracks, cycling tracks [D01.01], Species composition change (succession) [K02.01], Competition [Flora] [K04.01]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities.</p> <p>The site is 13.63 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>	No	No
000575	Ferbane Bog SAC	13.76	Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	Agricultural intensification [A02.01], Fertilisation [A08], Restructuring agricultural land holding [A10], Forest exploitation without replanting or natural regrowth [B03], Sand and gravel extraction [C01.01], Peat extraction [C01.03], Disposal of household or recreational facility waste [E03.01], Disposal of inert materials [E03.03], Burning down [J01.01], Other human induced changes in hydraulic conditions [J02.15], Species composition change (succession) [K02.01], No threats or pressures [X]	<p>Considering the Qualifying Interests and known sensitivities of this European site (detailed in Appendix I of this AASR) in the context of the potential effects identified in S3.5, this SAC is sensitive to direct land use management activities, hydrological interactions and groundwater interactions.</p> <p>The site is 13.76 km from the proposed development. There are no sources for effect for direct land use management to the SAC as this site is outside of the proposed development boundary.</p> <p>Given the nature and scale of the proposed development, the absence of direct hydrological pathways, and sources for likely significant effect via indirect hydrological pathways such as surface water runoff (as discussed in 3.4.1 and s3.5), there is no likelihood for potential significant effects via hydrological interactions. In addition, due to the nature and size of the proposed development, and the significant dilution factor involved, there are no sources for effect via groundwater interactions with this European site.</p> <p>Considering the QIs of this SAC, and given the nature of the proposed development and the distances involved; there are no sources with a likelihood for potential significant effects, and no further assessment is required.</p>	No	No

3.7. Other plans and projects

Article 6(3) of the Habitats Directive requires an assessment of a plan or project to consider other plans or projects that might, in combination with the plan or project, have potential for significant effects on European sites.

Section 3.2 - receiving environment overview - identifies the overall characteristics of the area with respect to existing condition and general land use. For considerations of in combination with respect to emerging or recent developments a search of the Dept of Housing, Local Government and Heritage planning database was undertaken to identify relevant plans and programmes which relate to the proposed development. All developments from the receiving area were considered; the area considered is defined by the authoring ecologist using criteria which depend on the characteristics of the proposed development and the associated sources (identified above); these criteria include:

- Having direct or indirect connectivity to a European site;
- Being in close proximity to a European site;
- Being of a substantial scale relative to the conditions and/or current works taking place in the surrounding landscape;
- Having disperse emissions or far-reaching sources for effects;
- Having sources for effects on ecological connectivity.

These factors are considered in the context of characteristics of the proposed development and on this basis a search radius of 200 m was selected to be used to search for projects within the receiving environment. The sources for effects from the proposed development are considered in combination with the potential sources for effects from the receiving environment for potential additive or interactive effects on the receiving environment.

Plans of relevance for consideration of possible in-combination effects:

- Westmeath County Development Plan 2021-2027
- Westmeath County Council Climate Change Adaptation Strategy 2019-2024

Considering that the proposed development has a small-scale, temporary construction phase and the operational phase is consistent with the current site use, and the land use zoning of the above plan, it is not foreseen that proposed development will have any likely significant in-combination effects with the above plans.

Projects considered for consideration of possible in-combination effects:

Further to section 3.2 – which details the existing land uses and general characteristics of the area – a focus was placed on current and future development applications. To identify projects for consideration for the in-combination effects section, the Dept of Housing, Local Government and Heritage planning database was used³⁹. A review of all planning applications within the identified zone was conducted focusing on all application within the past 5 years⁴⁰.

³⁹ Accessed at: <https://data-housinggovie.opendata.arcgis.com/datasets/planning-application-sites-2010-onwards>; 28th September 2023

⁴⁰ Planning applications have a standard lifespan of 5 years as per Section 40 (3)(b) of the Planning & Development Act 2000, as amended; therefore, these are viewed to be the 'live' applications, all other projects as these would not have any in-combination effects' with as there are not relevant other than refused and withdrawn applications, as these would not have any in-combination effects

There are a number of other proposed developments in the vicinity of the proposed development including works which are at planning stage or underway on various sites. The database search found that these projects within the area are relating to the construction and alteration of residential structures, all of which undergo Appropriate Assessment where required. Table 3.2 provides a list of the proposed developments within 200 m of the proposed development. 200m was deemed a suitable search radius as the proposed development site is within the suburban landscape of Moate town environs.

