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HABITATS DIRECTIVE APPROPRIATE ASSESSMENT SCREENING AND NATURA IMPACT STATEMENT (STAGE 2):

IN RELATION TO:

PLANNING APPLICATION FOR PERMISSION FOR CONSTRUCTION OF A DWELLING HOUSE WITH DOMESTIC GARAGE, PROVISION OF AN EFFLUENT TREATMENT SYSTEM WITH PERCOLATION AREA AND ALL ASSOCIATED SITE WORKS at ARDCOTTEN, COLLOONEY, CO. SLIGO

Client: Caroline & David Kelly,
c/o Michael Zaccheus,
Zaccheus Associates & Co.,
Culleenamore, Strandhill,
Co. Sligo.

Site Location: Ardcotten,
Collooney,
Co. Sligo.

Prepared By: Mr. Freddie P.R. Symmons B.Env.Sc (HONS) MCIEEM
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Report Ref: AA NIS Report-KELLY-Collooney-17.4.2024

Report Date: 17th April 2024

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1. Introduction

1.1 Preamble

Mr. Freddie Symmons - B.Env. Sc. (HONS) M.C.I.E.E.M *Senior Environmental Consultant* and *Ecologist* of Kingfisher Environmental Consultants and a *Full Member of the Chartered Institute of Ecology and Environmental Management* has been engaged by Caroline & David Kelly c/o Zaccheus Associates to carry out and prepare an Appropriate Assessment Screening and a Stage 2 Natura Impact Statement (NIS) in relation to:

"Planning application for permission for construction of a dwelling house with domestic garage, provision of an effluent treatment system with percolation area and all associated site works at Ardcotten, Collooney, Co. Sligo."

With the introduction of the Birds Directive in 1979 and the Habitats Directive in 1992 came the obligation to establish the Natura 2000 network of sites of highest biodiversity importance for rare and threatened habitats and species across the EU. In Ireland, the Natura 2000 network of European sites comprises Special Areas of Conservation (SAC's) and Special Protection Areas (SPA's).

Appropriate Assessment (AA) involves a case-by-case examination of the implications of a development for the Natura 2000 site and its conservation objectives. This may be presented in the form of a Natura Impact Statement. In general terms, implicit in Article 6(3) of the Habitats Directive is an obligation to put concern for potential effects on Natura 2000 sites at the forefront of every decision made in relation to plans and projects at all stages.

Each step in the assessment process precedes and provides a basis for other steps. The results at each step must be documented and recorded carefully so there is full traceability and transparency of the decisions made. They also determine the decisions that ultimately may be made in relation to approval or refusal of a plan or project. AA is not a prohibition on new development or activities but involves a case-by-case examination of the implications for the Natura 2000 site and its conservation objectives.

In the preparation of this report, careful attention has been made to fully document and reference all the site selection and suitability assessment procedures as they chronologically occurred. This is in accordance with the principles of Appropriate Assessment.

This report takes cognisance of the Kelly v An Bord Pleanala Case 2014 IEHC 400 which determined that conclusions must be capable of removing all reasonable scientific doubt as to whether a development may have significant effects on Natura 2000 sites.

1.2 Statement of Authority

This report has been prepared by an experienced Senior Environmental Consultant and Ecologist with over **30 years** professional experience going back as far as 1993. The author is a *Full Member of the Chartered Institute of Ecology and Environmental Management* and has prepared in excess of 150 Appropriate Assessment Screening and NIS reports in Ireland and in excess of 50 EIS and EIAR Reports.

The author has extensive local ecological and environmental knowledge of the Collooney area the local habitats and biodiversity and has written many published articles on the ecology of this area of County Sligo and has carried out numerous AA Screening and NIS Reports in this area of County Sligo.

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1.3 Methodology for Appropriate Assessment

1.3.1 Stage One - Screening for Appropriate Assessment

The Habitats Directive does not set out clear guidance on the exact format that a screening exercise for an appropriate assessment should follow. However, there is guidance provided in carrying out a Screening Report.

- Environment Heritage and Local Government: *Circular LG/08 Water Services Investment and Rural Water: Protection of Natural Heritage and National Monuments Programmes*. This is outlined on pages 30 – 35 of the Environment Heritage and Local Government publication: *Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities*, Published 10 December 2009.

- Environmental Protection Agency (n.d.) *Waste Water Discharge Licensing - Appropriate Assessment - Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)* Wexford, EPA.
- Office of the Planning Regulator Practice Note PN01 Appropriate Assessment Screening for Development Management, March 2021

In the first document, screening for appropriate assessment involves the following:

Description of Plan or Project
The first element is a description of the plan or project, including its nature, size and location, and possible or likely effects, and draft policies, objectives, land use zonings and associated strategies in the case of plans.

Natura 2000 Sites
The second element is an examination of what Natura 2000 sites may be affected.

The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km) – (Source: *Office of the Planning Regulator Practice Note PN01 Appropriate Assessment Screening for Development Management, March 2021*).

The identification of European sites within a 15km zone has become common practice in screening projects for AA. However, this approach is not based on the S-P-R model and should not be used for projects. Few projects have a zone of influence this large, but some more complex projects may require a greater zone of investigation. Instead the zone of influence of a project should be considered using the Source-Pathway-Receptor model. This should avoid lengthy descriptions of European sites, regardless of whether they are relevant to the proposed development, and a lack of focus on the relevant European sites and issues of importance.

Site synopses, which are summary descriptions of the key conservation interests of sites, and SAC datasheets with lists of qualifying interests for these sites are available from the NPWS website: www.npws.ie.

Assessment of Likely Effects
The task of establishing whether the plan or project is likely to have an effect on a Natura 2000 site or sites is based on a preliminary impact assessment using available information and data, including that outlined above, and other available environmental information (e.g. water quality data), supplemented as necessary by local site information and ecological surveys. This is followed by a determination of whether there is a risk that the effects

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identified could be significant. This need not be a lengthy exercise. A precautionary approach is fundamental and, in cases of uncertainty, it should be assumed the effects could be significant. Examples of significance indicators from Commission guidance (EC, 2002) are listed in the table below; this document also summarises four case study examples of assessment of significance outcomes for projects. As a guide, any element of a plan or project that has the potential to affect the conservation objectives of a Natura 2000 site, including its structure and function, should be considered significant (EC, 2006).

Impact type	Significance indicator
Loss of habitat area	Percentage of loss
Fragmentation	Duration or permanence, level in relation to original extent
Disturbance	Duration or permanence, distance from site
Species population density	Timescale for replacement
Water resource	Relative change
Water quality	Relative change in key indicative chemicals and other elements

Examples of significance indicators (from EC (2002), Box 4)

Some examples of effects that are likely to be significant are:

- Any impact on an Annex I habitat
- Causing reduction in the area of the habitat or Natura 2000 site
- Causing direct or indirect damage to the physical quality of the environment (e.g. water quality and supply, soil compaction) in the Natura 2000 site
- Causing serious or ongoing disturbance to species or habitats for which the Natura 2000 site is selected (e.g. increased noise, illumination and human activity)
- Causing direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site
- Interfering with mitigation measures put in place for other plans or projects

As the underlying intention of the in-combination provision is to take account of cumulative effects, and as these effects often only occur over time, plans or projects that are completed, approved but uncompleted, or proposed (but not yet approved) should be considered in this context (EC, 2002). All likely sources of effects arising from the plan or project under consideration should be considered together with other sources of effects in the existing environment and any other effects likely to arise from proposed or permitted plans or projects.

Screening Conclusion and Statement
The findings and conclusions of the screening process should be documented, with the necessary supporting evidence and objective criteria. This is of particular importance in cases where the AA process ends at the screening stage because the conclusion is that no significant effects are likely. Screening can result in the following possible conclusions or outcomes:

1. AA is not required. Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site.

2. No potential for significant effects/AA is not required. Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed. However, no changes may be made after this as this will invalidate the findings of screening. Documentation of the AA screening process, including conclusions reached and how decisions were made, must be kept on file**.**

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3. Significant effects are certain, likely or uncertain. The plan or project **must either proceed to Stage 2 (AA), or be rejected**. Rejection of a plan or project that is too potentially damaging and/or inappropriate ends the process and negates any need to proceed to Stage 2 (AA). Another possible option is to recommence the screening process with a modified plan or project that removes or avoids elements that posed obvious risks. This highlights the important process of screening a plan or project when new alternatives that may not have any impact are being considered. However, repeated or complicated screening exercises are not recommended as they point to the risk of significant effects and the need for Stage 2 (AA). The safeguards set out in Article 6(3) and (4) of the Habitats Directive are triggered not by certainty but by the possibility of significant effects. Thus, in line with the precautionary principle, it is unacceptable to fail to undertake an appropriate assessment on the basis that it is not certain that there are significant effects.

The following document has been used as guidance in compiling this screening report:

- Environmental Protection Agency (n.d.) *Waste Water Discharge Licensing - Appropriate Assessment - Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)* Wexford, EPA.

In this document, screening for appropriate assessment involves the following:

Step 1: Management of the site
Is the project directly connected with or necessary to the management of the site?

Step 2: Description of the project or plan
Identify all the elements of the project or plan alone or in combination with other plans or projects that have the potential for having significant effects on the site. The geographical scope of the plan or project as well as the European Sites that may be affected must be identified. The European Site or Sites that could be affected should be described.

A project may not in itself have a significant effect on a European Site, however, in combination with other plans or projects (existing and planned) it may result in a significant effect on a European Site.

Step 3: Characteristics of the site
This step requires identification of the impacts of the project on a European Site by characterising the site as a whole or those areas where impacts are most likely to occur. In addition to consideration of the cumulative effects on a European Site, consideration must also be given to direct, indirect, short and long-term, isolated and interactive effects.

Step 4: Assessment of significance
The assessment of the likelihood of significant effects of a proposed or existing plan or project on a European Site should be completed. If no significant effects are likely then no further assessment is required prior to the authorisation of the plan or project. There must be no reasonable scientific doubt that the plan or project does not have an effect on a European Site. This decision should be reasoned and recorded. If significant effects are likely then an appropriate assessment must be carried out. In addition, if the likelihood of significant effects is in doubt then the *precautionary principle* applies and an appropriate assessment must be carried out.

1.3.2 Stage Two: Appropriate Assessment

This is the consideration of the impact of the project or plan on the integrity of the Natura 2000 site, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. The competent Authority drafts the AA.

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1.3.3 Stage Three: Assessment of Alternative Solutions

This is the process which examines alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site.

