Appropriate Assessment Screening Report

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

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for proposed

Traffic Calming Measures on the Old Killaloe Bridge, Killaloe, Co Clare

at

Killaloe, Co. Clare

by

CAAS Ltd

for

Clare County Council
&
Tipperary County Council

COMHAIRLE CONTAE AN CHLÁIR
CLARE COUNTY COUNCIL

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[1] See Appendix IV for contributor competencies

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1 Introduction

1.1. Background

CAAS has been appointed by Clare County Council and Tipperary County Council to prepare this Appropriate Assessment Screening Report (AASR) for the proposed trail pedestrianisation of Killaloe Bridge ('the proposed scheme) under Section 38 of the Roads Act, to facilitate pedestrian and cycle access. This report has been prepared to assist the Council in assessing whether the proposed scheme should be subject to AA and whether a Natura Impact Statement (NIS) should be prepared for it. An overview of the AA process and its legislative background is provided in Appendix III.

1.2. Report structure

This report sets out an overview of the methodology used for this assessment. It then describes the proposed scheme including any associated works, followed by a description of receiving environment of the lands to which the proposed scheme relates, and any relationships to European sites. Subsequently the factors that determine which European sites are included in the report are described and the selected European sites are identified.

The proposed scheme and its potential sources for effect are then examined in the context of the receiving environment, connectivity to the relevant European site and their sensitive ecological features. Following this, as part of the screening for AA, the metrics for the assessment of a 'likelihood of significant effect' of these potential effects are applied to each of the European sites identified, with support from scientific literature where relevant. Subsequently, sites that are identified as having a likelihood for significant effects advanced to the next stage of the assessment process and a Natura Impact Statement is advised where mitigation measures need to be applied to prevent adverse effects to European sites.

The potential for significant effects to be increased or presented independently when the proposed project is considered in-combination with effects arising from other plans and/or projects is also taken into account as part of this report.

The assessment is undertaken in view of the Conservation Objectives, known sensitivities and threats and pressures on the Qualifying Interests and Special Conservation Interests for each European site, which are provided in Appendix II. Appendices III and IV provide supporting information on the AA process and the legislative background, and author competencies respectively.

2 Methodology

2.1. AA Screening overview

Screening for AA identifies any likely significant effects on European sites arising from the project (for the purposes of this report, the "project" is herein referred to as the "proposed scheme"), either alone or in combination with other projects or plans. The proposed scheme and receiving environment of the proposed scheme are examined in order to determine:

- Whether the 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.

The proposed scheme is not directly connected with or necessary to the management of a European site and therefore will be considered as to whether it may have a potentially significant effect on any European site in screening for AA.

2.2. Relevant guidance

This AASR is prepared in line with the relevant legislation (ref s1.3), is based on best scientific knowledge, and has utilised ecological expertise, with consideration of the relevant guidance, including the following:

- *Practice Note PN01: Appropriate Assessment Screening for Development Management,* Office of the Planning Regulator, 2021;
- *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;
- *Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC",* European Commission 2018; and
- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities,* Department of the Environment, Heritage and Local Government, 2009.

2.3. Assessment methodology

See Appendix III for an overview of the legislative context for this report, the Habitats Directive, and the AA process.

2.3.1. Desktop review

The desktop review provides supporting information for conducting the SPR model, and establishing a ZoI. The identification of the "'Conservation Objectives" (COs), "Qualifying Interests" (QIs) and/or "Special Conservation Interests" (SCIs) of European sites requiring assessment as part of this review, is an integral part of the screening for AA process.

QIs are the habitats and species (flora and fauna) listed in Annexes I and II of the Habitats Directive respectively, for which each Special Area of Conservation (SAC) has been designated 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 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 COs of each site, are considered as part of the assessment.

The COs or Site-Specific Conservation Objectives (SSCOs) for each site aim to achieve and maintain the favourable conservation status[2] for a particular habitat or species at that site. COs define the

[2] 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*'.

requirements for the favourable conservation condition of the QIs or SCIs at a given European site by setting targets for attributes which define the healthy characteristics of a given habitat or species.

Note: where detailed SSCOs have not been prepared for any European site, the below First Order Site-specific Conservation Objectives apply:

European site type	First Order Site-specific Conservation Objective[3]
SAC	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
SPA	To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for the SPA

The following databases are utilised in the preparation of this AASR: the National Biodiversity Data Centre[4]; the NPWS[5]; the EPA[6]; 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). Based on these resources, the desktop review is also comprised of the following elements:

- Identification of European sites within one or several zones of Influence (as defined in s 2.3.3) established using the source -pathway-receptor model (as defined in s 2.3.2);
- Review of the NPWS site synopses and Conservation Objectives for European sites within the zone(s) of influence for which potential pathways from the proposed scheme area have been identified; and
- Examination of available data on protected species' and habitats' distribution, trends and abundances – where relevant.

Supporting information on threats to individual sites and vulnerability of habitats and species is also reviewed in the following documents where relevant:

- 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 Synopses[7]; and
- NATURA 2000 Standard Data Forms[13].

2.3.2. Source-pathway-receptor model

The assessment of potential for significant effects on European sites is conducted following a standard source-pathway-receptor (SPR) model, where, in order for an effect to be established, all three elements of this mechanism must be in place. EC guidance[8] outlines the types of effects that may affect European sites. These include effects from the following activities:

[3] NPWS Conservation Management Planning website.

[4] NBDC datasets available here

[5] NPWS European sites information and mapping available here and here respectively

[6] EPA datasets available here

[7] NPWS (2019); NPWS Database of protected site data and associated documents for each European site; available here. Accessed March 2025

[8] 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

- Land take
- 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

This guidance is taken into consideration when applying the SPR model to this AASR.

Examples of a source, pathway and receptor are:

- Source(s) – e.g., pollutant run-off from proposed scheme
- Pathway(s) – e.g., groundwater connecting to nearby qualifying wetland habitats; and,
- Receptor(s) – e.g., qualifying habitats and species of European sites

Thus, in the context of this report, a receptor is a QI or SCI, or an ecological feature that is known to be utilised by the QIs or SCIs of a European site. A source is any identifiable element of the proposed scheme that is known to interact with the QI, SCI, or any ecological processes underpinning a QI or SCI. A pathway is any connection or link between the source and the receptor[9], for example a river.

When all three elements of the SPR model are in place, a pathway for potential effect is identified to that European site. The pathway, receptor and source for effect are then examined further by conducting a desktop review, in the context of the receiving environment and the characteristics of the proposed scheme, in order to establish a Zone of Influence for potential significant effects.

