AVRIO

Appropriate Assessment Screening & Natura Impact Statement

O'Connor's Yard, Main Street, Ballisodare, Co. Sligo

Project Details

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Date of Issue:	19th July 2022 (V1); 16th February 2024 (V2); 7th March 2024 (V3); 20th March 2024 (V4); 19th Nov 2024 (V5)
Client:	Declan O'Connor
Site Address	O'Connors Yard, Main Street, Ballysadare, Co. Sligo
Services Provided:	Preparation of an 'Article 6 (3) Appropriate Assessment Screening & Natura Impact Statement

AVRIO Quality Information

Produced by:	Callum Neill (Ecological Consultant) **AVRIO Environmental Management**	Signed: 
Reviewed by:	Amy Gallagher (Ecological Consultant) **AVRIO Environmental Management**	Signed: 
Approved by:	Fergal Maguire (Principal Ecologist) **AVRIO Environmental Management**	Signed: 

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Where field investigations were carried out, these investigations have been restricted to a level of detail required to meet the stated objectives of the services. The results of any measurements taken may vary spatially or with time, and further confirmatory analyses should be made after any significant delay in issuing this report.

Contents

1. Introduction

1.1 Background

AVRIO Environmental Management Limited, hereafter "AVRIO", has been appointed by Declan O'Connor to undertake an Appropriate Assessment Screening and, if required, a Natura Impact Statement for a proposed development located at O'Connor's Yard, Main Street, Ballysadare, Co. Sligo (Irish Grid Reference: G 66875 29070).

This Appropriate Assessment Screening and Natura Impact Assessment was prepared for a proposed development at O'Connor's Yard, Main Street, Ballysadare. Having regard to the location of the proposed development site and its proximity to sites designated under the Natura 2000 network, an Appropriate Assessment of the proposed development was prepared in accordance with Article 6 of the Habitats Directive. This report will allow the Competent Authority, in this case, Sligo County Council, to undertake an Appropriate Assessment of the proposed development, as required under Article 6(3) of the Habitats Directive[1].

The purpose of the assessment is to determine the appropriateness of the proposed project in the context of the conservation status of a European protected site or sites. In Ireland, an Appropriate Assessment takes the form of a Natura Impact Statement (NIS), which is a statement of the likely impacts of the plan or project on a Natura 2000 site. The NIS comprises a comprehensive assessment of the plan or project, and it examines the direct and indirect impacts that the plan or project might have on its own or in combination with other plans or projects on one or more Natura 2000 sites in view of the sites' conservation objectives.

1.3 The Aim of the Report

This Appropriate Assessment Screening and Natura Impact Statement has been prepared in accordance with the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018)[2] as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010)[3], and it provides an assessment of the potential effects of a proposed development at O'Connor's Yard, Main Street, Ballysadare, Co. Sligo.

An NIS should provide the information required in order to establish whether or not a proposed development is likely to have a significant impact on certain Natura 2000 sites in the context of their conservation objectives and specifically on the habitats and species for which the Natura 2000 conservation sites have been designated.

[1] EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission
[2] EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
[3]DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February 2010. Department of the Environment, Heritage, and Local Government;

Accordingly, a comprehensive assessment of the potential impacts of this application was carried out between June 2022 and January 2024 by AVRIO. This assessment allowed areas of potential ecological value and potential ecological constraints associated with this proposed development to be identified and it also enabled potential ecological impacts associated with the proposed development to be assessed and mitigated for.

1.4 Regulatory Context

1.4.1 Relevant Legislation

1.4.1.1 The Birds Directive

- The Birds Directive (Council Directive2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats[4]. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly occurring populations of migratory bird species, and the SPA areas are of international importance for these migratory birds.

1.4.1.2 The EU Habitats Directive

- The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.[5] Articles 6(3) and 6(4) of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs).

1.4.1.3 The Water Framework Directive

- The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003)[6]. The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2021 and that status does not deteriorate in any waters.