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

Stage 4 of Appropriate Assessment is the main derogation process of Article 6(4) of the Habitats Directive which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project that will have adverse effects on the integrity of a Natura 2000 site to proceed in cases where it has been established that no less damaging alternative solution exists. This stage requires an affirmative answer to both of the questions below in order for a plan or project to go ahead in the absence of alternative solutions.

- Are there imperative reasons of overriding public interest?
- Are there human health or safety considerations or important environmental benefits?

1.3.5. References

The following references and source material have been referred to our used in the preparation of this screening assessment and Stage 2: Natural Impact Statement (NIS):

- 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 (2001)
- Birds Directive (79/409EEC)
- Environment Heritage and Local Government (10 December 2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities, Dublin.
- Environment Heritage and Local Government (March 11 2010) Circular NPW 1/10 & PSSP 2/10: Appropriate Assessment under Article 6 of the Habitats Directive: guidance for Planning Authorities, Dublin.
- Environment Heritage and Local Government: Circular L8/08 Water Services Investment and Rural Water: Protection of Natural Heritage and National Monuments Programmes
- Environmental Protection Agency (n.d.) Waste Water Discharge Licensing - Appropriate Assessment - Note on Appropriate Assessments for the purposes of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) Wexford, EPA.
- Environmental Protection Agency (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Wexford, EPA.
- European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94 of 1997) (which has been amended twice, S.I. No. 233 of 1998 & S.I. No. 378 of 2005).
- Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the concepts of: Alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission (2007)
- The European Commission published guidance on Article 6 of the Habitats Directive, including on Appropriate Assessment Screening. Assessment of plans and projects significantly affecting Natura 2000 sites (November 2001) and Managing Natura 2000 sites: The provisions of Article 6 of the 'Habitats' Directive (2018).
- Habitats Directive (92/43/EEC)
- National Parks and Wildlife Service Website – www.npws.ie: Site Synopsis and Mapping Data for Natura 2000 Sites.
- Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007)
- High Court: Uí Mhuirnín v. MHPLG [2019] IEHC 824
- Sweetman v ABP [2020] IEHC 39
- Kelly v. An Bord Pleanála (Aldi Stores) [2019] IEHC 84

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- Heather Hill Management v. An Bord Pleanála and Burkeway Homes [2019] IEHC 186 and 450 Court of Justice of the European Union (CJEU):
- C-258/11 - Sweetman and Others v ABP (Galway Bypass)
- C-258/11 - AG opinion, Sweetman and Others v ABP (Galway Bypass)
- C-127/02 - Waddenzee
- C-521/12 - T.C. Briels and Others v Minister van Infrastructuur en Milieu
- C-323/17 - People Over Wind and Sweetman v. Coilte Teoranta
- Managing Natura 2000 Sites – The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (updated 2018)
- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities (2009)
- Office of the Planning Regulator Practice Note PN01 Appropriate Assessment Screening for Development Management, March 2021

2. SCREENING FOR APPROPRIATE ASSESSMENT

2.1 Introduction

Screening for Appropriate Assessment is the first stage and critical test of Appropriate Assessment and the question is asked whether the development is considered to have a significant impact on a designated Natura 2000 site. The purpose of screening is to determine, on the basis of a preliminary assessment and objective criteria, whether:

i) a plan or project is directly connected to or necessary for the management of the site, and
ii) whether a plan or project, alone and in combination with other plans or projects, could have significant effects on a Natura 2000 site in view of the site's conservation objectives.

As most projects will not be related to point (i) above, this will virtually always be irrelevant but with regards to point (ii) if the answer is no then the process is complete and full appropriate assessment is not required. Screening therefore is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3) of the Habitats Directive.

Screening **should be undertaken without the inclusion of mitigation**, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan. This report takes cognisance of the Kelly v An Bord Pleanala Case 2014 IEHC 400 which determined that conclusions must be capable of removing all reasonable scientific doubt as to the effects on Natura 2000 sites.

2.2 Screening Process

2.2.1 Step 1: Management of the site

Question: Is the plan or project directly connected with or necessary to the management of the Natura 2000 site?

Answer: **No**

2.2.2 Step 2: Description of the project or plan

The development will consist of: *"Permission for construction of a dwelling house with domestic garage, provision of an effluent treatment system with percolation area and all associated site works at Ardcotten, Collooney, Co. Sligo."* The 1.168 hectare greenfield site in question is located at Ardcotten Townland, Collooney, Co. Sligo. The site location is shown in **Figure 2.2.2.1, Figure 2.2.2.2 and Figure 2.2.2.3** and in the accompanying photographs.

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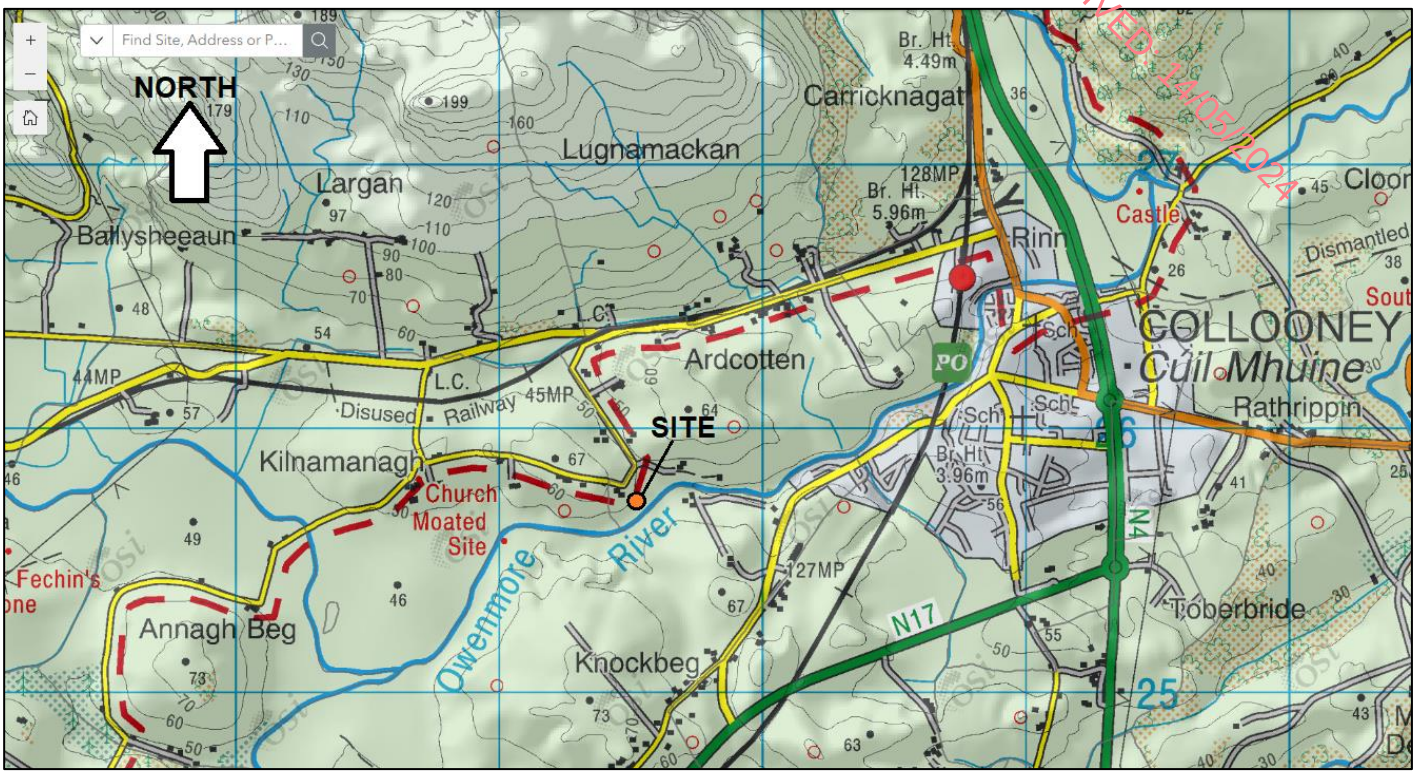

Figure 2.2.2.1: 1:50,000 Scale Site Location Map (Source: NPWS)

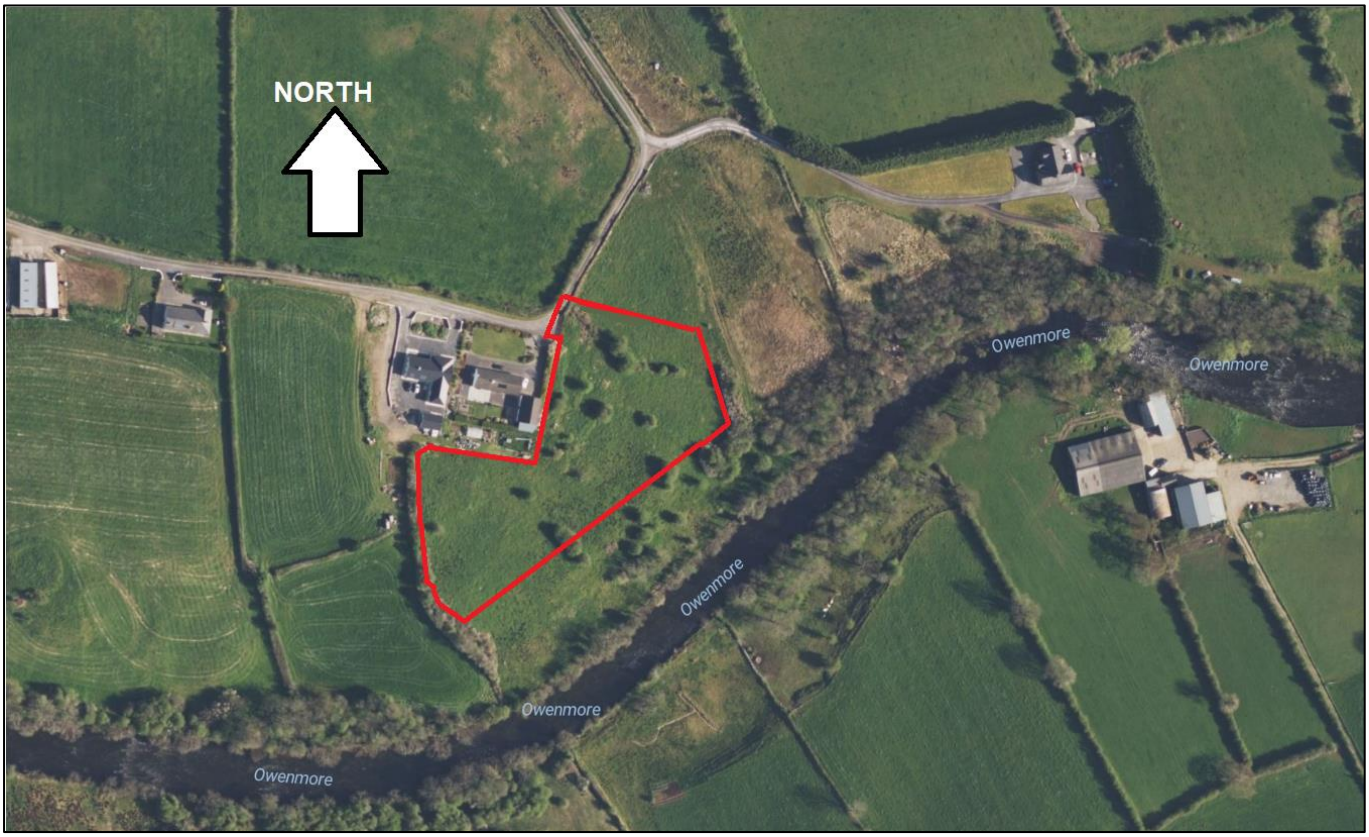

Figure 2.2.2.2: Aerial Photo of Site at Ardcotten, Collooney, Co. Sligo (Source: Bing Maps)