2.3.3. Zone of Influence

The Zone of Influence (ZoI) (as defined in the relevant guidance[10,11]) is informed by the SPR model and is the geographical area over which a proposed project could affect the ecological receiving environment in any way that could result in potential significant effects on the Qualifying Interests or Special Conservation Interests of a given European site, in view of the Conservation Objectives of each site.

2.3.4. Characterising potential significant effects

The terms used to characterise potential effects[12] in this report are as follows: -

- Direct and Indirect Impacts: An impact can be caused either as a direct or as an indirect consequence of a Plan/Project.
- Extent: the spatial or geographical area over which the impact/effect may occur under a

[9] Receptor example: a Qualifying Interest or Special Conservation Interest of the European site in question in the context of their known sensitivities and Conservation Objectives

[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 1.3, updated September 2024. Chartered Institute of Ecology and Environmental Management, Winchester.

[12] Terms and parameters 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 1.3, updated September 2024. Chartered Institute of Ecology and Environmental Management, Winchester; and,

suitably representative range of conditions (e.g. noise transmission under water).

- Magnitude: the size, amount, intensity and volume of an impact/effect. Magnitude is quantified where possible and expressed in absolute or relative terms (e.g. the amount of habitat lost, percentage change to habitat area, percentage decline in a species population).
- Duration: defined in relation to ecological characteristics (such as the lifecycle of a species) as well as human timeframes (e.g., five years, may be short-term in the human context or other long-lived species, but would span at least five generations of some invertebrate species). In addition, the duration of an activity may differ from the duration of the resulting effect caused by the activity (e.g., if short-term construction activities cause disturbance to birds during their breeding period; longer-term implications could be failure to reproduce that season). The Duration of impacts and effects may be described as the following, defined in months/years:
    - Short
    - Medium
    - Long-Term and Permanent, or
    - Temporary.

- Frequency: The number of times that an activity or impact occurs. This will influence the magnitude and/or duration of the resulting effect (e.g., a single person walking a dog will have very limited impact on nearby waders using wetland habitat, but numerous walkers will subject the waders to frequent disturbance and could affect feeding success, leading to displacement of the birds and knock-on effects on their ability to survive).
- Timing: The timing of an activity or change may result in an impact, or have different magnitude of impact if it occurs at different times of a given year versus others (e.g., if it coincides with critical life-stages such as a bird species bird nesting season)
- Reversibility: An irreversible effect is one from which recovery is not possible within a reasonable timescale or there is no reasonable chance of action being taken to reverse it. A reversible effect is one from which spontaneous recovery is possible or which may be counteracted by mitigation. It is possible that certain activities can cause both reversible and irreversible effects.

2.3.5. Assessment of significant effects

The CIEEM (2018)[11] guidelines for Ecological Impact Assessment define an ecologically significant effect based on a variety of questions and factors, such as:

- for designated sites – is the project and associated activities likely to undermine the conservation objectives of the site, or positively or negatively affect the conservation status of species or habitats for which the site is designated, or may it have positive or negative effects on the condition of the site or its interest/qualifying features?
- for ecosystems – is the project likely to result in a change in ecosystem structure and function?

The guidance also recommends that consideration should be given to whether:

- any processes or key characteristics will be removed or changed
- there will be an effect on the nature, extent, structure and function of component habitats
- there is an effect on the average population size and viability of component species.

The OPR Guidance[13] on conducting Appropriate Assessment for developments defines likely significant effects as the following:

Likely means a risk or possibility of effects occurring that cannot be ruled out based on objective information.
Significant effects are those that would undermine the conservation objectives of the European sites, either alone or in-combination with other plans and projects. The significance of ecological impacts depends on:

- the ecological characteristics of the species or habitat, including their structure, function, conservation status and sensitivity to change, and/or
- the character, magnitude, duration, consequences and probability of the impacts occurring.

When the SPR models is conducted and the Zone of Influence is established; European sites (and their respective QIs and SCIs) that occur within this zone are examined with supporting surveys conducted, if necessary, to ultimately determine whether or not there is a *likelihood of significant effect* on a given European site. This is carried out by assessing objective information such as: the nature of the source for effect; the nature of the pathway; the distances involved; the QIs/SCIs (or 'receptors') involved, their threats, pressures and sensitivities; and consulting best scientific evidence/literature when required.

As such, the presence of all three elements and the identification of a pathway for potential effect, does not automatically constitute the likelihood of significant effect to a European site, and is dependent on factors such as character, magnitude, duration etc. However, the absence or removal of one of the elements of the mechanism is sufficient to conclude that there is no potential effect(s) and thus no further consideration required.

Where a likelihood for significant effects to any European site is established to be present, and/or the lack of significant effect cannot be ruled out based on the precautionary principle[14], mitigation measures are required and the project must proceed to Stage 2 AA, where a Natura Impact Statement (NIS) is compiled in order to prevent adverse effects to the QIs/SCIs of the European sites involved, in view of their Conservation Objectives.

3 The proposed scheme

3.1. Proposed scheme description

The proposed scheme comprises of the proposed traffic calming measures on the Old Killaloe bridge, , Killaloe, Co. Clare which links Killaloe Town , Clare with Ballina Town Co. Tipperary (Figure 3.1). These measures involve a trial pedestrianisation of the Old Killaloe Bridge to prevent access onto the bridge by vehicles and to facilitate the safe use of the bridge by pedestrians and cyclists.

The scheme details described in the Sections 38 details including Killaloe Bridge detail drawing. Key elements are of the proposed scheme are:

- Changes to road surfacing and markings
- Changes to road signage and traffic signals

The area over which the measures will extend is approximately 0.2 ha. The measures are subject to a

[13] OPR (2021). Practice Note PN01 on Appropriate Assessment Screening for Development Management.
[14] With regard to Article 6(3) of the Habitats Directive, and case law C127/02 Waddenzee

consent process under Section 38 of the Road Traffic Act, 1994 as amended. The consent will cover a trial period which will take place between 8am Monday, 28th July 2025 and 6pm Friday, 17th October 2025.