Due to the scale and nature of the proposed development, there are no sources with a likelihood for potential significant effects identified as a result of the implementation of the proposed development. On this basis, the assessment guidance given in CIEEM, 2018 indicates that there is no need to consider cumulative effects. However, in taking a precautionary approach, relevant plans and projects have nonetheless been reviewed and assessed in-combination with the proposed development.

The proposed development is a small scale, temporary construction phase, and an operational phase that is consistent with current site use and environment. The project listed in Table 3.2 below in the local area is small in scale with Appropriate Assessment and/or EIA screening carried out if required. Therefore, given the nature and scale of the proposed development, and the lack of any sources with a likelihood for potential significant effects, there are no likely in-combination significant effects with the below projects or above plans, on any European site considered in this report.

Table 3.2 Extant planning applications for proposed developments within 200 m^{41, 42}

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant in-combination effects
Project Code: 22284 Grant Date: 2023-03-13 Project Area (sq m): 3096.70	Conditional	construct 12 no. residential units in two blocks consisting of 6 mid terraced 2-bedroom units and 2 no. end of terrace 3-bedroom units in Block A and 2 mid terraced 2-bedroom units and 2 no. end of terrace 3-bedroom units in Block B with associated parking, site works and connection to services	2.74	PERMISSION	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment. Considering the above, in combination with the lack of any potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites. The consent process for this project was subject to applicable EIA and AA requirements.	No
Project Code: 22383 Grant Date: 2023-02-21 Project Area (sq m): 1613.40	Conditional	to construct a two-storey extension to the rear of the existing dwelling. The application will also include the demolition of an existing single storey extension and an existing domestic garage and all associated site works.	134.22	PERMISSION	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment. Considering the above, in combination with the lack of any potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites. The consent process for this project was subject to applicable EIA and AA requirements.	No

⁴¹ The majority of surrounding developments are minor projects with no risk of in-combination effects. Therefore, a summary list is provided here of the four largest proposed schemes within the below stated parameters

⁴² Parameters used: planning application from within the last 5 years, within a radius of 200m around the proposed scheme boundary

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant in-combination effects
<p>Project Code: 207067</p> <p>Grant Date: 2020-10-21</p> <p>Project Area (sq m): 1495.00</p>	Conditional	Construction of an extension to the rear of an existing dwelling. The application will also include the demolishing of an existing domestic garage and rear extension and all associated site works and drainage	147.03	PERMISSION	<p>This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>	No
<p>Project Code: 187155</p> <p>Grant Date: 2019-07-01</p> <p>Project Area (sq m): 1364.30</p>	Conditional	Development of 6 no. dwellings at Weavers Row, Moate Co. Westmeath. The proposed development comprises of the demolition of the existing semi-detached cottage, the construction of 2no 1 storey 2-bedroom bungalows, 4 no. two storey semi-detached 3-bedroom dwellings and all associated site works.	132.35	PERMISSION	<p>This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites.</p> <p>The consent process for this project was subject to applicable EIA and AA requirements.</p>	No
<p>Project Code: 22223</p> <p>Grant Date:</p>	Conditional	consisting of alteration to the two bungalows previously granted under planning permission reference 18/7155, to include relocation of the front entrance door to the east side of the dwelling, addition of a utility to the	132.35	PERMISSION	<p>This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment.</p> <p>Considering the above, in combination with the lack of any</p>	No

Project details	Decision	Description	Distance from proposed development (m)	Status	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant in-combination effects
2022-07-19 Project Area (sq m): 1312.80		rear, and the consequent changes to elevations, internal floor layout and driveway, and all associated site works			potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites. The consent process for this project was subject to applicable EIA and AA requirements.	
Project Code: 187153 Grant Date: 2018-11-05 Project Area (sq m): 434.80	Conditional	Proposed change of use of part of existing retail space so as to provide a wine, beer & spirits off license at existing retail unit and all ancillary works	108.79	PERMISSION	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects that will be in keeping with the context and character of the surrounding environment. Considering the above, in combination with the lack of any potential for effects on European sites arising from the proposed development, it is not considered that there is any potential for significant in-combination effects on any European sites. The consent process for this project was subject to applicable EIA and AA requirements.	No