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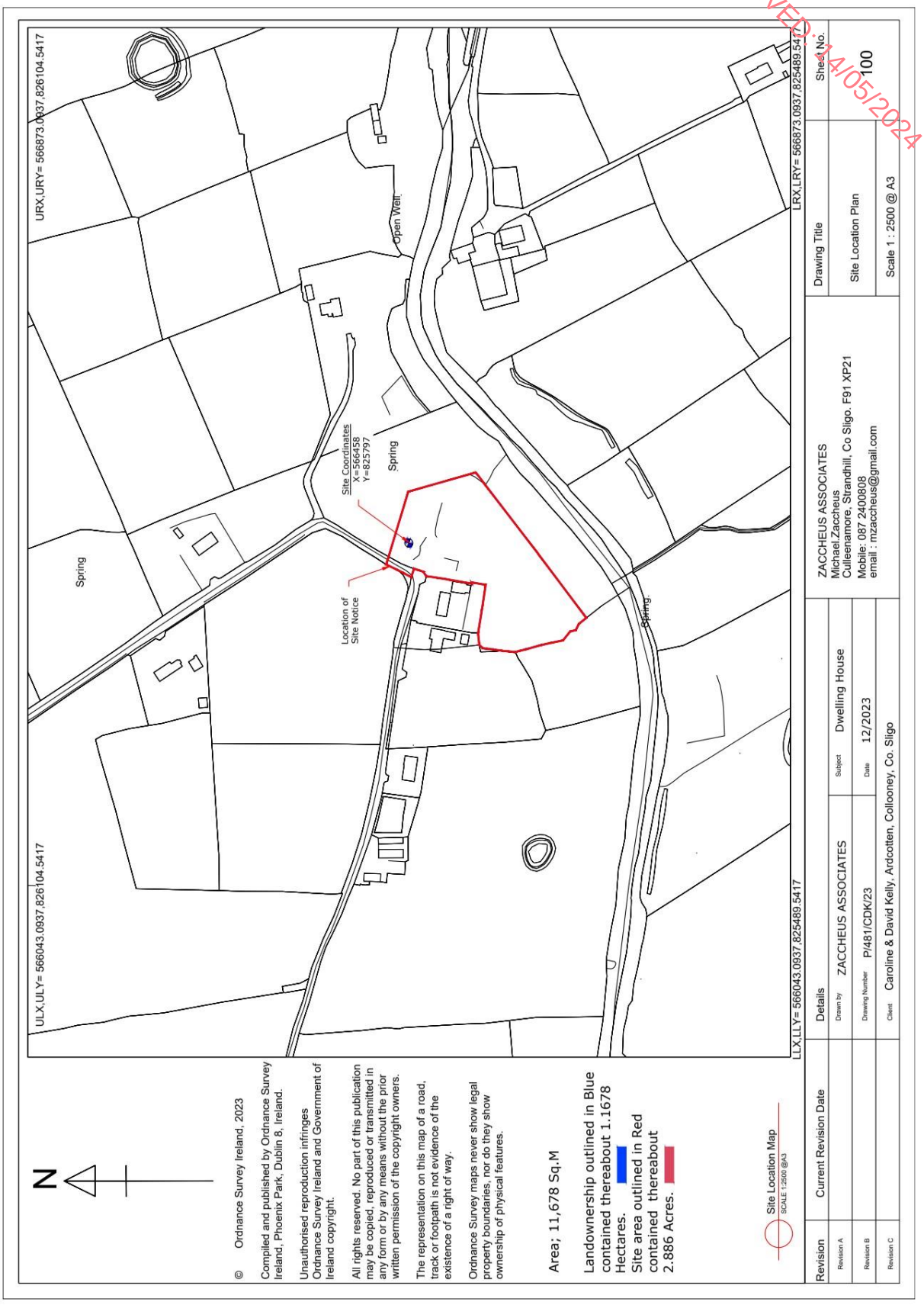

Figure 2.2.2.3: Site Location Map (Source: Zaccheus Associates)

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Photo 1: View looking north-west from the Owenmore River (and the Unshin River SAC) up and across the proposed site with 2 neighbouring dwellings in the background.

Photo 2: View of site looking south from the public road down towards the River Owenmore (and the Unshin River SAC). The site consists of Improved Agricultural Grassland (GA1) with occasional Hawthorn and Blackthorn Bushes

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The ecology of the site at Ardcotten, Collooney, Co. Sligo has been described in accordance with *Fossit, J.A., 2000. A Guide to Habitats in Ireland, The Heritage Council, Kilkenny.*

In addition, the following references have been used in the preparation of this habitat description:

- Devlin, Z. 2014. The Wildflowers of Ireland – A Field Guide: The Collins Press, Cork.
- Harrap, S, 2013. Harrap's Wild Flowers – A Field Guide to Wild Flowers of Britain & Ireland. Bloomsbury, London.
- Hubbard, C. E. 1992. Grasses: A Guide to their Structure, Identification, Uses and Distribution in the British Isles.
- Jermy, A. C., Chater, A. O. & R. W. David. 1982. Sedges of the British Isles: BSBI Handbook No. 1. BSBI, London.
- Joyce, P. M. 1998. Growing Broadleaves – Silvicultural Guidelines for Ash, Sycamore, Wild Cherry, Beech & Oak in Ireland. Coford, Dublin. Smith, A. J.E. 1978. The Moss Flora of Britain & Ireland. Cambridge University Press, Cambridge.
- Stace, C. A. 1991. New Flora of the British Isles.
- Streeter, D. 2016. Collins Wild Flower Guide 2nd Edition – The Most Complete Guide to the Wild Flowers of Britain and Ireland. William Collins, London.
- Webb, D. A. Parnell J. & D. Doogue. 1996. An Irish Flora. Dundalgan Press Ltd., Dundalk.
- www.wildflowersireland.ie

The elevated site is located to the south of a public road and the land in which the site is located slopes from the north to the south down to the River Ownemore as shown in the proposed site layout plan as **Figure 2.2.2.5**.

The actual site planning boundary is located the upslope and away from the River Owenmore by ca. 36 to 39 metres and is outside the SAC site boundary for the Unshin River SAC**.** This is shown below in **Figure 2.2.2.4.** The actual boundary of the Unshin River SAC does extend into the overall field as it takes in the riparian zone but the proposed development site **is outside the SAC.**

The site is presently a green-field site comprised of improved agricultural grassland (Habitat Type GA1) with occasional patches of hawthorn and blackthorn bushes (Habitat Type Scrub WS1) as remnants of old small field divisions which are long gone. The sward is relatively short and consists of typical agricultural grasses, together with occasional Rushes, Thistles, Cuckoo Flower, Buttercups, Dandelion, Sorrel, and Docks.

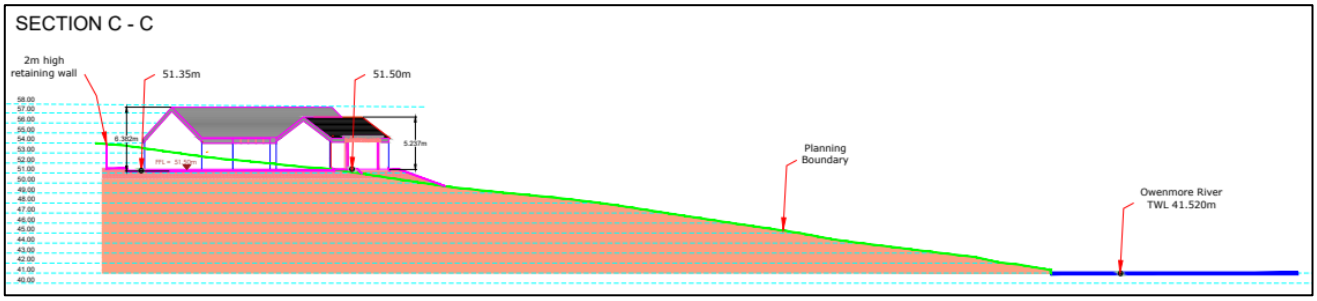

Figure 2.2.2.4: Cross Section C-C (North to South) through the site showing the slope and the site planning boundary well separated from the River Owenmore

To the west of the site and outside the site boundary are two separate dwelling houses and the surrounding lands are improved agricultural land (GA1) used for grazing of stock.

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The south-western site boundary of the site is formed by a mature hedgerow (Habitat type WL1) of principally Hawthorn with Blackthorn, Brambles, Ivy and Nettles This area will remain untouched by the proposed development. The same applies for the far south-eastern corner where there is an L-shaped remnant of hedgerow.

Where the site is to be built upon as part of the site development proposals, it will change from **Agricultural Grassland GA1** to another non-priority habitat namely: **Buildings and artificial surfaces BL3.** The grounds around the proposed dwelling house will likely become mown lawns and gardens which is classified as **Amenity Grassland (improved) GA2.** This type of grassland is improved and is managed for purposes other than grass production and is similar to what is here at present – i.e. predominantly short grass sward.