[4] European Communities (Conservation of Wild Birds) Regulations, 1985, SI 291/1985 & amendments – http://www.irishstatutebook.ie;
[5] European Communities (Natural Habitats) Regulations, SI 94/1997, SI 233/1998 & SI 378/2005 – http://www.irishstatutebook.ie;
[6] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.

1.4.2 Appropriate Assessment & Habitats Directive

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the 'Habitats Directive' - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest at a favourable conservation status[7]. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC)[8].

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans or projects affecting Natura 2000 sites[9]. Article 6(3) establishes the requirement for Appropriate Assessment:

"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."

Article 6(4) deals with the steps that should be taken when it is determined, as a result of appropriate assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case[10].

Article 6(4) states:

"If in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

[7] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
[8] Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds
[9] EC (2007a) 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. Office for Official Publications of the European Communities, Luxembourg. European Commission
[10] EC (2007b) Interpretation Manual of European Union Habitats. Version EUR 27. European Commission, DG Environment;

1.4.3 Screening for Appropriate Assessment

Screening is the process of determining whether an Appropriate Assessment is required for a plan or project. Under Part XAB of the Planning and Development Act, 2000, as amended, screening must be carried out by the Competent Authority. Section 177U of the Planning and Development Act, 2000, as amended, states[11]

'A screening for appropriate assessment shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site'.

The Competent Authority's determination as to whether an Appropriate Assessment is required must be made on the basis of objective information and should be recorded. The Competent Authority may request information to be supplied to enable it to carry out a screening.

Consultants or project proponents may provide for the competent Authority with the information necessary for them to determine whether an Appropriate Assessment is required and provide advice to assist them in the Article 6(3) Appropriate Assessment Screening decision.

Where it cannot be excluded beyond reasonable scientific doubt at the Screening stage, that a proposed plan or project, individually or in combination with other plans and projects, would have a significant effect on the conservation objectives of a European site, an Appropriate Assessment is required.

1.4.4 Natura Impact Statement

Where an Appropriate Assessment is required, the Competent Authority may require the applicant to prepare a Natura Impact Statement. The term Natura Impact Statement (NIS) is defined in legislation[12]. A NIS, where required, should present the data, information, and analysis necessary to reach a definitive determination as to 1) the implications of the plan or project, alone or in combination with other plans and projects, for a European site in view of its conservation objectives, and 2) whether there will be adverse effects on the integrity of a European site. The NIS should be underpinned by the best scientific knowledge, objective information and by the precautionary principle. This Appropriate Assessment Screening and Natura Impact Statement has been prepared in compliance with the provision of section 177U of the Planning & Development Act 2010 as amended.

1.5 Statement of Authority

Callum Neill MSci (Hons): This report has been prepared by Callum Neill. Callum is an ecologist at AVRIO Environmental Management. Callum has a master's degree in marine biology from Queen's University Belfast. Callum has been undertaking environmental surveys in Northern Ireland and the Republic of Ireland since 2020 including Preliminary

[11] DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February 2010. Department of the Environment, Heritage and Local Government;
[12] As defined in Section 177T of the Planning and Development Act, 2000 as amended, an NIS means a statement, for the purposes of Article 6 of the Habitats Directive, of the implications of a proposed development, on its own and in combination with other plans and projects, for a European site in view of its conservation objectives. It is required to include a report of a scientific examination of evidence and data, carried out by competent persons to identify, and classify any implications for the European site in view of its conservation objectives.

Ecological Appraisal (PEA), Preliminary Roost Assessments (PRA) and bat emergence/re-entry surveys on a variety of sites. Callum also has vast experience in leading intertidal surveys and at-sea/marine surveys, working for a variety of non-governmental organisations and academic institutions. Callum has experience contributing to habitat assessments including JNCC Phase I Habitat Surveys and Fossitt Habitat Surveys as well as producing a range of ecological reports including Preliminary Ecological Appraisals, Invasive Species Management Plans, Habitat Regulation Assessments (HRA/AASR/NIS).