4. Conclusion

This Appropriate Assessment Screening Report has considered potential effects which may arise during the construction and operational phases as a result of the development of the proposed Serviced Sites at Clara Road, Moate. Through an assessment of the potential sources and potential pathways for significant effects; an evaluation of the project characteristics; taking account of the processes involved and the distance of separation from European sites, it has been evaluated by this report, which intends to inform the competent authority on the Appropriate Assessment process, that there is no likelihood of significant effects occurring on the Qualifying Interests, Special Conservation Interests or The Conservation Objectives of any designated European site as a result of the implementation of the proposed development.

Given its small scale, temporary timeline, and its nature in the context of the local environment setting, and the nature and context of the other plans and projects identified in this report; the proposed development is not foreseen to have any likelihood for significant in-combination effects arising from any other plans or projects.

It is concluded by this AA Screening Report that the proposed development is not foreseen to have any likelihood of significant effects on any European sites, alone or in combination with other plans or projects – and therefore any potential for significant effects on any European site as a result of the proposed development can be ruled out. This conclusion is made in view of the Conservation Objectives of the habitats or species for which these sites have been designated. Consequently, this report informs the competent authority undertaking the Appropriate Assessment process that the proposed development does not need to be subject to Stage Two Appropriate Assessment and a Natura Impact Statement is not required for it.

Appendix I Background information on European sites⁴³

Site code	Site name	Qualifying feature ⁴⁴	Pressure codes	Known threats and pressures
000216	River Shannon Callows SAC	Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0], Limestone pavements [8240], <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410], Otter (<i>Lutra lutra</i>) [1355], Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>) [6510], Alkaline fens [7230]	A04.01, B02.02, A04.02.05, F03.01, J02.05.02, D01.01, J02.11, G01, A08, K03.04, G05.01, A10.01, A03.03, B06, J02.01, C01.03.02, A04.03, A03, J02.05, A07, J02.04.01	Intensive grazing, forestry clearance, non-intensive mixed animal grazing, hunting, modifying structures of inland water courses, paths, tracks, cycling tracks, siltation rate changes, dumping, depositing of dredged deposits, outdoor sports and leisure activities, recreational activities, fertilisation, predation, trampling, overuse, removal of hedges and copses or scrub, abandonment or lack of mowing, grazing in forests or woodland, landfill, land reclamation and drying out, general, mechanical removal of peat, abandonment of pastoral systems lack of grazing, mowing or cutting of grassland, modification of hydrographic functioning, general, use of biocides, hormones and chemicals, flooding
000440	Lough Ree SAC	Bog woodland [91D0], Alkaline fens [7230], Degraded raised bogs still capable of natural regeneration [7120], Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation [3150], Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0], Active raised bogs [7110], Otter (<i>Lutra lutra</i>) [1355], Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210], Limestone pavements [8240]	B02, A04, E01.03, H02.06, H01.08, D03.01.02, G02.09, G01.01, H06.03, F03.01, L08, I01, A03.03, F02.03, G01.02, A08, J02.11.02, K03.05, J02.04	Forest and plantation management & use, grazing, dispersed habitation, diffuse groundwater pollution due to agricultural and forestry activities, diffuse pollution to surface waters due to household sewage and waste waters, piers or tourist harbours or recreational piers, wildlife watching, nautical sports, thermal heating of water bodies, hunting, inundation (natural processes), invasive non-native species, abandonment or lack of mowing, leisure fishing, walking, horse-riding and non-motorised vehicles, fertilisation, other siltation rate changes, antagonism arising from introduction of species, flooding modifications
000572	Clara Bog SAC	Bog woodland [91D0], Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120], Active raised	A08, X, E03.01, F04, E04.01, D01.01, C01.01.01, J02.10, J01.01, J02.15, A04.03, A05.02, C01.03	Fertilisation, no threats or pressures, disposal of household or recreational facility waste, taking or removal of terrestrial plants, general, agricultural structures, buildings in the landscape, paths, tracks, cycling tracks, sand and gravel quarries, management of aquatic and bank vegetation for drainage purposes, burning down, other human induced changes in hydraulic conditions, abandonment of pastoral systems lack of grazing, stock feeding, peat extraction