The site habitat survey has demonstrated that the non-priority habitats on-site have no particular ecological conservation value and do not form the basis of designation of the Natura 2000 sites and therefore do not form a part of these Natura 2000 sites in terms of feeding grounds; species regeneration or any other intrinsic link.

The habitat types found within the site at Ardcotten are non-priority habitats and none of the habitats or species found within the existing site boundary at are listed as being the qualifying interest for the Natura 2000 sites in the area. The proposed site is all outside the riparian zone associated with the River Ownemore and the Unshin River SAC.

No protected species are found within the site boundary which are worthy of specific conservation. Therefore, the proposed development will not negatively impact upon Natura 2000 sites and does not serve as a feeder site to these habitats.

The site is dry underfoot despite recent rain and there no **surface ponding of water** within the site as outlined in red.

There are no hydrological features within the development area of the site whatsoever therefore no direct hydrological linkage with the Owenmore River.

We have examined the proposals and would comment that the proposed works are all outside of any Natura 2000 site boundary and the site is conventional improved agricultural grassland, typical of that found in this area of County Sligo.

The proposed site layout plan is shown as **Figure 2.2.2.5.** The construction works will necessitate some excavation on site to create the proposed development levels and foundations and access road. Then standard building techniques will be employed to construct the dwelling house.

It is also proposed to install a wastewater treatment system with percolation area. From the site suitability assessment carried out the site is suitable to allow water to percolate/infiltrate into the existing ground with no runoff entering directly into the groundwater or to cause surface water ponding. The percolation area (polishing filter is located over 50 meters away from the Owenmore River.

The site characterisation assessment report for the site as submitted to Sligo County Council has demonstrated beyond any reasonable scientific doubt that the site is suitable for the on-site treatment and disposal of waste water in accordance with the new EPA Code of Practice 2021. The site has a significant depth of free-draining soil and subsoil on site and there is no perched or raised water table on site. The new site effluent treatment system will be located at the upper section of the site and this system will be located far away from any Natura 2000 site boundary.

The site has therefore passed the most strenuous assessment procedure possible which incorporates the requirements of the Comité Européen de Normalisation (European

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Committee for Standardisation) (CEN) European standards prepared by CEN TC 165 and called the EN 12566 series of standards: Small Wastewater Treatment Systems for up to 50 PT. Therefore, the proposed wastewater treatment on-site will not have any negative impact upon groundwater or surface water and therefore cannot have any negative ecological impacts.

There is no existing direct hydraulic link between the proposed development site and the River Owenmore to the south of the site.

It is proposed to discharge any clean storm water from roofs and hard standing areas to ground via a soakpit. This will also take water from the site entrance to ensure this does not flow onto the access road. **There is no proposal to discharge any clean surface waters to any watercourse and therefore no new hydraulic linkages will be created with the Owenmore River and thus the River Unshin SAC site.**

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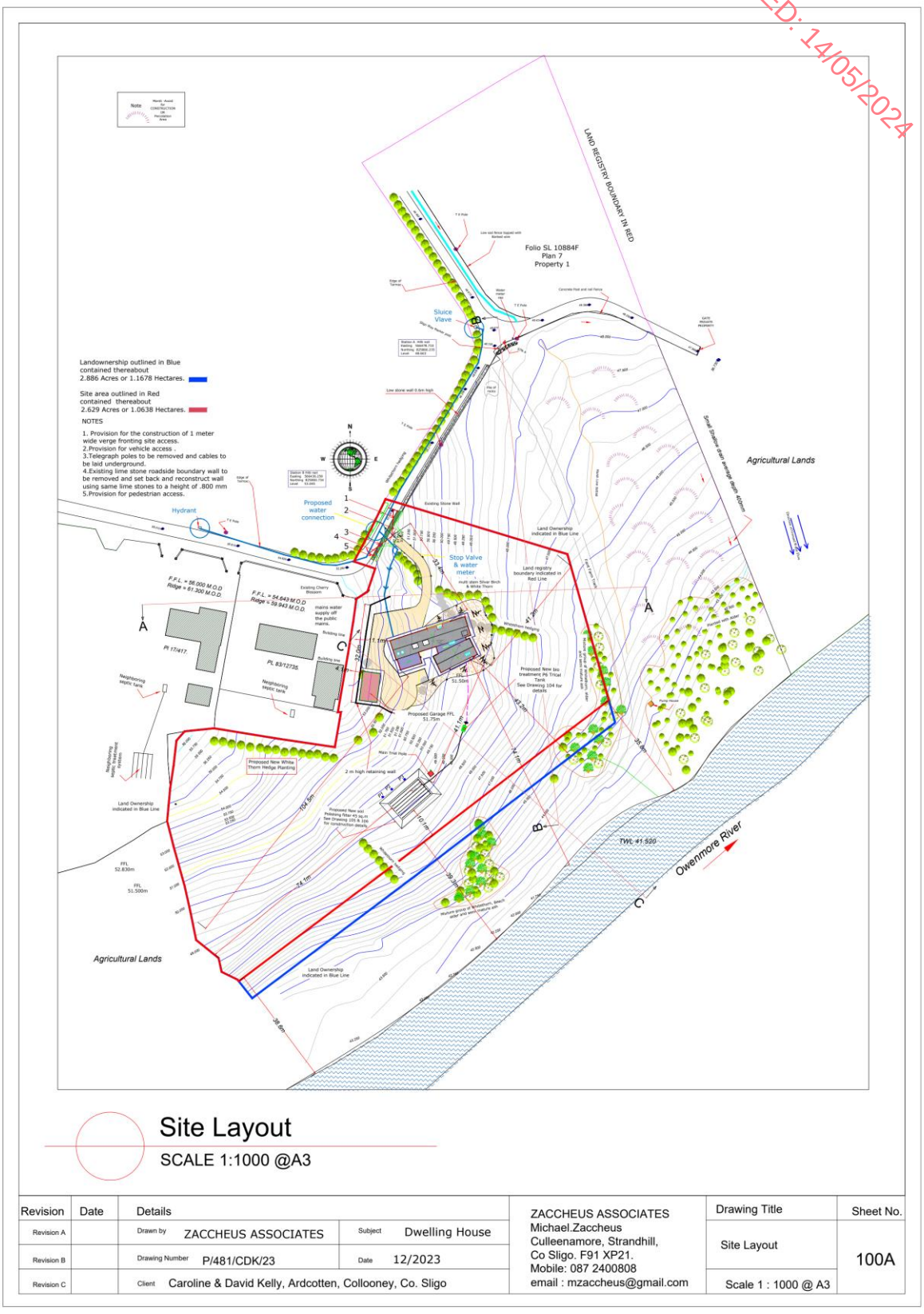

Figure 2.2.2.5: Proposed Site Layout Plan (Source: Zaccheus Associates)

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2.2.3 Step 3: Characteristics of the Site

2.2.3.1 Zone of Influence

The zone of influence of a proposed development is the geographical area over which it could affect the receiving environment in a way that could have significant effects on the Qualifying Interests of a European site. This should be established on a case-by-case basis using the Source-Pathway-Receptor framework and not by arbitrary distances (such as 15 km) – (Source: *Office of the Planning Regulator Practice Note PN01 Appropriate Assessment Screening for Development Management, March 2021*).

The identification of European sites within a 15km zone has become common practice in screening projects for AA. However, this approach is not based on the S-P-R model and should not be used for projects. Few projects have a zone of influence this large, but some more complex projects may require a greater zone of investigation. Instead the zone of influence of a project should be considered using the Source-Pathway-Receptor model. This should avoid lengthy descriptions of European sites, regardless of whether they are relevant to the proposed development, and a lack of focus on the relevant European sites and issues of importance.

The zone of influence used in this screening statement is the local catchment area of the site and any Natura 2000 sites within this immediate catchment. This extends to ca. 500m from the site and takes into account the Unshin River SAC (Site Code: 001898).

There are are no direct pathways from the site (source) to any known receptor (Natura 2000) sites and a 500m rationale is fully justifiable. It has been demonstrated that the proposed site does not have any existing streams or hydraulic links to the River Owenmore and thus the River Unshin SAC which is located ca. 5 metres from the south-eastern corner site boundary and ca. 45m from the area where the house will be built.

2.2.4 Step 4: Screening Findings

The proposed development site is **not** located within a Natura 2000 site (i.e. SAC or SPA). This has been confirmed through consultation with:

- NPWS website
- EPA Appropriate Assessment Screening GeoTool
- SAC and SPA maps provided at www.biodiveristyireland.ie.

The map presented as **Figure 2.2.4.1** shows the existing site outlined in red in relation to the 500 m zone of influence and shows the closest Natura 2000 Site, namely: Unshin River SAC.

There is no direct hydraulic link between the proposed site and any Natura 2000 site. The Unshin River Sac is located outside of the development site.

Table 2.3.4.1 considers all Natura 2000 sites (SACs and SPAs) within 0.5 km and key qualifying interests and sensitivities to the development site at Ardcotten and screens these sites in/ out of Appropriate Assessment. This assessment considers both alone and in-combination affects. This assessment is primarily informed by the nature of the development.

The proposed development site **is not** located within a Natura 2000 site (i.e. SAC or SPA), nor are there any direct hydrological pathways between the site and the Unshin River SAC. There is no potential for significant direct impacts upon the Unshin River SAC (Site Code 001898).

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However, due to the slope on the site from the north to the south down towards the Owenmore River, it is not possible to exclude, as a matter of scientific certainty that the proposed development (without mitigation measures) will not have any indirect effects on the Unshin River SAC and its qualifying interests due to the potential for silt migration off-site during construction works or from inappropriate construction techniques. Therefore the project should move to Stage 2 and a NIS shall be prepared as a precautionary measure to inform and assist the competent authority in carrying out the Appropriate Assessment.

Table 2.2.4.1 summarises the Stage 1 Appropriate Assessment Screening information and forms the Screening Findings.

Table 2.2.4.1: Natura 2000 Site Screened against Development Site at Ardcotten

Name	Site Code	Designation	Qualifying Interests	Distance from the site (km)	Screen in/out/uncertainty
Unshin River SAC	001898	SAC	Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation [3260] Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) [6210] Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae) [6410] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355]	Outside of the site boundary and ca. 45 m away from the actual area where the house is being built	**Screen In** The SAC is outside of the site area. No qualifying interests are within the existing development site as it improved grassland. However, without mitigation measures it is uncertain whether the proposed development will have significant indirect effects on the Unshin River SAC and its qualifying interests due to the potential for silt migration off-site during construction works or from inappropriate construction techniques.