Amy Gallagher BSc (Hons), MSc, QCIEEM: This report has been reviewed by Amy Gallagher. Amy is an Ecologist at AVRIO Environmental Management. She holds a BSc (Hons) in Ecological Management and an MSc in Ecological Management and Conservation Biology from Queens University Belfast. Amy is an ecologist with over 4 years of experience within the environmental industry. Amy is a qualifying member of the Chartered Institute of Ecology and Environmental Management (CIEEM), an organisation requiring peer review and a high standard of professional conduct. Amy has experience contributing to Ecological Impact Assessments (EcIA) including assessments for priority species such as Bats, Badger, Otter, Marsh Fritillary, Dragonfly and Damselfly, and habitats assessments including Phase I and Fossitt Habitat Surveys. Amy has experience in Habitat Regulation Assessment (HRA/AASR/NIS), Invasive Species Surveys and Management and production of site-specific mitigation proposals for a range of developments throughout Northern Ireland and the Republic of Ireland.

Fergal Maguire NDA, BSc (Hons), PIEMA: This report has been reviewed by Fergal Maguire. Fergal is the General Manager and a Principal Environmental and Ecological Consultant at AVRIO Environmental Management. He holds an NDA and BSc (Hons) in Environmental Science from the Institute of Technology, Sligo. Fergal is a member of the Institute of Environmental Management & Assessment (IEMA), an organisation requiring peer review and a high standard of professional conduct. He has over 10 years of experience within the environmental industry. He has experience contributing to a number of Environmental Impact Assessments, environmental licence and surrender applications, including Industrial Emissions Licences (IEL), Integrated Pollution Control Licences (IPC) and Waste Licences for submission to the Irish Environmental Protection Agency (EPA), Northern Ireland Environment Agency (NIEA), Scottish Environment Protection Agency (SEPA), United Kingdom Environment Agency (E.A.) and a number of Local Authorities throughout the U.K. and Ireland. Fergal has extensive experience in the sustainable development and management of a number of IED licenced facilities throughout Ireland, the U.K. and greater Europe, as well as general consultancy within the waste management, environmental compliance, and ecological sectors. Fergal has extensive experience in Ecological Impact Assessments (EcIA), including priority species such as Bats, Badger, Otter, Red Squirrel, Pine marten and breeding birds, and habitats assessments, including Phase I and Fossitt Habitat Surveys. Fergal has extensive experience in Habitat Regulation Assessments (HRA/AASR/NIS), Ecological Clerk of Works (ECoW), Invasive Species Surveys and Management and production of site-specific mitigation proposals for a range of developments throughout Northern Ireland and the Republic of Ireland.

2. Methodology

2.1 Appropriate Assessment

In addition to the guidelines referenced above, the following relevant documents were also considered in the preparation of this report:

1. Council of the European Commission (1992) Council Directive 92/43/EEC of 21st May 1992 on the conservation of natural habitats and of wild fauna and flora. Official Journal of the European Communities. Series L 20, pp. 7-49.[13]
2. EC (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg.[14]
3. European Commission (2001). 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.[15]
4. European Commission (2006). Nature and Biodiversity Cases: Ruling of the European Court of Justice.[16]
5. EC (2007) 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.[17]
6. EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission.[18]
7. European Commission (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.[19]
8. Department of Environment, Heritage, and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.[20]
9. National Parks and Wildlife Service (2019). Article 17: The Status of EU Protected Habitats and Species in Ireland. [21]
10. European Communities (Natural Habitats) (Amendment) Regulations 2005[22];

[13] EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
[14] EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
[15] EC (2001) Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Articles 6(3) and (4) of the Habitats Directive 92/43/EEC;
[16] EC (2006) Nature and Biodiversity Cases: Ruling of the European Court of Justice, Office for Official Publications of the European Communities, Luxembourg. European Commission;
[17] EC (2007a) 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. Office for Official Publications of the European Communities, Luxembourg. European Commission;
[18] EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. Office for Official Publications of the European Communities, Luxembourg. European Commission.
[19] EC (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. . Office for Official Publications of the European Communities, Luxembourg. European Commission.
[20] DoEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February 2010. Department of the Environment, Heritage and Local Government
[21] NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report.
[22] EC (1997) 2006. The European Communities (Natural Habitats)(Amendment) Regulations 2005.