⁴³ That have functional connectivity (ecological pathways) to the proposed development area including their Qualifying Interests, known threats and pressures

⁴⁴ Qualifying Feature here represents either Qualifying Interest (in the case of SACs), or Special Conservation Interest (in the case of SPAs)

Site code	Site name	Qualifying feature ⁴⁴	Pressure codes	Known threats and pressures
		bogs [7110]		
000575	Ferbane Bog SAC	Active raised bogs [7110], Depressions on peat substrates of the Rhynchosporion [7150], Degraded raised bogs still capable of natural regeneration [7120]	A02.01, B03, J02.15, C01.01, K02.01, A08, E03.01, C01.03, A10, X, J01.01, E03.03	Agricultural intensification, forest exploitation without replanting or natural regrowth, other human induced changes in hydraulic conditions, sand and gravel extraction, species composition change (succession), fertilisation, disposal of household or recreational facility waste, peat extraction, restructuring agricultural land holding, no threats or pressures, burning down, disposal of inert materials
001831	Split Hills and Long Hill Esker SAC	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) * important orchid sites [6210]	A04.01.01, A04.02.05, A04.02.01, D01.01, K04.01, K02.01	Intensive cattle grazing, non-intensive mixed animal grazing, non-intensive cattle grazing, paths, tracks, cycling tracks, competition (flora), species composition change (succession)
002313	Ballymore Fen SAC	Transition mires and quaking bogs [7140]	I02, H01.03, A03.02, A04.03, A08, A04.02.05	Problematic native species, other point source pollution to surface water, non-intensive mowing, abandonment of pastoral systems lack of grazing, fertilisation, non-intensive mixed animal grazing
002336	Carn Park Bog SAC	Degraded raised bogs still capable of natural regeneration [7120], Active raised bogs [7110]	B02.02, I01, J02.05, I03, J02.01, C01.03.02, D01.01	Forestry clearance, invasive non-native species, modification of hydrographic functioning, general, introduced genetic material, gmo, landfill, land reclamation and drying out, general, mechanical removal of peat, paths, tracks, cycling tracks
002337	Crosswood Bog SAC	Active raised bogs [7110], Degraded raised bogs still capable of natural regeneration [7120]	A05.02, B02.02, J01, E03.01, J02.05, D01.01, I03, J02.01, I01, C01.03.02	Stock feeding, forestry clearance, fire and fire suppression, disposal of household or recreational facility waste, modification of hydrographic functioning, general, paths, tracks, cycling tracks, introduced genetic material, gmo, landfill, land reclamation and drying out, general, invasive non-native species, mechanical removal of peat
004064	Lough Ree SPA	Teal (<i>Anas crecca</i>) [A052], Mallard (<i>Anas platyrhynchos</i>) [A053], Coot (<i>Fulica atra</i>) [A125], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Goldeneye (<i>Bucephala clangula</i>) [A067], Little Grebe (<i>Tachybaptus ruficollis</i>) [A004], Common tern (<i>Sterna hirundo</i>) [A193], Lapwing (<i>Vanellus vanellus</i>) [A142], Common Scoter (<i>Melanitta nigra</i>) [A065], Wetland and Waterbirds [A999], Shoveler (<i>Anas clypeata</i>) [A056], Whooper Swan	F03.01, B, G01.01, F02.03, A04, G01.02, I01, A08	Hunting, silviculture, forestry, nautical sports, leisure fishing, grazing, walking, horse-riding and non-motorised vehicles, invasive non-native species, fertilisation