The Site Synopsis for the Unshin River SAC site is listed in **Appendix 1** of this report.

It is acknowledged that whilst other Natura 2000 sites may be within 5 to 10 km of the development site, these are excluded as they are considered outside of the zone of influence and are screened out from screening due to the large intervening distance, dilution effect upon waters and the assessment that there will be no likely significant effects upon these sites.

Divergence to assess these sites removes the focus on assessing any potential impacts upon the closest Natura 2000 site – Unshin River SAC which is potentially within the Source-Pathway-Receptor model due to potential surface water run-off from the development site to the River Owenmore (and thus the Unshin River SAC) due to the intervening slope of the land.

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Figure 2.2.4.1: Natura 2000 Site Screening Map for the Proposed Development (Source: NPWS)

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2.2.4.1 Assessment of Potential In-Combination Effects and Cumulative Impacts

In the preparation of this Appropriate Assessment screening due regard has been made to other developments within the geographical area, both existing, finished and proposed to assess any in combination and cumulative impacts. The current Sligo County Development Plan was also subject to Appropriate Assessment and Strategic Environmental Assessment (SEA) and the development plan is the main planning guiding document for the planning authority.

There is a requirement under the EU Habitats Directive (92/43/EEC) (as transcribed into Irish law) to assess whether the Sligo Development Plan, individually or in combination with other plans or projects, is likely to have significant effect on a European Site, which includes Special Protection Areas (SPAs) and Special Areas of Conservation (SACs), in view of the site's conservation objectives.

The requirement for an assessment derives from Article 6 of the directive, and in particular Article 6(3) which requires that: "*Any plan or project not directly connected with or necessary to the conservation of a 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 recognition of this, an Appropriate Assessment (AA) Screening was carried out by Sligo County Council. From this it was determined that AA was required, and a Natura Impact Report was prepared. The assessment of the Sligo County Development Plan was carried out in the context of the scope and content presented in the plan.

The Natura Impact Report took a precautionary approach and assessed the impacts that would be anticipated from the plan providing the necessary inclusion of mitigation measures and guiding principles at the strategic level of the plan. The policies and objectives within the plan have been devised, as part of an iterative approach, to anticipate and avoid as appropriate measures that would likely have a significant adverse effect upon the integrity of the European Sites.

Where such measures might be permitted, on foot of provisions of the plan, they shall be required to conform to the mitigation measures contained in the Natura Impact Report (as transposed into the Sligo County Development Plan) and to the relevant regulatory provisions aimed at preventing pollution or other environmental effects likely to adversely affect the integrity of European Sites.

The AA processes have ensured that potential environmental impacts (both positive and negative) associated with the current Sligo Development Plan have been given due consideration in the preparation of the plan.

In the preparation of this Appropriate Assessment screening due regard has been made to other developments within the geographical area, both existing, finished and proposed to assess any in combination and cumulative impacts.

To enable an assessment a scoping exercise was undertaken of the Sligo Local Authority Planning Maps for this area. We have reviewed the planning history within a ca. 300-metre radius from the project site for the previous ca. 10 years.

Figure 2.2.4.1.1 is a map taken from Sligo County Council planning website which shows any planning applications in the vicinity of the planning application site. The planning search notes the following permissions which have been considered for the assessment of potential in-combination effects.

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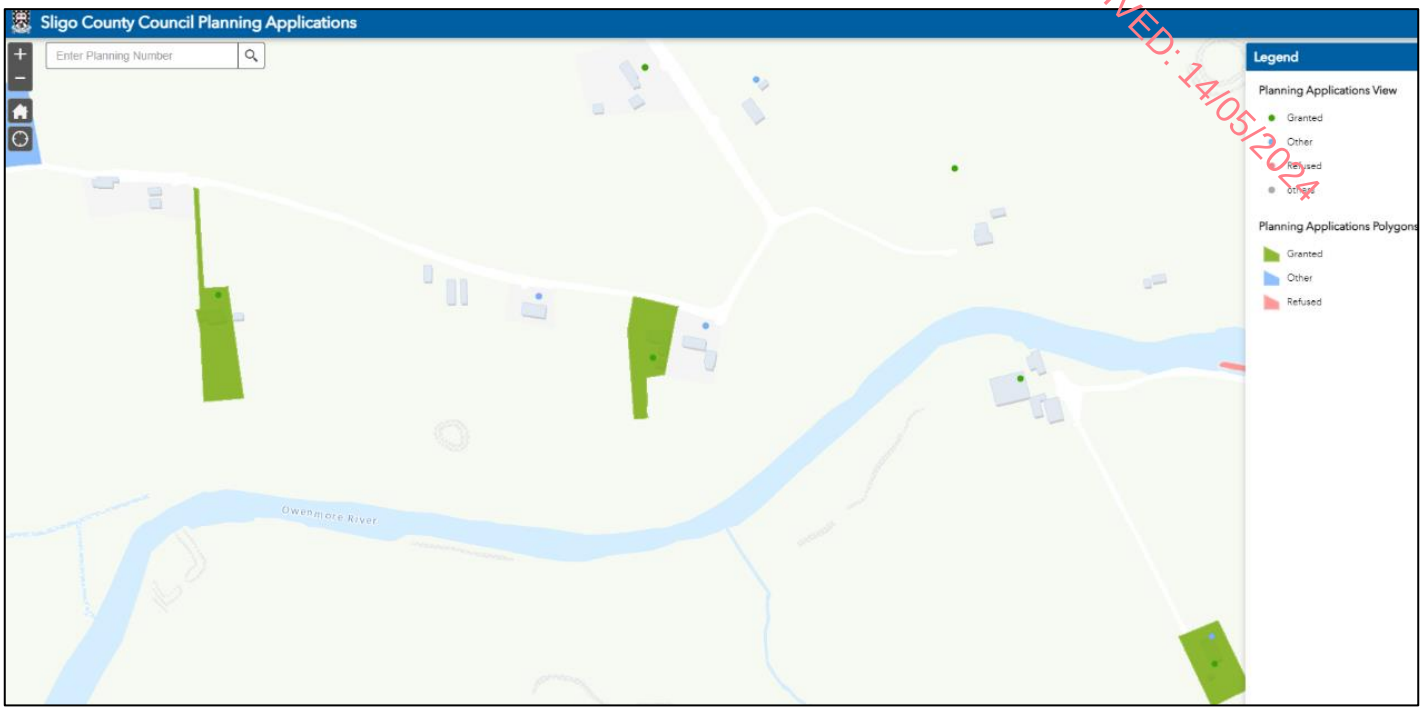

Figure 2.2.4.1.1: Extract from Sligo CC Planning Search Map for Ardcotten Area and Associated Maps showing Planning Developments within ca. 500m of the Proposed Development

The following permissions are noted:

ApplicationNumber	17417
ApplicationStatus	Granted
ApplicationType	PERMISSION
Description	For development consisting of the construction of a dwelling house, domestic garage, entrance by boundary wall, install a packaged wastewater treatment system with soil polishing filter and carry out ancillary development works
AddressLineA	Ardcotten Td
AddressLineB	Kilnamanagh Td
AddressLineC	Collooney

ApplicationNumber	98391
ApplicationStatus	Granted
FileYear	98
ApplicationType	PERMISSION
Description	A dwellinghouse, install septic tank and percolation area
AddressLineA	Ardcotton,
AddressLineB	Collooney,
AddressLineC	Co. Sligo.

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ApplicationNumber	22430
ApplicationStatus	Granted
ApplicationType	PERMISSION
Description	Development consisting of the following: to construct a two storey dormer type domestic extension to the rear of the existing dwelling, to renovate/restore and alter the existing domestic dwelling external elevations, to upgrade the existing waste water treatment system to epa code of practice standards together with all associated ancillary works
AddressLineA	Kilnamanagh
AddressLineB	Collooney
AddressLineC	Co. Sligo

By virtue of this and other neighbouring sites being granted planning permission, Sligo County Council will have undertaken appropriate assessment screening as the competent authority in allowing these to proceed.

Taking account of the above factors, and the similarity of this development with other permitted developments within the immediate vicinity of the site, it is considered that all in-combination impacts have been taken into account of any potential for in-combination impacts in this appropriate assessment screening.

2.2.4.2 Conservation Objectives

Appendix 1 contains the site synopsis for the Unshin River SAC (Site Code 001898).

The following are the general Conservation Objectives of the Unshin River SAC screened:

1. To maintain the Annex I habitats for which the SAC and SPA has been selected at favourable conservation status.

2. To maintain the Annex II species for which the SAC and SPA has been selected at favourable conservation status.

3. To establish the extent, species richness and biodiversity of the entire sites.

4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

Favourable conservation status of a habitat is achieved when:

- its natural range, and area it covers within that range, are stable or increasing, and
- 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, and

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- 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.

Reference has been made to the publication: (2021) Conservation Objectives: Unshin River SAC 001898. Version 1. National Parks and Wildlife Service, Department of Housing, Local Government and Heritage.

In this document which sets out site specific conservation objectives the following habitats and species are listed as the qualifying interests:

- 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
- 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)
- 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)
- 91E0 Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion
- incanae, Salicion albae)*
- 1106 Salmon Salmo salar
- 1355 Otter Lutra lutra

Of the above qualifying interests only 3 qualifying interests have any relevance to the site at Ardcotten as the others are located far away from the proposed development site (as shown in Map 3 and 4 of the Conservation Objectives publication). These are as follows:

- 3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation
- 1106 Salmon Salmo salar
- 1355 Otter Lutra lutra

The specific conservation objectives are set out on the following pages:

2.2.5 Appropriate Assessment Screening Conclusion

Based on the location of the site and that the proposed development site **is not** located within a Natura 2000 site (i.e. SAC or SPA) and there **is no direct** existing or proposed hydrological linkage to the Owenmore River which is part of the Unshin River SAC, there remains uncertainty as to potential indirect impacts upon this Natura 2000 site due to the potential for siltation from surface water run-off during site preparation and construction works and from inappropriate construction techniques.

Having ascertained during the AA Screening that it is not possible to exclude, as a matter of scientific certainty that the proposed development will have an effect on any Natura 2000 site, individually or together with other plans and projects, the project should proceed to Stage 2 and a Natura Impact Statement should be prepared as a precautionary measure to inform and assist the competent authority in carrying out the Appropriate Assessment.