3.2. Drainage (wastewater and surface water)

There will be no change to existing, or implementation of new, surface water drainage infrastructure as a result of the proposed scheme. There will also be no change to hard surface area in the operational phase of the proposed scheme. Similarly, there will be no change to existing, or implementation of new, wastewater infrastructure as a result of the proposed scheme (Figure 3.1)

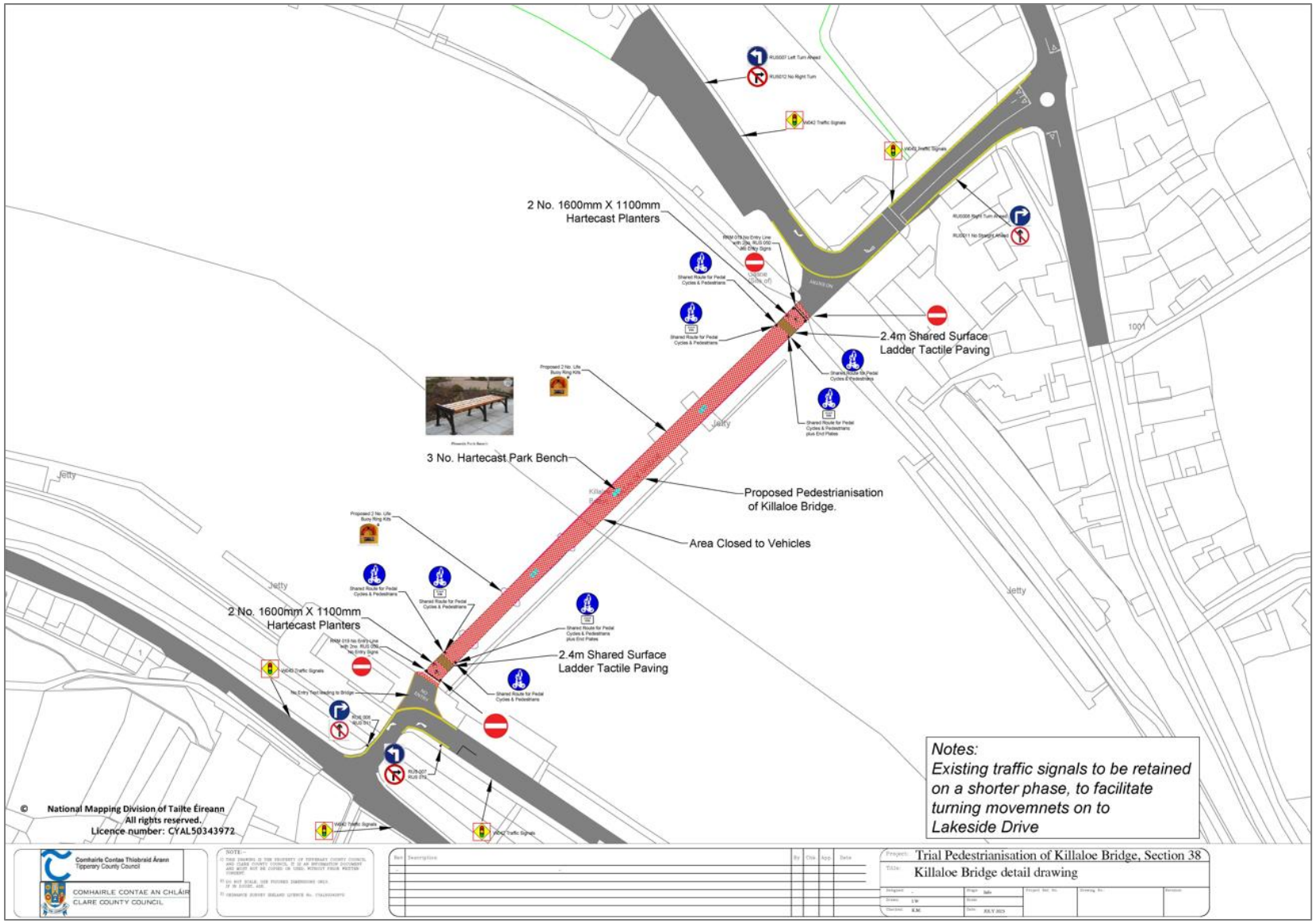


Figure 3.1 Plan for the proposed scheme

4 The receiving environment

4.1. Overview

The proposed scheme site is located in just south of Lough Derg, along the Killaloe bridge which crosses the River Shannon and connects the towns of Killaloe to Ballina (Figure 4.1). The proposed scheme site is composed completely of hard surface and is currently used for vehicular, cyclist and pedestrian access between both towns. A new bridge connecting Killaloe and Ballina has been constructed to the south of both towns, in order to facilitate a bypass of Killaloe town and alleviate vehicular traffic congestion within the town and across the proposed scheme area. The wider environment surrounding the proposed site is a mix of town centre/retail, residential. Killaloe and Ballina towns are surrounded by agricultural lands of mixed use.

4.2. Hydrology

The Lower River Shannon (25_191_106) crosses underneath the proposed Killaloe bridge (Figure 4.2). This waterbody is also classed as a lake by the EPA due to its proximity to Lough Derg. This waterbody has the WFD status[15] of "moderate" just north of the proposed scheme area, and "Good" just south of the proposed scheme area (i.e., downstream). Therefore, there is a hydrological connection between the proposed scheme area and this river via surface water drainage and dust.

4.3. Flood risk

As the proposed scheme site is a bridge over the substantial Lower River Shannon, it does occur within an area at risk of flooding according to the Geological Survey of Ireland's (GSI) flood risk mapping[16].

4.4. Relationship to European sites

The proposed site does occur adjacent to the Lower River Shannon SAC (002165) (Figure 4.3). There are no Annex I habitats within the proposed scheme site. There is surface hydrological connectivity between the proposed site and this SAC via surface water drainage and dust.

[15] Waterbodies in Ireland reporting WFD Risk 2ND Cycle 2016-2021. The Environmental Protection Agency, available here.
[16] GSI Flood risk mapping available here. Accessed: July 2025

Figure 4.1 Proposed scheme boundary

Figure 4.2 Surface watercourses in the vicinity of the proposed scheme[17]