Site code	Site name	Qualifying feature ⁴⁴	Pressure codes	Known threats and pressures
		<i>(Cygnus cygnus)</i> [A038], Wigeon (<i>Anas penelope</i>) [A050], Tufted Duck (<i>Aythya fuligula</i>) [A061]		
004096	Middle Shannon Callows SPA	Black-tailed Godwit (<i>Limosa limosa</i>) [A156], Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179], Wetland and Waterbirds [A999], Lapwing (<i>Vanellus vanellus</i>) [A142], Corncrake (<i>Crex crex</i>) [A122], Golden Plover (<i>Pluvialis apricaria</i>) [A140], Whooper Swan (<i>Cygnus cygnus</i>) [A038], Wigeon (<i>Anas penelope</i>) [A050]	A04, D01.01, G01.02, A08, G01.01, F03.01, D01.05, E01, A04.03, A03, F02.03	Grazing, paths, tracks, cycling tracks, walking, horse-riding and non-motorised vehicles, fertilisation, nautical sports, hunting, bridge, viaduct, urbanised areas, human habitation, abandonment of pastoral systems lack of grazing, mowing or cutting of grassland, leisure fishing

Appendix II Qualifying Interests of SACs that have undergone assessment⁴⁵

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
[1355]	Otter (<i>Lutra lutra</i>)	There are no pressures facing this species	Xxp, Xxt	No pressures, no threats	Surface and marine water dependent. Moderately sensitive to hydrological change. Sensitivity to pollution.
[3150]	Natural eutrophic lakes with Magnopotamion or Hydrocharition - type vegetation	Most of the pressures on this habitat are as a result of pollution from agriculture, forestry activities and wastewater.	A25, A26, B23, C05, F11, F12, F13, K04, K05	Agricultural activities generating point source pollution to surface or ground waters, agricultural activities generating diffuse pollution to surface or ground waters, forestry activities generating pollution to surface or ground waters, peat extraction, pollution to surface or ground water due to urban runoffs, discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water, plants, contaminated or abandoned industrial sites generating pollution to surface or ground water, modification of hydrological flow, physical alteration of water bodies	Surface and groundwater dependant. Highly sensitive to hydrological changes. Highly sensitive to pollution.
[6210]	Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>)* important orchid sites)	The significant pressures related to this habitat are mainly associated with agricultural intensification causing loss of species-rich communities, or abandonment of farmland resulting in succession to scrub.	A02, A09, A10, C01, I02, I04	Conversion from one type of agricultural land use to another (excluding drainage and burning), intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), other invasive alien species (other than species of union concern), problematic native species	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[6410]	Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)	The main pressures on the habitat are associated with agricultural intensification (e.g., land drainage, fertiliser application), under-grazing and forestry.	A02, A06, A10, A14, A31, B01	Conversion from one type of agricultural land use to another (excluding drainage and burning), abandonment of grassland management (e.g., cessation of grazing or of mowing), extensive grazing or under grazing by livestock, livestock farming (without grazing), drainage for use as agricultural land,	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.

⁴⁵ Including known treats and pressures and sensitivities of qualifying interests

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
				conversion to forest from other land uses, or afforestation (excluding drainage)	
[6510]	Lowland hay meadows (<i>Alopecurus pratensis</i> , <i>Sanguisorba officinalis</i>)	The main pressures associated with this habitat are due to agricultural intensification (fertiliser application) and changes in agricultural practices.	A02, A06, A14, A19, A20	Conversion from one type of agricultural land use to another (excluding drainage and burning), abandonment of grassland management (e.g., cessation of grazing or of mowing), livestock farming (without grazing), application of natural fertilisers on agricultural land, application of synthetic (mineral) fertilisers on agricultural land	Changes in management such as grazing regime. Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[7110]	Active raised bogs	The main pressures on active raised bog are peat extraction, drainage, afforestation and burning.	A11, B01, C05, K02, N01	Burning for agriculture, conversion to forest from other land uses, or afforestation (excluding drainage), peat extraction, drainage, temperature changes (e.g., rise of temperature & extremes) due to climate change	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
[7120]	Degraded raised bogs still capable of natural regeneration	The main pressure on degraded bogs come from peat extraction, drainage, afforestation and burning.	A11, B01, C05, K02, N01	Burning for agriculture, conversion to forest from other land uses, or afforestation (excluding drainage), peat extraction, drainage, temperature changes (e.g., rise of temperature & extremes) due to climate change	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
[7140]	Transition mires and quaking bogs	The main pressures facing transition mires in Ireland are afforestation, water pollution, drainage and hydrological changes with grazing/agricultural management also being a pressure.	A06, A09, B01, C05, J01, K01, K02, K04, L02	Abandonment of grassland management (e.g., cessation of grazing or of mowing), intensive grazing or overgrazing by livestock, conversion to forest from other land uses, or afforestation (excluding drainage), peat extraction, mixed source pollution to surface and ground waters (limnic and terrestrial), abstraction from groundwater, surface water or mixed water, drainage, modification of hydrological flow, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices)	Surface water interactions. Groundwater isolated system with sensitivities related to the bog basin. Drainage and land use management are the key things.
[7150]	Depressions on peat substrates of the Rhynchosporion	The main pressures on the habitat are associated with impacts on the supporting bog habitats, especially overgrazing,	A09, A11, B01, C05, K02, N01	Intensive grazing or overgrazing by livestock, burning for agriculture, conversion to forest from other land uses, or afforestation (excluding drainage), peat extraction, drainage, temperature changes (e.g., rise of	Surface and ground water interactions. Drainage and land use management are the key things.