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Site Specific Conservation Objectives for the Unshin River SAC relevant to the Application Site

Conservation Objectives for : Unshin River SAC [001898]

3260 Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation

To maintain the favourable conservation condition of Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation in Unshin River SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Habitat area	Kilometres	Area stable or increasing, subject to natural processes	Conservation objectives concentrate on the high conservation value sub-types of the habitat. Selection of the SAC was based on the vegetation communities of the Unshin River, which were described by Goodwillie et al. (1992) as of international importance, the Unshin being one of the few undrained limestone rivers in Ireland, and by Holmes (1996) as the 'best reach of a river for macrophytes ever experienced' having an 'unquestionably unique' combination of species. The SAC also includes much of the Owenbeg/Owenboy River and lower Owenmore. Goodwillie et al. (1992) described the site in detail. The Unshin flows out of Lough Arrow SAC, and Templehouse and Cloonacleigha Loughs SAC is upstream of the Owenboy on the Owenmore
Habitat distribution	Occurrence	No decline, subject to natural processes	As noted above, the habitat is distributed throughout the alkaline Unshin River, which has many slow-flowing, deep and meandering stretches and some faster-flows, including low-falls/cascades (Goodwillie et al., 1992; Douglas et al., 1993; Holmes, 1996). The Owenbeg/Owenboy is also in the SAC and is a more base-poor mountain river subject to spates (Goodwillie et al., 1992). The Owenbeg joins the Owenmore above Collooney and the Unshin joins below Collooney. Further study of Irish rivers is needed to interpret the broad description of habitat 3260 which covers from upland bryophyte/macroalgal dominated to lowland depositing rivers with pondweeds and starworts (European Commission, 2013)
Hydrological regime: river flow	Metres per second	Maintain appropriate hydrological regimes	The Unshin flows from spring-fed Lough Arrow, and Holmes (1996) considered that the lake has a stabilising influence on the river's flow regime, as does the significant base-rich groundwater input. Goodwillie et al. (1992) described the broad flow regime of the Unshin as slow-moving over much of its length, but with two steeper stretches with falls/cascades. Deep, ponded sections occur in peat, meandering stretches through alluvium and some faster stony reaches. By contrast, the Owenbeg rises in the Ox Mountains and is a spatey river. A series of waterfalls occurs near Collooney below the confluence of the Owenmore and Owenbeg/boy Rivers. A natural flow regime is required for both plant communities and channel geomorphology to be in favourable condition, exhibiting typical dynamics for the river type (Hatton-Ellis and Grieve, 2003)

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Hydrological regime: groundwater discharge	Metres per second	Maintain appropriate hydrological regime	Carboniferous limestone and calcareous shale dominate the catchments and, as a result, groundwater makes a significant contribution to the rivers in the SAC, particularly the Unshin. As noted above, Holmes (1996) highlighted the stabilising effect of the significant base-rich groundwater input on the flow-regime of the Unshin, as well as its critical influence on the river's macrophytes. It is essential that the appropriate groundwater contributions necessary for the natural functioning of the habitat be maintained and that there is no significant disturbance of the catchments' groundwater regimes
Substratum composition: particle size range	Millimetres	Maintain appropriate substratum particle size range, quantity and quality, subject to natural processes	Goodwillie et al. (1992) described the Unshin, Owenbeg and Owenmore rivers. Fine particles dominate the slow-flowing Unshin, which also has stony stretches and bedrock cascades; peat occurs in the upper reaches. The Owenbeg has a gravel bed and peat is a significant feature of its valley. The Owenmore is flat, slow-moving, partly channelised and dominated by fine sediments. Although many high conservation value sub-types are dominated by coarse substrata and bedrock, certain sub-types, notably those associated with lake inflows/outflows, peatlands and groundwater inputs, such as those in this SAC, are dominated by fine substrata. The size and distribution of particles is largely determined by the river flow and geology. The chemical composition (particularly minerals and nutrients) of the substratum is also important. The quality of finer sediment particles is a notable driver of rooted plant communities
Water quality	Various	Maintain/restore appropriate water quality to support the natural structure and functioning of the habitat	Goodwillie et al. (1992) stated that the Unshin becomes more nutrient-rich as it approaches Collooney. Holmes (1996) also found, based on macrophyte trophic indicators, that the Unshin becomes more enriched as one moves downstream, and noted a significant deterioration below Newtown. By contrast, EPA Q values have generally improved in a downstream direction from Q3-4 or Q4 at Bellarush Bridge below Lough Arrow to Q4-5 at Ballygrania Bridge and, under the Water Framework Directive, a High Status objective applies to the lower Unshin. See also The European Communities Environmental Objectives (Surface Waters) (Amendment) Regulations 2019, EPA river water quality reports (e.g. McGarrigle et al., 2010; Bradley et al., 2015; Fanning et al., 2017; O'Boyle et al., 2019) and Ní Chatháin et al. (2013)
Typical species	Occurrence	Typical species of the relevant habitat sub-type should be present and in good condition	Typical species have not been fully defined but may include higher plants, bryophytes, algae and invertebrates. Goodwillie et al. (1992), Douglas et al. (1993) and Holmes (1996) recorded macrophytes in the Unshin. All highlighted the exceptionally high species-richness and importance of the community. Holmes (1996) hadn't encountered such rich and unusual combinations of river plants (e.g. *Apium inundatum, Littorella uniflora, Oenanthe fluviatilis, Potamogeton praelongus*) on the British Isles or Europe and the Unshin had >30% more species than rivers of similar type in GB and Ireland; other species recorded include *Cinclidotus sp., Hygroamblystegium fluviatile, Pellia endiviifolia, Callitriche obtusangula, C. stagnalis, Hippuris vulgaris, Lemna minor, L. trisulca, Menyanthes trifoliata, Myriophyllum spicatum, Nuphar lutea, Potamogeton crispus, P. natans, P. pectinatus, P. praelongus, Ranunculus penicillatus* subsp. *penicillatus, Sparganium emersum, S. erectum*

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Floodplain connectivity: area	Hectares	Maintain/restore the area of active floodplain at and upstream of the habitat	Holmes (1996) also recorded emergent and marginal species in the Unshin including *Berula erecta, Caltha palustris, Carex paniculata, Cicuta virosa, Comarum palustre, Geum rivale, Glyceria fluitans, Lysimachia vulgaris, Pedicularis palustris, Phalaris arundinacea, Phragmites australis, Ranunculus circinatus, R. flammula, R. lingua, Schoenoplectus lacustris, Typha latifolia, Veronica anagallis-aquatica*. River connectivity with the floodplain is important for the functioning of this habitat. Channels with a naturally functioning floodplain are better able to maintain habitat and water quality (Hatton-Ellis and Grieve, 2003). Floodplain connectivity is particularly important in terms of sediment sorting and nutrient deposition. High conservation value rivers are intimately connected to floodplain habitats and function as important wildlife corridors connecting otherwise isolated or fragmented habitats in the wider countryside (Hatton-Ellis and Grieve, 2003; Mainstone et al., 2016)
Riparian habitat: area and condition	Hectares	Maintain the area and condition of fringing habitats necessary to support the habitat and its sub-types	A number of areas of wet alluvial woodlands occur along the Unshin (see 91E0 objective in this volume). See Goodwillie et al. (1992) and Douglas et al. (1993) for information on the fringing habitats along the Unshin and Owenbeg/Owenboy Rivers, which included willow woodland, peatland, tall herb and reedgrass and reedswamp. Some of the riparian species recorded by Holmes (1996) are listed above. Riparian habitats are integral to the structure and functioning of rivers, even where not part of a floodplain. Fringing habitats contribute to the aquatic food web, provide habitat for life-stages of fish, birds and aquatic invertebrates, assist in the settlement of fine suspended material, protect banks from erosion and contribute to nutrient cycling. Shade may suppress algal growth and moderate temperatures. Equally, fringing habitats are dependent on rivers, particularly their water levels, and support wetland communities and species of conservation concern. See Mainstone et al. (2016)

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Conservation Objectives for : Unshin River SAC [001898]

1106 Salmon *Salmo salar*

To maintain the favourable conservation condition of Atlantic Salmon (*Salmo salar*) in Unshin River SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Distribution: extent of anadromy	Percentage of river accessible	100% of river channels down to second order accessible from estuary	Artificial barriers block salmons' upstream migration, thereby limiting species to lower stretches and restricting access to spawning areas
Adult spawning fish	Number	Conservation limit (CL) for each system consistently exceeded	A conservation limit (CL) is defined by the North Atlantic Salmon Conservation Organisation (NASCO) as "the spawning stock level that produces long-term average maximum sustainable yield as derived from the adult to adult stock and recruitment relationship". The target is based on the Technical Expert Group on Salmon's (TEGOS) annual model output of CL attainment levels. See Gargan et al. (2021) for further details. Stock estimates are either derived from direct counts of adults (rod catch, fish counter) or indirectly by fry abundance counts. The Unshin River is part of the Ballysadare catchment and is currently above its CL for salmon
Salmon fry abundance	Number of fry/5 minutes electrofishing	Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling	Target is threshold value for rivers currently exceeding their conservation limit (CL)
Out-migrating smolt abundance	Number	No significant decline	Smolt abundance can be negatively affected by a number of impacts such as estuarine pollution, predation and sea lice (*Lepeophtheirus salmonis*)
Number and distribution of redds	Number and occurrence	No decline in number and distribution of spawning redds due to anthropogenic causes	Salmon spawn in clean gravels
Water quality	EPA Q value	At least Q4 at all sites sampled by EPA	Q values based on triennial water quality surveys carried out by the Environmental Protection Agency (EPA)

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Conservation Objectives for : Unshin River SAC [001898]

1355 Otter *Lutra lutra*

To maintain the favourable conservation condition of Otter (*Lutra lutra*) in Unshin River SAC, which is defined by the following list of attributes and targets:

Attribute	Measure	Target	Notes
Distribution	Percentage positive survey sites	No significant decline	Measure based on standard otter survey technique. Favourable Conservation Status (FCS) target, based on 1980/81 survey findings, is 88% in SACs. Current range is estimated at 93.6% (Reid et al., 2013)
Extent of terrestrial habitat	Hectares	No significant decline. Area mapped and calculated as 124.68ha	No field survey. Areas mapped to include 10m terrestrial buffer along river banks and around water bodies identified as critical for otters (NPWS, 2007)
Extent of freshwater (river) habitat	Kilometres	No significant decline. Length mapped and calculated as 66.55km	No field survey. River length calculated on the basis that otters will utilise freshwater habitats from estuary to headwaters (Chapman and Chapman, 1982)
Couching sites and holts	Number	No significant decline	Otters need lying up areas throughout their territory where they are secure from disturbance (Kruuk and Moorhouse, 1991: Kruuk, 2006)
Fish biomass available	Kilograms	No significant decline	Broad diet that varies locally and seasonally, but dominated by fish, in particular salmonids, eels and sticklebacks in freshwater (Bailey and Rochford, 2006; Reid et al., 2013)
Barriers to connectivity	Number	No significant increase	Otters will regularly commute across stretches of open water up to 500m. e.g. between the mainland and an island; between two islands; across an estuary (De Jongh and O'Neill, 2010). It is important that such commuting routes are not obstructed

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3. NATURA IMPACT STATEMENT

3.1 Findings of Appropriate Assessment Screening

The AA Screening has ascertained that it is not possible to exclude, as a matter of scientific certainty (without the inclusion of any mitigation measures) that the proposed development will not have an effect on any Natura 2000 site.