[17] Source: EPA datasets. Accessed July 2025

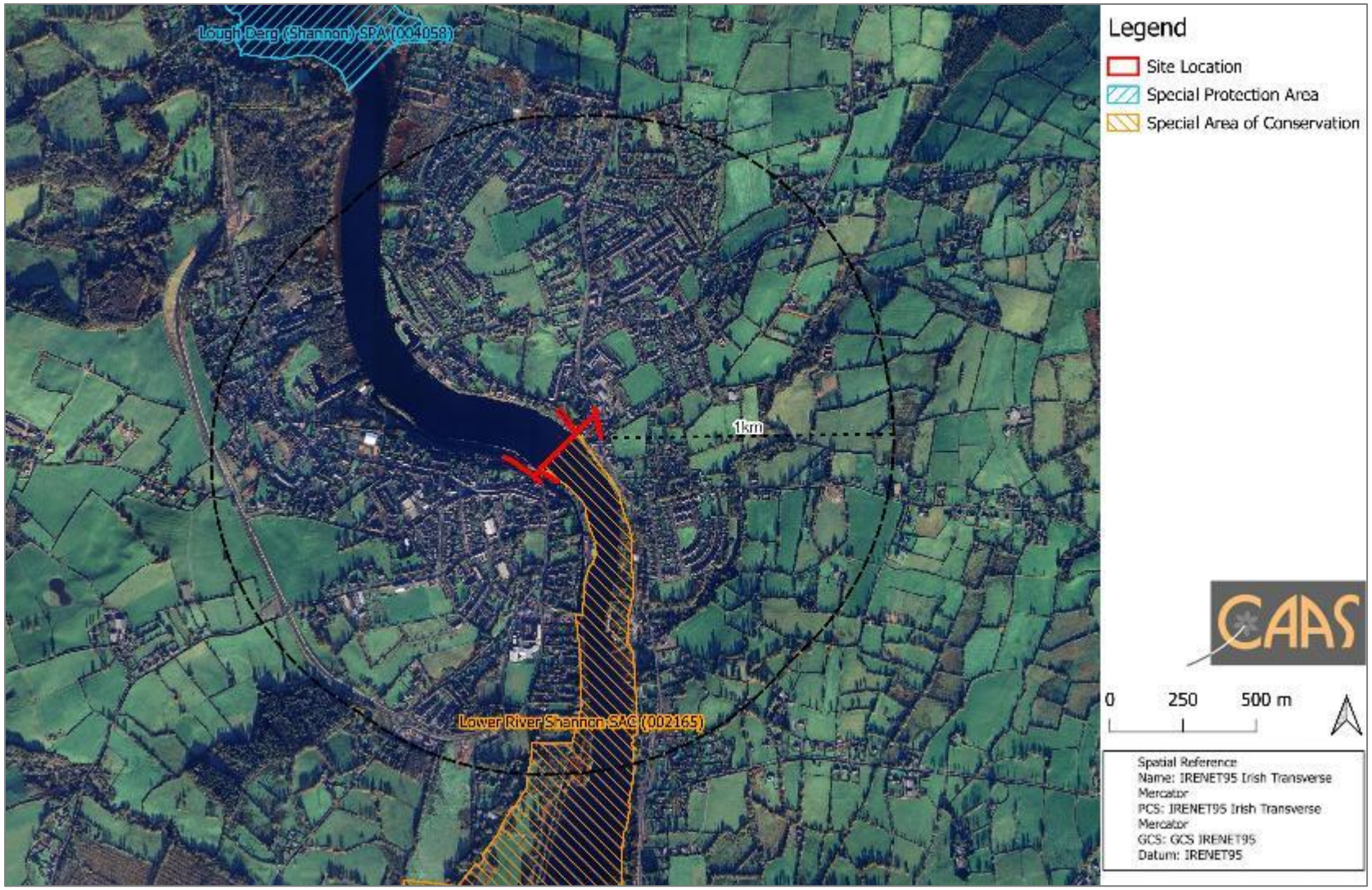


Figure 4.3 European sites in the vicinity of the proposed scheme[18]

[18] NPWS European sites information and mapping available here and here respectively. Accessed July 2025

5 Identification of relevant European sites

5.1. Source-pathway-receptor model

Pathways for potential significant effects

The proposed site does have surface hydrological connectivity to the Lower River Shannon via surface water drainage and dust in the air. There will be no changes to wastewater infrastructure as part of the proposed scheme and thus there are no pathways for effect in this regard. There will also be no loss of vegetated habitats as a result of the proposed scheme. Regarding pathways for noise disturbance to ex-situ foraging SCI species that could utilise surrounding agricultural lands; considering the small scale and location of the proposed scheme within a town centre which has ongoing levels of human noise disturbance, there are no pathways for disturbance to any SCI populations potentially utilising nearby agricultural lands for foraging.

Therefore, considering the nature of the proposed scheme and the receiving environment, and the relationship to European sites (as described in S 4), the following pathway has been identified:

- Suburban drainage with connectivity into the Lower River Shannon which connects to the Lower River Shannon SAC and Inner Galway Bay SPA, both of which are hydrologically sensitive European sites (Appendix II) and within 200m of to the proposed scheme site.

Sources for potential significant effects

There is a potential source with a pathway for effects via surface run off from the proposed scheme area in the construction phase into underground urban drainage connecting to the Lower River Shannon and the European site therein. The construction phase includes localised alterations, which involve minimal civil works.in the construction phase of the civil works

Surface water drainage during the operational phase will be connected to existing gullies and drainage infrastructure (with no alterations to existing infrastructure) and there will be no change in hard surface area as a result of the proposed scheme. There will also be no changes to or requirement for new wastewater drainage infrastructure as a result of the proposed scheme. There is the possibility of pollution from displacement effects from vehicular traffic moving from the proposed scheme area to the new Killaloe Bypass/ Shannon Bridge Crossing /R494 which has recently been constructed to relieve traffic in Killaloe town centre and is located approximately 95 m downstream of the proposed scheme[19].

Therefore, considering the nature of the proposed scheme and the receiving environment, and the relationship to European sites (as described in S 4), and the pathway for effects identified between the proposed scheme site and the Lower River Shannon SAC; the potential source for effects on these European sites as a result of the proposed scheme is:

- Surface water drainage and dust from localised alterations proposed in this scheme which involve minimal civil works.
- Pollution from displacement effects of vehicular traffic from the proposed scheme area to the new Killaloe Bypass/ Shannon Bridge Crossing /R494.

[19] Information on the new Killaloe Bypass/ Shannon Bridge Crossing /R494 is available here.

5.2. European sites identified for screening assessment

Considering the nature and size of the proposed scheme, and the proximity to and sensitivities and COs of the European sites identified (Appendix II), a ZoI (Zone of Influence) of 200 m for is considered suitable for potential effects resulting from the proposed scheme. This ZoI compasses the European sites listed in Table 5.1.

Table 5.1 European sites identified for screening assessment

Receptor / European site	Site code	Qualifying interests	Distance (km)	Source(s) for potential effect	Pathway(s) for potential effect	SPR link present?	Screening required?
Lower River Shannon SAC	002165	Sandbanks which are slightly covered by sea water all the time [1110], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Freshwater pearl mussel *(Margaritifera margaritifera)* [1029], Sea lamprey *(Petromyzon marinus)* [1095], Brook lamprey *(Lampetra planeri)* [1096], River lamprey *(Lampetra fluviatilis)* [1099], Atlantic salmon *(Salmo salar)* [1106], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)* [6410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior *(Alno-Padion, Alnion incanae, Salicion albae)* [91E0], Coastal lagoons [1150], Large shallow inlets and bays [1160], Reefs [1170], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Bottlenose dolphin *(Tursiops truncatus)* [1349], Otter *(Lutra lutra)* [1355], Mediterranean salt meadows *(Juncetalia maritimi)* [1410]	Adjacent	Surface water runoff and dust from localised alterations proposed in this scheme which involve minimal civil works. Pollution from displacement of vehicular traffic from proposed scheme area onto the new Killaloe Bypass/ Shannon Bridge Crossing/ R494	Surface water drainage network during the localised alterations proposed in this scheme which involve minimal civil works. New Killaloe Bypass/ Shannon Bridge Crossing /R494	Yes	Yes

The Conservation objectives for the above European sites that have been considered by this report and the SPR model are included in the following NPWS/Department of Culture, Heritage and the Gaeltacht documents which was utilised in this assessment:

- NPWS (2012) Conservation Objectives for Lower River Shannon SAC [IE0002165] Version 1.