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
		burning, peat extraction, drainage and conversion to forestry.		temperature & extremes) due to climate change	
[7230]	Alkaline fens	The main pressures facing this habitat are land abandonment (and associated succession), overgrazing, drainage and pollution.	A06, A09, A26, J01, K01, K02, K04, L02, N02, N03	Abandonment of grassland management (e.g., cessation of grazing or of mowing), intensive grazing or overgrazing by livestock, agricultural activities generating diffuse pollution to surface or ground waters, mixed source pollution to surface and ground waters (limnic and terrestrial), abstraction from groundwater, surface water or mixed water, drainage, modification of hydrological flow, natural succession resulting in species composition change (other than by direct changes of agricultural or forestry practices), temperature changes (e.g., rise of temperature & extremes) due to climate change, increases or changes in precipitation due to climate change	Surface and groundwater dependent. Highly sensitive to hydrological changes. Inappropriate management.
[8240]	Limestone pavements	The main pressures facing this habitat are associated with conversion to agricultural land and housing construction, as well as scrub encroachment caused by under-grazing.	A01, A10, C01, F01, I02	Conversion into agricultural land (excluding drainage and burning), extensive grazing or under grazing by livestock, extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), conversion from other land uses to housing, settlement or recreational areas (excluding drainage and modification of coastline, estuary and coastal conditions), other invasive alien species (other than species of union concern)	Erosion, overgrazing and recreation.
[91D0]	Bog woodland	Pressures facing this habitat are related to drainage, invasive species and burning.	A11, B09, C05, I02, K01	Burning for agriculture, clear-cutting, removal of all trees, peat extraction, other invasive alien species (other than species of union concern), abstraction from groundwater, surface water or mixed water	Changes in management. Changes in nutrient or base status. Introduction of alien species.
[91E0]	Alluvial forests with Alder and Ash (<i>Alnus glutinosa</i> , <i>Fraxinus</i>)	Many of the pressures facing this habitat include invasive species, particularly sycamore (<i>Acer pseudoplatanus</i>), beech (<i>Fagus sylvatica</i>), Indian balsam	B09, I02, I04, I05	Clear-cutting, removal of all trees, other invasive alien species (other than species of union concern), problematic native species, plant and animal diseases, pathogens and pests	Surface and groundwater dependent. Highly sensitive to hydrological changes. Changes in management.

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
	<i>excelsior, Alno-Padion, Alnion incanae, Salicion albae)</i>	<i>(Impatiens glandulifera)</i> and currant species (<i>Ribes nigrum</i> and <i>R. rubrum</i>) as well as some native species such as brambles (<i>Rubus fruticosus</i> agg.) and common nettle, along with over felling.			