This is due principally to the uncertainty as to whether the proposal will have significant indirect effects upon the Unshin River SAC – a European Site and the potential impact upon water quality and designated species and habitats from the potential for siltation from surface water run-off during site preparation and construction works and from inappropriate construction techniques.

3.2 Consideration of Any Likely Significant Effects upon Natura 2000 Sites before any Mitigation Measures are adopted

3.2.1 Direct Effects

As the site is outside of any Natura 2000 there are **no likely direct impacts** upon the Unshin River SAC.

The Potential for cumulative or in-combination impacts have been discussed in the Appropriate Assessment Screening Stage with no likely cumulative impacts predicted.

The potential for significant direct impacts upon Otter populations is not considered to be likely due to the fact that the site is located outside of the SAC which also includes a riparian buffer zone as well as the River Owenmore itself. Therefore, otters will be able to continue to move unhindered up and down stream and along the river bank without disturbance or interference.

The potential for significant direct effects upon Salmon populations is not considered to be likely due to the fact that the site is located outside of the SAC and far removed from the river channel and there is no likely direct impact upon salmon population and bredding.

The potential for significant direct effects upon water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation is not considered likely due to the proposed site being located outside of the SAC and far removed from the river channel.

3.2.2 Indirect Effects

The potential for **indirect effects** from the construction phase of the proposed project before any mitigation measures are considered are summarised below:

- Surface water quality within the Unshin River SAC due to the potential for sediment migration during site preparation and construction works and from inappropriate construction techniques, with potential effects upon associated water habitats and species, more specifically: water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation; Otter Populations; and Salmon Populations.

There are no proposals to discharge anything to the River Owenmore. All storm water and clean roof water will discharge to two a soakaway as specified by the architect in the planning application. The only potential impacts are silt drainage upon the river during the construction stage.

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3.3 Method Statement of Proposed Works Incorporating Mitigation and Precautionary Measures to Mitigate against any Impact upon Surface Waters/Water Quality and the Unshin River SAC

3.3.1 Project Brief

The following is a Method Statement to be adopted during construction works. Prior to any demolition or construction works, a siltfence will be installed downgradient from the works along the souther site boundary. This is discussed in more detail below,

3.3.1.1 Site Demolition Works

No demolition works are required at the site as it is a greenfield. However there may be the necessity to remove excess soil or overburden off-site. If necessary then this is to be removed off site in a two day period during dry weather.

3.3.1.2 Management of Soil & Excavations

A “silt fence” is to be installed between the development works and the River Owenmore on the southern downslope site boundary, to prevent silting or contaminated run-off from leaving the site towards the Unshin River. The “silt fence” is to remain in place for the duration of the **works – see Figure 3.3.1.2.1** and **Figure 3.3.1.2.2**.

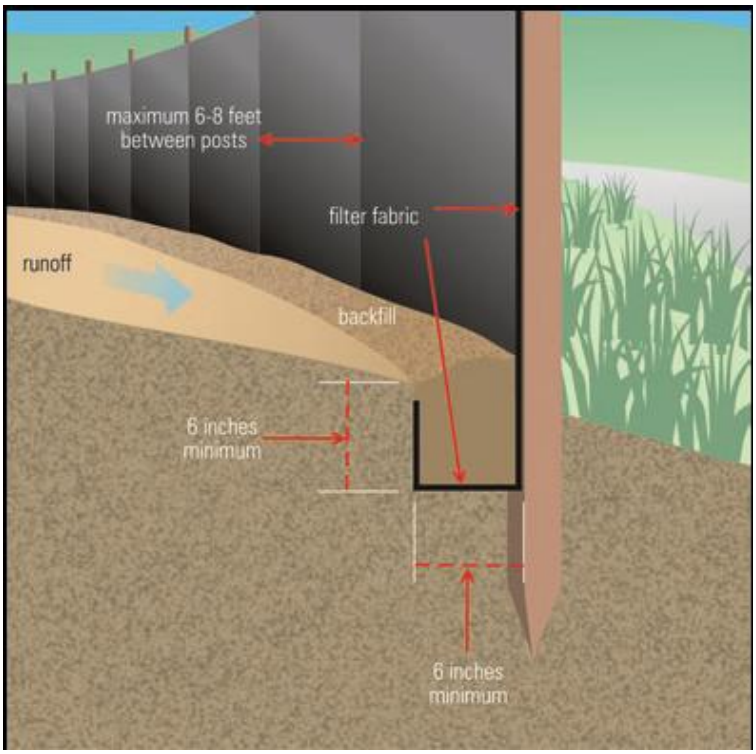

Figure 3.3.1.2.1: Example of EPA approved silt fence detail – temporary fence used during site works / construction phase.

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Figure 3.3.1.2.2: Example of silt fence in operation on similar site.

The suitability of the soil conditions will be assessed on site by the Engineer and advice given as to the best course of action in terms of foundation construction.

Any topsoil that is stripped back for the construction works is to be stockpiled in an area to the north of the property. This will be covered with an impermeable membrane for later use on garden areas. This to reduce saturation of soil and risk of silting. This is shown in **Figure 3.3.1.2.3.**

Figure 3.3.1.2.3: Typical impermeable membrane used to dry store topsoil on site.

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3.3.1.3 Washing of Truck Wheels

As the site access is close to the public road and the proposed excavations works are only set back approximately 10 to 15 metres from the public road it has been considered inappropriate to propose a wheel-wash station. The volume of soils to go off-site are considered relatively small and it is considered best practice to propose to manually power-hose the lorry if required.

As the excavated material can be removed within 2 working days it will be possible to carefully monitor and control the dust and dirt created by such works with the cooperation of the excavator and truck drivers.

3.3.1.4 Timeline for the Construction Works

Pending the successful outcome from the Local Authority Planning Section it is predicted that development on site will begin immediately (allowing the appropriate 14-28 day notice period for the Commencement Notice). The contractor when appointed to the contract will be expected to have the works undertaken and completed with 16-18 weeks. The above time estimate assumes favourable weather conditions and ground conditions are encountered.

3.3.1.5 Concrete Deliveries

The new dwelling will be constructed with concrete block walls on concrete strip footings and the excavated soil from the foundation trenches is to be removed off site as the trenches are being dug and not stockpiled on the site unless it is to be used to raise ground levels. It will be necessary to take delivery of a number of concrete mixer truck loads for the foundations and sub-floors. These are to be arranged and delivered in suitable weather conditions and under no circumstances should the mixers and chutes be washed out on site. They are to return to the quarry and wash-out at base within the designated wash bay areas.

3.3.1.6 Storage of Materials on Site

Diesel for machinery is to be brought to site only when required and containers are to be securely stored away.

All construction related materials required on site such as sand, cement, lime, insulations, chemical admixtures etc will be dry stored towards the north of the site and away from the southern boundary and thereforer eliminating any potential runoff risk to the River Owenmore.

Deliveries such as sand will be stored in a designated storage area to the north of the site. An impermeable membrane is to be used under this area with the sides folded up. It will be the responsibility of the appointed contractor to provide adequate and suitable storage of such materials required.

3.3.1.7 Flood Risk

From a thorough inspection of the site, the proposed works including the WWTP and Percolation areas are not located within a potential flood risk area and will meet the EPA Code of Practice for design and for separation distances.

There is no risk of any other type of pluvial or fluvial flooding and therefore there is no risk of uncontrolled mass water run-off, soiled water discharges, hydrocarbon/fuels or indiscriminate discharges from the site.

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3.4 Consideration of Any Likely Significant Effects upon the River Unshin SAC Site Following Adoption of Mitigation Measures.

3.4.1 Summary of Potential Impacts and Assessment

The following table is based on a table taken from the Box 4 of EC (2002) and sets out examples of significance indicators. This is being used as an impact prediction to assess the potential for significant impacts upon the Unshin River SAC site from the proposed development of a dwelling house and associate works at Ardcotten, Collooney, Co. Sligo..

This takes into account the project location; the project description; mitigation and precautionary measures which have been incorporated; and the status and ecology of the existing site for development:

Impact Type	Significance Indicator for this Site
Loss of Habitat Area	No Loss to any part of Natura 2000 Site
Fragmentation	No fragmentation to Natura 2000 Site
Disturbance	No Direct or Indirect disturbance to Natura 2000 Site
Species Population Density	No Change or Replacement of Species Population
Water Resource	No relative change to surface waters
Water Quality	No significant direct or indirect impact

The conclusions of the assessment of impacts upon the listed Natura 2000 site has shown that there will be no likely significant impacts upon the Natura 2000 site identified by the proposed development at Ardcotten. This is further discussed below in more detail:

3.5 Impact Prediction & Conservation Objectives

3.5.1 Any impact on an Annex I habitat

The site for the proposed dwelling house and associated works at Ardcotten is located outside of any Annex 1 designated habitat and there will be no direct significant impacts on the Natura 2000 site or its Annex 1 habitats. The method statement for the construction works which includes mitigation and precautionary measures eliminates any potential for indirect impacts through site drainage or siltation potentially impacting upon the water quality of the Unshin River SAC.

Therefore, it can be concluded that the proposed development will not compromise the maintenance of Annex I habitats for which the SAC has been selected at favourable conservation status.

3.5.2 Causing reduction in the area of the habitat or Natura 2000 site

The proposed dwelling house and associated works at Ardcotten will occur on non-priority habitats which will occur outside of the Natura 2000 site boundary.

There will be no loss of any area of Natura 2000 sites as a consequence of the proposed development and the proposed development will not result in any impact on any Annex II species of flora or fauna.