6 Screening of European sites

This section of the report concerns the final stage of the screening process. Information has been collected and is presented on the proposed project, its relationship to European sites, the sensitivity of each relevant European site identified, and potential significant effects on European site resulting from the proposed scheme have been identified, which assumed the absence of any controls, conditions, or mitigation measures, as required in the AA screening process.

The European sites identified by the SPR model as being within a ZoI for significant effects are discussed, in view of their QIs and SCIs and their sensitivities (Appendix II) and assessed for a likelihood of significant effects in Table 6.1 below. Should a likelihood of significant effects be identified for any European site, a Natura Impact Statement (otherwise knowns as Stage 2 AA) will be required.

Table 6.1 Screening for the likelihood for significant effects on European sites

Site code	Site name	Distance (km)	Qualifying feature[20]	Analysis for likely significant effects	Likelihood of significant effects
002165	Lower River Shannon SAC	Adjacent	Sandbanks which are slightly covered by sea water all the time [1110], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Freshwater pearl mussel *(Margaritifera margaritifera)* [1029], Sea lamprey *(Petromyzon marinus)* [1095], Brook lamprey *(Lampetra planeri)* [1096], River lamprey *(Lampetra fluviatilis)* [1099], Atlantic salmon *(Salmo salar)* [1106], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)* [6410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior *(Alno-Padion, Alnion incanae, Salicion albae)* [91E0], Coastal lagoons [1150], Large shallow inlets and bays [1160], Reefs [1170], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Bottlenose dolphin *(Tursiops truncatus)* [1349], Otter *(Lutra lutra)* [1355], Mediterranean salt meadows *(Juncetalia maritimi)* [1410]	Considering the QIs and known sensitivities of this European site (detailed in Appendix II), in the context of the potential effects identified in S5.1, this SAC is sensitive to hydrological interactions via surface water drainage. There are sources for hydrological impacts to the hydrologically sensitive QIs of this due to the possibility of surface water runoff and dust from the civil works via connectivity to the suburban drainage network. Regrading surface water runoff and dust: the project will utilise best practice construction methods that are best practice measures put in place for all new developments, regardless of any relationship to European sites, and are thus not intended to address or reduce potential effects to European sites[21]. In addition, the proposed scheme is for minor scale civil works, with a short-term construction period. There is the possibility of displacement of vehicular traffic into the new Killaloe Bypass/ Shannon Bridge Crossing /R494 south of the proposed scheme area, however the proposed scheme does not propose to increase the volume of vehicular traffic but to provide a new avenue that reduces congestion within Killaloe town centre. In addition, a Nature Impact Statement and EIAR[22] were conducted for the new Killaloe Bypass/ Shannon Bridge Crossing /R494 which concluded that there would be no adverse effects on the Lower River Shannon SAC as a result of the new Killaloe Ballina bypass bridge, and associated displacement of vehicular traffic from Killaloe town onto this bridge. Therefore, based on the project description (s 3), the receiving environment description (s 4), and the examination of potential impact of these sources for effect in view of this SAC's sensitivities and COs; there are no sources with a likelihood for significant effects to this SAC as a result of the proposed scheme, and no further assessment is required.	No

[20] Qualifying feature is used here to represent both Qualifying Interests (of SACs) and Special Conservation Interests (of SPAs)

[21] Case law: (C-721/21 Eco Advocacy CLG)

[22] Documents related to the Killaloe Bypass/ Shannon Bridge Crossing /R494 are aavailable here.

7 In combination effects

7.1. Overview

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 the potential to have significant effects on European sites. Other plans or projects that are currently existing and occur in the surrounding areas of the proposed scheme site were examined for potential in-combination effects based on the following criteria, in the context of the characteristics of the proposed scheme and the receiving environment (as discussed in s 3 and s 4 respectively):

- 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 receiving / surrounding landscape
- Having widely dispersed emissions or far-reaching sources for effects
- Having sources for effects on ecological connectivity.

In addition, projects that have not yet been granted planning permission are also examined in view of the above criteria. As such planning applications to the Local Authority; the Dept of Housing, Local Government and Heritage planning[23] and An Coimisiún Pleanála [24] databases were searched using a radius of 200 m from the proposed scheme boundary, over the past 5 years[25]. All developments in these parameters were considered for potential in-combination effects. The plans and projects that were identified as a result of the above searches are discussed in sections 7.1.1 and s 7.1.2 below respectively.

7.1.1. Plans considered for in-combination effects

- Clare County Development Plan 2023-2029
- Tipperary County Development Plan 2022 – 2028
- Killaloe-Ballina Town Enhancement & Mobility Plan

This above Plans set out the sustainable use and transport plans for the Killaloe area, including the projects that can increase the accessibility of the Killaloe area for pedestrians and cyclists. The proposed scheme is in line with the objectives and aims of the above Plans and does not add any sources for effect that have not already been considered in the environmental assessments associated with the Clare County Development Plan 2023-2029 and the Tipperary County Development Plan 2022 – 2028 and associated lower-level plans. Therefore, it is not foreseen that the proposed scheme will have any likely significant in-combination effects with any provisions or objectives of the above plans.

7.1.2. Projects considered for in-combination effects

There are a number of other proposed schemes in the vicinity including works which are at planning stage or underway on various sites. The database search found that the majority of projects within the area involve alterations of existing structures, small private home extensions and changes of use. Considering the nature of the projects examined, alongside the nature and scale of the proposed

[23] Local Authority planning applications - available here, accessed; July 2025

[24] An Coimisiún Pleanála planning application - available here, accessed; July 2025

[25] 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 are considered as part of the site other than refused and withdrawn applications, as these would not have any in-combination effects

scheme, and the lack of any sources for significant effects presented by the proposed scheme; there are no sources for potential significant in combination effects to any European sites (a full list of the projects examined as part of the in-combination effects assessment is provided in Appendix I).