Appendix III Special Conservation Interests of SPAs that have undergone assessment⁴⁶

Species code	Common name	Scientific name	Threats and pressures codes	Known threats and pressures
A050	Eurasian Wigeon	<i>Anas penelope</i>	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
A056	Northern Shoveler	<i>Anas clypeata</i>	C03, F03, G01, H01, H03, H07	Renewable abiotic energy use, hunting and collection of wild animals (terrestrial), outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish), marine water pollution, other forms of pollution
A061	Tufted Duck	<i>Aythya fuligula</i>	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
A067	Common Goldeneye	<i>Bucephala clangula</i>	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
A122	Corn Crake	<i>Crex crex</i>	A03.01, A04.01, K03.04, M01.03	Intensive mowing or intensification, intensive grazing, predation, flooding and rising precipitations
A125	Eurasian Coot	<i>Fulica atra atra</i>	C03, G01, H01	Renewable abiotic energy use, outdoor sports and leisure activities, recreational activities, pollution to surface waters (limnic & terrestrial, marine & brackish)
A140	European Golden Plover	<i>Pluvialis apricaria</i>	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
A142	Northern Lapwing	<i>Vanellus vanellus</i>	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
A179	Black-Headed Gull	<i>Larus ridibundus</i>	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

⁴⁶ Including known treats and pressures of SCIs

Species code	Common name	Scientific name	Threats and pressures codes	Known threats and pressures
A193	Common Tern	<i>Sterna hirundo</i>	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

Appendix IV Conservation Objectives⁴⁷

NPWS (2022) Conservation Objectives for River Shannon Callows SAC [IE0000216] Version 1.

NPWS (2016) Conservation Objectives for Lough Ree SAC [IE0000440] Version 1.

NPWS (2016) Conservation Objectives for Clara Bog SAC [IE0000572] Version 1.

NPWS (2015) Conservation Objectives for Ferbane Bog SAC [IE0000575] Version 1.

NPWS (2018) Conservation Objectives for Split Hills and Long Hill Esker SAC [IE0001831] Version 1.

NPWS (2018) Conservation Objectives for Ballymore Fen SAC [IE0002313] Version 1.

NPWS (2015) Conservation Objectives for Carn Park Bog SAC [IE0002336] Version 1.

NPWS (2016) Conservation Objectives for Crosswood Bog SAC [IE0002337] Version 1.

NPWS (2022) First Order Site-specific Conservation Objectives for Lough Ree SPA [IE0004064] Version 1.

NPWS (2022) Conservation Objectives for Middle Shannon Callows SPA [IE0004096] Version 1.

⁴⁷ NPWS/Department of Culture, Heritage and the Gaeltacht

Appendix V Contributor details

Author - Callum O'Regan is an ecologist who holds a B.Sc. degree in Zoology from University College Cork and obtained a Master's degree in Conservation Behaviour from Galway-Mayo Institute of Technology in 2021. Callum has skills in data management and analysis, report writing and mapping. Callum has also worked on the fieldwork for and preparation of a number of reports including Ecological Impact Assessments (EclAs) and Appropriate Assessment Screenings for private and public projects of various sizes and complexities.

Supervisor - Karen Dylan Shevlin is an ecologist with over 9 years' experience working in multiple capacities in ecology in Irish and international research institutions and organisations, and holds a MSc degree in Biodiversity and Conservation from Trinity College Dublin (2013). Karen has significant skills in leading ecological surveys of bats, birds, insects, habitats and mammals and data analysis, mapping and compiling reports. Karen has worked on producing AA screenings, NISs, and EIARs for a range of public and private projects ranging from smaller facilities upgrades projects to major wind turbine sites. Karen is also a specialist in ecological theory and the impacts/effects that altering natural dynamics may have on the surrounding environment. This combination of skills and knowledge provides the backbone of the assessment process, and ensure that all of the baseline and detailed data gathered in the field is interpreted in a manner that is grounded in best scientific knowledge.

Reviewer - Paul Fingleton has an MSc in Rural and Regional Resources Planning (with specialisation in EIA) from the University of Aberdeen. Paul is a member of the International Association for Impact Assessment as well as the Institute of Environmental Management and Assessment. He has over twenty-five years' experience working in the area of Environmental Assessment. Over this period, he has been involved in a diverse range of projects including contributions to, and co-ordination of, numerous complex EIARs and EIA screening reports. He has also contributed to and supervised the preparation of numerous AAs and AA screenings.

Paul is the lead author of the current EPA Guidelines and accompanying Advice Notes on EIARs. He has been involved in all previous editions of these statutory guidelines. He also provides a range of other EIA related consultancy services to the EPA. Paul is regularly engaged by various planning authorities and other consent authorities to provide specialised EIA advice.