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3.5.3 Causing direct or indirect damage to the physical quality of the environment (e.g. water quality and supply, soil compaction) in the Natura 2000 site

There will be no direct or indirect damage to the physical quality of the environment with the proposed dwelling house and associated works at Ardcotten. The site is outside of any Annex 1 designated habitat and there will be no significant impacts on any Natura 2000 site or their Annex 1 habitats.

The issue of wastewater management has already been discussed with a new WWTP and Percolation Area be to installed modern standards as per the EPA Code of Practice 2021.

A Method Statement has been prepared which deals with mitigation and precautionary measures to be undertaken during the demolition and site clearance stage and the construction phase.

The method statement for the construction works which includes mitigation and precautionary measures eliminates any potential for indirect impacts through site drainage or siltation potentially impacting the water quality of the Unshin River SAC and therefore any habitats or species listed as the qualifying interests.

There will be no significant impacts via indirect means by surface water discharges as these have been carefully planned and designed to create no possibility of significant impacts upon Unshin River SAC and its qualifying interests.

3.5.4 Causing serious or ongoing disturbance to species or habitats for which the Natura 2000 site is selected (e.g. increased noise, illumination and human activity)

The proposed dwelling house and associated works at Ardcotten will cause no disturbance during construction works. The construction works are physically separated from the Unshin River SAC by a significant distance and are upslope from the SAC site boundary.

The method statement for the construction works which includes mitigation and precautionary measures eliminates any potential for indirect impacts through site drainage or siltation potentially impacting upon the water quality of the Unshin River SAC.

The development poses no potential new impact or significant impact upon the maintenance of species or habitats at the Natura 2000 site.

3.5.5 Causing direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site

The proposed dwelling house and associated works at Ardcotten will have no direct or indirect damage to the size, characteristics or reproductive ability of populations on the Natura 2000 site.

The proposed development will not compromise or negatively impact upon water quality, which could impact upon fish populations and plant species and invertebrates upon which the Salmon, Otters and birdlife feed.

3.5.6 Interfering with mitigation measures put in place for other plans or projects

The proposed development at this existing site will have no direct or indirect impacts upon mitigation measures put in place for other plans or projects. The proposed development is considered reasonable and well thought out and sensitive to the existing site and has been discussed with Sligo County Council during pre-planning discussions.

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3.5.7 Potential Cumulative Effects from Other Plans or Projects upon Natura 2000 Site

The proposed dwelling house and associated works at Ardcotten will have no significant negative direct or indirect impacts upon the Unshin River SAC site. The development will not create a cumulative impact upon the Natura 2000 site in combination with any other plans or projects.

3.5.8 Have the Conservation Objectives Been Met

It is reasonable to determine that the conservation objectives of a European Site will be met if its habitats and species are maintained at a favourable conservation status. Given that the proposed dwelling house and associated works at Ardcotten will not have a negative impact upon the Annex 1 Habitats or Annex II Species, nor upon surface waters through the implementation of precautionary and mitigation measures, it is concluded that the conservation objectives of the Unshin River SAC site will be met by allowing the proposed re-development works to proceed.

3.6 Conclusions of Natura Impact Statement Report

The findings and conclusions of the Appropriate Assessment Natura Impact Statement have been documented, with the necessary supporting evidence and objective criteria. The NIS conclusions are that the Application for planning permission for a dwelling house and associated works at Ardcotten will:

1. Have no significant impact upon surface water quality either during the construction phase or the post construction phase. The proposed development will not cause deterioration of water quality, which would have a negative impact upon the Unshin River SAC Natura 2000 site. This is confirmed through the precautionary and mitigation measures incorporated into the Method Statement for the construction works.

2. There will no loss of any Natura 2000 site area. There will be no loss or fragmentation of Annex I habitats; or Annex II species upon which any Natura 2000 site qualifies for its conservation status as a consequence of permitting the proposed development to proceed. This is due to the nature and limited scale of the proposed development and the separation distance of the actual site works from the River Unshin SAC site.

3. There will be no cumulative impact upon any Natura 2000 sites in combination with other plans or projects.

4. The proposed development will not compromise the maintenance of Annex I habitats for which any Natura 2000 site has been selected at favourable conservation status through the incorporation of appropriate mitigation measures which will suitably prevent any adverse impact on the integrity of the Natura 2000 network.

5. It is concluded that the conservation objectives of the Unshin River SAC site will be met as the habitats and species will be maintained at a favourable conservation status. **The NIS findings and conclusions remove all reasonable scientific doubt as to the effects that the works proposed may have on the Natura 2000 sites.**

Therefore, on the basis of objective scientific and factual information pertaining to the site and the proposed works, the proposed development either individually or in combination with other plans/projects will not have any significant effects on a European site – in particular the Unshin River SAC.

There is no scientific reason why the proposed development should be precluded from proceeding.

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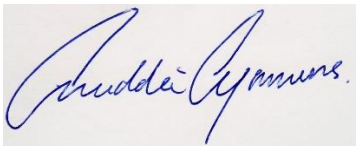
Yours sincerely,



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APPENDIX 1: SITE SYNOPSIS FOR THE UNSHIN RIVER SAC

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An Roinn
Ealaíon, Oidhreachta agus Gaeltachta
Department of
Arts, Heritage and the Gaeltacht

SITE SYNOPSIS

Site Name: Unshin River SAC

Site Code: 001898

The Unshin River runs from Lough Arrow north to Ballysadare Bay, Co. Sligo. The river is largely undrained and unaltered along much of its course. The marginal vegetation associated with the river is also included in the site, along with other semi-natural habitats adjacent to the river (included in order to enhance its protection). Many of these habitat types are interesting and of conservation value in their own right. Other watercourses included within the site are the Owenboy/ Owenbeg and a number of smaller tributaries. The Unshin River flows across a number of geological boundaries between sandstone, shales and limestone. This results in unusual physico-chemical qualities which in turn are reflected in the rich and varied plant and animal populations.

The site is a Special Area of Conservation (SAC) selected for the following habitats and/or species listed on Annex I / II of the E.U. Habitats Directive (* = priority; numbers in brackets are Natura 2000 codes):

[3260] Floating River Vegetation
[6210] Orchid-rich Calcareous Grassland*
[6410] *Molinia* Meadows
[91E0] Alluvial Forests*
[1106] Atlantic Salmon (*Salmo salar*)
[1355] Otter (*Lutra lutra*)

The Unshin River supports an excellent example of floating river vegetation. The diversity of aquatic macrophytes is exceptional, and to a certain extent the unusual combinations and richness of species can be accounted for by the good quality water being discharged from Lough Arrow upstream. The lake also imparts a stabilising influence on the flow regime and provides a source of lacustrine species – for example, Long-stalked Pondweed (*Potamogeton praelongus*). Plant species present which indicate base-rich conditions include Lesser Water-parsnip (*Berula erecta*), Blunt-fruited Water-starwort (*Callitriche obtusangula*), Fan-leaved Water-crowfoot (*Ranunculus circinatus*) and the internationally rare River Water-dropwort (*Oenanthe fluviatilis*). Species such as Lesser Marshwort (*Apium inundatum*), normally associated with more acidic peat pools, also occur. Fen and floating mire communities are represented by Bogbean (*Menyanthes trifoliata*), Cowbane (*Cicuta virosa*), Yellow Loosestrife (*Lysimachia vulgaris*) and Water Avens (*Geum rivale*). A rare and unusual alga, *Nostoc parmelioides*, is also present.

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There are a number of areas of woodland, many of which flood, included within the site. These wet alluvial woodlands are found on water-logged soils and species such as Alder (*Alnus glutinosa*), Ash (*Fraxinus excelsior*), willows (*Salix* spp.), Pedunculate Oak (*Quercus robur*) and birch (*Betula* spp.) are common. Occasionally, Lime (*Tilia* sp.) and Horse-chestnut (*Aesculus hippocastanum*) are found also. The ground flora is diverse in places, and species such as Meadowsweet (*Filipendula ulmaria*), Wild Angelica (*Angelica sylvestris*), Lesser Celandine (*Ranunculus ficaria*), Wood Anemone (*Anemone nemorosa*), Yellow Iris (*Iris pseudacorus*), Bracken (*Pteridium aquilinum*), Reed Canary-grass (*Phalaris arundinacea*), Soft Rush (*Juncus effusus*), Common Valerian (*Valeriana officinalis*), Bramble (*Rubus fruticosus* agg.), Enchanter's-nightshade (*Circaea lutetiana*), Purple Loosestrife (*Lythrum salicaria*), Golden Saxifrage (*Chrysosplenium oppositifolium*), Greater Tussock-sedge (*Carex paniculata*), Remote Sedge (*Carex remota*), Bottle Sedge (*C. rostrata*), Common Nettle (*Urtica dioica*), Hart's-tongue (*Phyllitis scolopendrium*), Broad Buckler-fern (*Dryopteris dilatata*) and Lady-fern (*Athyrium filix-femina*) are all found. A number of non-native shrub species, some of which are invasive, are found: Snowberry (*Symphoricarpos albus*), Rhododendron (*Rhododendron ponticum*) and Cherry Laurel (*Prunus laurocerasus*). The non-native herbs Japanese Knotweed (*Reynoutria japonica*) and Giant Hogweed (*Heracleum mantegazzianum*) have also been recorded.

Areas of grassland, ascribable to the E.U. Habitats Directive Annex I types: Orchid-rich Calcareous Grassland and *Molinia* Meadows, have been reported at Cloonmacduff, according to the Irish Semi-natural Grasslands Survey, 2010. There are also extensive wetlands within this site, and one area contains the Red Data Book plant Swamp Meadow-grass (*Poa palustris*).

The Unshin and its tributaries form a very important system for Atlantic Salmon, a species that is listed on Annex II of the E.U. Habitats Directive. The Owenboy/ Owenbeg river is the principle spawning and nursery tributary for the system's salmon fishery. The Unshin and its tributaries is the most important salmon producing river in Co. Sligo. The system also supports a good population of Trout.

The Annex II species Otter has been recorded in and near this site.

Two notable bird species which occur along the river are Whooper Swan, which feeds in the wet grasslands that flank the river, and Kingfisher. Both are listed on Annex I of the E.U. Birds Directive.

The trophic status of the river increases downstream indicating that some enrichment is taking place. However, the quality of the Unshin River and particularly its aquatic macrophyte communities, make it rare in both an Irish and European context, and it is considered one of the most pristine rivers in the country.