8 Conclusion

This Appropriate Assessment Screening Report has considered potential effects on European sites which may arise during the construction and operational phases as a result of the implementation of the pedestrianisation of Killaloe Bridge linking Killaloe Town, Co. Clare with Ballina Town Co. Tipperary. 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, that there is no likelihood of significant effects occurring to the Qualifying Interests, Special Conservation Interests or the Conservation Objectives of any designated European site as a result of the implementation of the proposed scheme.

Given the small, localised scale of the proposed scheme, and the nature of the proposed scheme in the context of the local environment, plans and projects; the proposed scheme will not lead to any likely significant effects in-combination with effects arising from any other plans or projects.

It is concluded by this AA Screening Report that the proposed scheme 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 scheme 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, the proposed scheme does not need to be subject to Stage Two Appropriate Assessment and a Natura Impact Statement is not required.

Appendix I Review of planning history[26] in the vicinity of the proposed scheme[27] for purposes of consideration of in-combination effects

The below tables contain the findings of a planning search of Local Authorities and An Coimisiún Pleanála for developments within a radius of 200 m of the site of the proposed scheme in the last 5 years.
Note: projects considered as having no potential of contributing to significant cumulative effects, when considered in combination with effects arising from the subject proposal, have been excluded.

Local Authority planning applications

Project Code	Decision	Description	Grant Date	Project Area (sq m)	Distance from Proposed scheme (m)	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant in-combination effects
22176 Clare County Council	Conditional	the project consists of the conservation works to the detached two storey, four bedroom, sandstone built deanery. Works to include; interior alterations, repair of original windows, repair or replacement of roof tiles and landscaping. The Deanery is a protected structure RPS No 445	2022-05-25	4,051.9	175.42	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. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	No
2012 Clare County Council	Conditional	for the construction of an en-suite classroom extension and a WC toilet along with a ball court and perimeter fence and all ancillary site works	2020-06-05	2,394.9	94.40	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. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	No
2460466 Tipperary	N/A	extension to north side of existing hardware building, retain extension of outdoor storage yard and retain new		9,356.9	5.45	This is a small-scale project with a temporary construction phase and the operational phase will have localised effects	No

[26] The majority of surrounding planning permissions are for developments which are minor projects with no risk of in-combination effects. Therefore, a summary list is provided here of the largest / most relevant proposed project(s) within the below stated parameters (i.e., excluding minor additions or edits to residential homes / existing planning permissions)

[27] Parameters used: planning application from within the last 10 years, within a radius of 200m around the proposed project boundary

Project Code	Decision	Description	Grant Date	Project Area (sq m)	Distance from Proposed scheme (m)	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of potential significant in-combination effects
County Council		advertising sign at entrance to premises and all associated site works				that will be in keeping with the context and character of the surrounding environment. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	
2260495 Tipperary County Council	Conditional	the demolition of existing house and erect a replacement house and garage and connect to existing services and all associated site works	2023-02-02	730.1	97.12	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. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	No
201457 Tipperary County Council	Conditional	renovation and extension of existing house, including the demolition of existing garage, construct a new storage shed and upgrade existing entrance along with ancillary site works	2021-04-08	725.7	97.76	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. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	No

An Coimisiún Pleanála planning applications

ABP case ID	Date	Decision	Description	Distance from proposed dev. (m)	Characteristics of the potential interactions between the projects; sources and pathways	Likelihood of significant in-combination effects
300136	2018-04-24	Grant permission with revised conditions	Construction of 3 storey residential building, connection to necessary services, boundary treatments and all associated site works	87	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. The consent process for this project was subject to applicable EIA and AA requirements.	No

ABP case ID	Date	Decision	Description	Distance from proposed dev. (m)	Characteristics of the potential interactions between the projects, sources and pathways	Likelihood of significant in-combination effects
					Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	
308869	2021-05-27	Grant permission with revised conditions	to (a) increase the ridge height of the existing building, (b) convert rear pitched roof to flat roof and (c) convert attic space to habitable master bedroom ancillary to 1st floor apartment and all associated site works	143	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. The consent process for this project was subject to applicable EIA and AA requirements. Considering the above, in combination with the lack of any potential for effects to European sites arising from the proposed scheme, it is not considered that there is any potential for significant in-combination effects to any European sites.	No

Appendix II Supporting information on European sites considered in this assessment

European sites with functional connectivity (ecological pathways) to the proposed scheme area

Site code	Site name	Qualifying feature	Pressure codes	Known threats and pressures
002165	Lower River Shannon SAC	Sandbanks which are slightly covered by sea water all the time [1110], Estuaries [1130], Mudflats and sandflats not covered by seawater at low tide [1140], Freshwater pearl mussel *(Margaritifera margaritifera)* [1029], Sea lamprey *(Petromyzon marinus)* [1095], Brook lamprey *(Lampetra planeri)* [1096], River lamprey *(Lampetra fluviatilis)* [1099], Atlantic salmon *(Salmo salar)* [1106], Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260], Molinia meadows on calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)* [6410], Alluvial forests with Alnus glutinosa and Fraxinus excelsior *(Alno-Padion, Alnion incanae, Salicion albae)* [91E0], Coastal lagoons [1150], Large shallow inlets and bays [1160], Reefs [1170], Perennial vegetation of stony banks [1220], Vegetated sea cliffs of the Atlantic and Baltic coasts [1230], Salicornia and other annuals colonising mud and sand [1310], Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)* [1330], Bottlenose dolphin *(Tursiops truncatus)* [1349], Otter *(Lutra lutra)* [1355], Mediterranean salt meadows *(Juncetalia maritimi)* [1410]	A04, A08, B, C01.01.02, C01.03.01, D01.01, E01, E03, F01, F02.03, F03.01, G01.01, H04, I01, J02.01.01, J02.01.02, J02.10, J02.12.01, K02.03	Grazing, fertilisation, sylviculture, forestry, removal of beach materials, hand cutting of peat, paths, tracks, cycling tracks, urbanised areas, human habitation, discharges, marine and freshwater aquaculture, leisure fishing, hunting, nautical sports, air pollution, air-borne pollutants, invasive non-native species, polderisation, reclamation of land from sea, estuary or marsh, management of aquatic and bank vegetation for drainage purposes, sea defence or coast protection works, tidal barrages, eutrophication (natural)

Qualifying Interests of SACs that have undergone assessment

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
[1029]	Freshwater Pearl Mussel *(Margaritifera margaritifera)*	The pressures facing this species come from a wide variety of sources (e.g. pollution from urban wastewater, development activities, farming and forestry), often quite removed from the species' habitat. Flow changes, caused by land drainage are also a significant pressure facing the species.	A26, A31, B23, B27, C05, D02, F12, F28, F31, F33	Agricultural activities generating diffuse pollution to surface or ground waters, drainage for use as agricultural land, forestry activities generating pollution to surface or ground waters, modification of hydrological conditions, or physical alteration of water bodies and drainage for forestry (including dams), peat extraction, hydropower (dams, weirs, run-off-the-river), including infrastructure, discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water, modification of flooding regimes, flood protection for residential or recreational development, other modification of hydrological conditions for residential or recreational development, abstraction of ground and surface waters (including marine) for public water supply and recreational use	Surface water dependent. Highly sensitive to hydrological change. Very highly sensitive to pollution.
[1095]	Sea Lamprey *(Petromyzon marinus)*	Most of the pressures on Sea Lampreys are associated with hydropower infrastructure, reduction of prey populations due to overharvesting, drainage and the use of both natural and synthetic fertilisers. Changes in rainfall due to climate change is also considered a significant pressure on the species.	A19, A20, A31, D02, G01, N01, N02, N03, Xo	Application of natural fertilisers on agricultural land, application of synthetic (mineral) fertilisers on agricultural land, drainage for use as agricultural land, hydropower (dams, weirs, run-off-the-river), including infrastructure, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species, temperature changes (e.g., rise of temperature & extremes) due to climate change, increases or changes in precipitation due to climate change, threats and pressures from outside the member state	Marine water dependent. Low sensitivity to hydrological changes. Coastal development, trampling from recreational activity.
[1096]	Brook Lamprey *(Lampetra planeri)*	Most of the pressures on Brook Lampreys are associated with drainage for agriculture, the use of both natural and synthetic fertilisers, tree removal. Infrastructure related to hydropower along with pollution to ground and surface water and the discharge of waste water are also considered pressures.	A19, A20, A31, B09, D02, F11, F12, N01, N02	Application of natural fertilisers on agricultural land, application of synthetic (mineral) fertilisers on agricultural land, drainage for use as agricultural land, clear-cutting, removal of all trees, hydropower (dams, weirs, run-off-the-river), including infrastructure, 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, temperature changes (e.g., rise of temperature & extremes) due to climate change	Surface water dependent. Highly sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.
[1099]	River Lamprey *(Lampetra*	The main pressures on River Lampreys are associated with hydropower infrastructure and	A19, A20, A31, D02,	Application of natural fertilisers on agricultural land, application of synthetic (mineral) fertilisers on agricultural land, drainage for use as	Surface water dependent. Highly

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
	fluviatilis)	changes in rainfall due to climate change. The use of synthetic and natural fertilisers, drainage and also infrastructure related to shipping are also considered to be pressures on the species.	E03, N01, N02, N03	agricultural land, hydropower (dams, weirs, run-off-the-river), including infrastructure, shipping lanes, ferry lanes and anchorage infrastructure (e.g., canalisation, dredging), temperature changes (e.g., rise of temperature & extremes) due to climate change, increases or changes in precipitation due to climate change	sensitive to hydrological change. Availability of suitable spawning ground is a considerable issue for the species.
[1106]	Salmon *(Salmo salar)*	Known pressures include exploitation at sea in commercial fisheries, interceptor fisheries in coastal waters, aquaculture and predation. In addition, the negative influence of climate change on prey structure as well as alterations in habitat and water quality are also pressures on the species.	A25, A26, B23, D02, F12, F28, G11, G19, G20, I02, J01, K05, L06, N01	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, hydropower (dams, weirs, run-off-the-river), including infrastructure, discharge of urban waste water (excluding storm overflows and/or urban run-offs) generating pollution to surface or ground water, modification of flooding regimes, flood protection for residential or recreational development, illegal harvesting, collecting and taking, other impacts from marine aquaculture, including infrastructure, abstraction of water, flow diversion, dams and other modifications of hydrological conditions for freshwater aquaculture, other invasive alien species (other than species of union concern), mixed source pollution to surface and ground waters (limnic and terrestrial), physical alteration of water bodies, interspecific relations (competition, predation, parasitism, pathogens), temperature changes (e.g., rise of temperature & extremes) due to climate change	Disease, parasites and barriers to movement.
[1110]	Sandbanks which are slightly covered by sea water all the time	No significant pressures were identified acting on this habitat.	Xxp, Xxt	No pressures, no threats	None identified.
[1130]	Estuaries	Most of the pressures on estuaries come from various sources of pollution, including domestic wastewater, agriculture and marine aquaculture. Alien invasive species such as the naturalised Pacific oyster (*Magalana gigas*) are also recognised as a significant pressure	A28, F20, G16, I02, XU	Agricultural activities generating marine pollution, residential or recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine aquaculture generating marine pollution, other invasive alien species (other than species of union concern), unknown pressure	Inappropriate development, changes in turbidity

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
[1140]	Mudflats and sandflats not covered by seawater at low tide	Pressures on mudflats and sandflats are partly caused by pollution from agricultural, forestry and wastewater sources, as well as impacts associated with marine aquaculture, particularly the Pacific oyster (*Magallana gigas*).	A28, F20, G16	Agricultural activities generating marine pollution, residential or recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine aquaculture generating marine pollution	Surface and marine water dependent. Moderately sensitive to hydrological change. Moderate sensitivity to pollution. Changes to salinity and tidal regime. Coastal development.
[1150]	Coastal lagoons	Several high-ranking pressures were identified acting on this habitat: eutrophication, modification of hydrological flow, and drainage. Other pressures noted include erosion and silting up, accumulation of seaweed, and sedimentation from peat related to turf cutting and/or forestry.	C12, J02, K02, K04, L01, L03, N04	Extraction activities generating marine pollution, mixed source marine water pollution (marine and coastal), drainage, modification of hydrological flow, abiotic natural processes (e.g., erosion, silting up, drying out, submersion, salinization), accumulation of organic material, sea-level and wave exposure changes due to climate change	Erosion and silting up. Accumulation of seaweed. Land use management resulting in hydrological interactions.
[1160]	Large shallow inlets and bays	Pressures on the habitat include nutrient enrichment, dredging and invasive alien species.	A28, B23, F20, G01, G16, I02	Agricultural activities generating marine pollution, forestry activities generating pollution to surface or ground waters, residential or recreational activities and structures generating marine pollution (excl. marine macro- and micro- particular pollution, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species, marine aquaculture generating marine pollution, other invasive alien species (other than species of union concern)	Inappropriate development, changes in turbidity, surface water runoff, discharge etc. On site management activities.
[1170]	Reefs	The main pressures on reefs come from fishing methods that damage the seafloor.	G01, G03	Marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species, marine fish and shellfish harvesting (professional, recreational) activities causing physical loss and disturbance of seafloor habitats	Sensitive to disturbance and pollution.
[1220]	Perennial vegetation of stony banks	The main pressures on this habitat are associated with coastal defences (which can interfere with sediment dynamics), recreation	C01, E01, F07, F08, F09, I02	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use	Marine water dependent. Low sensitivity to hydrological changes.

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
		and shingle removal.		and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), deposition and treatment of waste/garbage from household/recreational facilities, other invasive alien species (other than species of union concern)	Coastal development, trampling from recreational activity and gravel removal.
[1230]	Vegetated sea cliffs of the Atlantic and Baltic coasts	A number of significant pressures were identified, including trampling by walkers, invasive non-native species, gravel extraction, and sea-level and wave exposure changes due to climate change.	C01, E01, F07, F08, I02, N03, N04	Extraction of minerals (e.g., rock, metal ores, gravel, sand, shell), roads, paths, railroads and related infrastructure (e.g., bridges, viaducts, tunnels), sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern), increases or changes in precipitation due to climate change, sea-level and wave exposure changes due to climate change	Land use activities such as tourism and/or agricultural practices. Direct alteration to the habitat or effects such as burning or drainage.
[1310]	Salicornia and other annuals colonising mud and sand	Pressures on Salicornia mud are caused by alien species and overgrazing by livestock	A09, I02	Intensive grazing or overgrazing by livestock, other invasive alien species (other than species of union concern)	Marine water dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Infilling, reclamation, invasive species.
[1330]	Atlantic salt meadows *(Glauco-Puccinellietalia maritimae)*	The main pressures on Atlantic salt meadows are from agriculture, including ecologically unstable grazing regimes and land reclamation, and the invasive non-native species common cord-grass (*Spartina anglica*).	A09, A33, A36, F07, F08, I02	Intensive grazing or overgrazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above, sports, tourism and leisure activities, modification of coastline, estuary and coastal conditions for development, use and protection of residential, commercial, industrial and recreational infrastructure and areas (including sea defence or coast protection works and infrastructures), other invasive alien species (other than species of union concern)	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Overgrazing, erosion and accretion.

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
[1349]	Bottlenose Dolphin *(Tursiops truncatus)*	Pressures on this species in Irish waters mainly involve commercial vessel-based activities such as impacts arising from geophysical seismic exploration or from local/regional prey removal by fisheries.	C09, G01	Geotechnical surveying, marine fishing and shellfish harvesting (professional, recreational) causing reduction of species/prey populations and disturbance of species	Large vessel movement effecting distributions. Prey availability, reduction in available habitat and water quality.
[1355]	Otter *(Lutra lutra)*	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.
[1410]	Mediterranean salt meadows *(Juncetalia maritimi)*	Most of the pressures on Mediterranean salt meadows are associated with agriculture, including overgrazing, under-grazing and land reclamation.	A09, A10, A33, A36	Intensive grazing or overgrazing by livestock, extensive grazing or under grazing by livestock, modification of hydrological flow or physical alternation of water bodies for agriculture (excluding development and operation of dams), agriculture activities not referred to above	Marine and groundwater dependent. Medium sensitivity to hydrological change. Changes in salinity and tidal regime. Coastal development and reclamation.
[3260]	Water courses of plain to montane levels with vegetation *(Ranunculion fluitantis and Callitricho-Batrachion)*	The majority of pressures on this habitat are caused by damage through hydrological and morphological change, eutrophication and other water pollution.	A25, A26, B23, C05, F11, F12, F13, K01, 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, abstraction from groundwater, surface water or mixed water, modification of hydrological flow, physical alteration of water bodies	Surface water dependent Highly sensitive to hydrological change and direct physical interactions.
[6410]	Molinia meadows on	The main pressures on the habitat are associated with agricultural intensification (e.g.	A02, A06, A10, A14,	Conversion from one type of agricultural land use to another (excluding drainage and burning), abandonment of grassland	Changes in management such as grazing regime.

EU code	Qualifying interests	Article 17 report summary - threats and pressures	Threats and pressures codes	Known threats and pressures	Sensitivity of qualifying interests
	calcareous, peaty or clayey-silt-laden soils *(Molinion caeruleae)*	land drainage, fertiliser application), under-grazing and forestry.	A31, B01	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, conversion to forest from other land uses, or afforestation (excluding drainage)	Changes in nutrient or base status. Changes to vegetation composition. Introduction of alien species.
[91E0]	Alluvial forests with Alder and Ash *(Alnus glutinosa, Fraxinus excelsior, Alno-Padion, Alnion incanae, Salicion albae)*	Many of the pressures facing this habitat include invasive species, particularly sycamore *(Acer pseudoplatanus)*, beech *(Fagus sylvatica)*, Indian balsam *(Impatiens glandulifera)* and currant species *(Ribes nigrum and R. rubrum)* as well as some native species such as brambles *(Rubus fruticoses agg.)* and common nettle, along with over felling.	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.

Appendix III Legislative context and Habitats Directive overview

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 their protection. Qualifying Interests (QIs) are the habitats and species for which SACs are designated and Special Conservation Interests (SCIs) are the species for which SPAs are designated. SACs and SPAs are 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'.*

For the purposes of this assessment, the above definition relates to a project. 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'.*

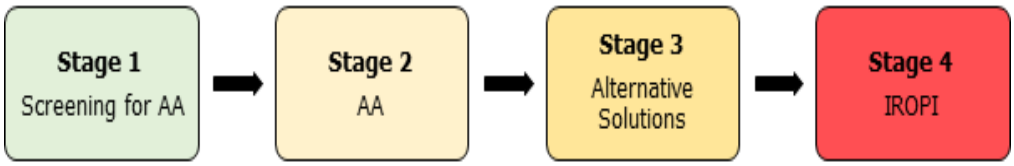
AA is an assessment of the likelihood of significant effects arising from a project, either individually or in combination with other plans or projects, to assess if the project will have potential for significant effect on any European site concerned, and implications in view of the European site's Conservation Objectives (COs). 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.

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 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 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. An Appropriate Assessment Screening Report (AASR) can be compiled to inform the competent authority on conducting a Screening for AA.

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.

Appendix IV Contributor competencies

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

Lead author - Karen Dylan Shevlin is a senior ecologist with over 12 years' experience working in multiple capacities in ecology in Irish and international research institutions and organisations and holds a MSc in Biodiversity and Conservation from Trinity College Dublin (Dist. 2013). Karen has significant skills and experience in leading research and ecological surveys of bats, birds, insects, habitats and mammals, data analysis and managing resulting reports. Karen is also a specialist in ecological theory and the impacts/effects that altering natural dynamics may have on the surrounding environment. Karen has been the lead author and reviewed on many Appropriate Assessment Screenings, NISs, and EIARs for a range of public and private projects and plans ranging from residential and industrial projects, to County Development Plans, to major wind turbine sites. 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 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.