The EC Guidance sets out a number of principles as to how to approach decision-making during the process. The primary one is 'the precautionary principle, which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty.[23]

When considering the precautionary principle, the emphasis for assessment should be on objectively demonstrating with supporting evidence that:

- There will be no significant effects on a Natura 2000 site;
- There will be no adverse effects on the integrity of a Natura 2000 site;
- There is an absence of alternatives to the project or plan that is likely to have an adverse effect on the integrity of a Natura 2000 site; and
- There are compensation measures that maintain or enhance the overall coherence of Natura 2000.

This translates into a four-stage process to assess the impacts, on a designated site or species, of a policy or proposal.[24]

The EC Guidance states that "each stage determines whether a further stage in the process is required". Consequently, the Council may not need to proceed through all four stages in undertaking the Appropriate Assessment.

The four-stage process is:

Stage 1: Screening – The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether or not these impacts are likely to be significant;

Stage 2: Appropriate Assessment – The consideration of the impact on the integrity of the Natura 2000 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 impacts, an assessment of the potential mitigation of those impacts;

Stage 3: Assessment of Alternative Solutions – The process which examines alternative ways of achieving objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain – An assessment of the compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

[23] DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DEHLG, Dublin;
[24] DEHLG (2010). Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Revision, February 2010. Department of the Environment, Heritage and Local Government;

In complying with the obligations set out in Articles 6(3) and following the guidelines described above, this Natura Impact Statement has been structured as a stage-by-stage approach as follows:

- Description of the proposed project;
- Identification of the Natura 2000 sites close to the proposed development;
- Identification and description of any individual and cumulative impacts on the Natura 2000 sites likely to result from the project;
- Assessment of the significance of the impacts identified above on-site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects;
- Description of proven mitigation measures.

2.2 Desk Study

Information pertaining to the proposed site and the surrounding environment was studied and assessed prior to the completion of this assessment. The following data sources were accessed in order to complete a thorough examination of potential impacts:

- National Parks and Wildlife Service (NPWS) online map viewer[25];
- Mammals, Amphibians and Reptiles website[26];
- Ordnance Survey Ireland Map Viewer: Geohive[27];
- Environmental Protection Agency Geographic Information System (EPAGIS)[28];
- National Biodiversity Data Centre (NBDC)[29];
- NPWS Article 17 Metadata and GIS Database[30];
- Geological Survey Ireland, Department of the Environment, Climate and Communications Map Viewer[31];
- Sligo County Council Planning Portal[32];

[25] National Parks and Wildlife Service: National Parks & Wildlife Service (npws.ie)
[26] Mammals, Amphibians and Reptiles: http://www.habitas.org.uk/nimars/
[27] Ordnance Survey Ireland Map Viewer - GeoHive: https://webapps.geohive.ie/mapviewer/index.html
[28] Environmental Protection Agency Geographic Information System : https://gis.epa.ie/EPAMaps/
[29] National Biodiversity Data Centre: www.biodiversityireland.ie
[30] NPWS Article 17 Metadata and GIS Database: https://www.npws.ie/maps-and-data/habitat-and-species-data/article-17
[31] Geological Survey Ireland Map Viewer: https://dcenr.maps.arcgis.com/apps/MapSeries/index
[32] Sligo County Council Planning Portal: Sligo County Council Planning Portal

- Vincent Hannon Architects[33].

2.3 Site Location & Current Use

The proposed development site is located at O'Connor's Yard, Main Street, Ballysadare (Irish Grid Reference: G 66875 29070).

The site is located approximately 35m south of Ballysadare town centre, 7.4km southwest of Sligo town centre, and 59km southwest of Enniskillen town centre. The area surrounding the site consists of the N4 national road from Sligo to Dublin and residential properties associated with Fairgreen Square to the east, Ballysadare River to the south, the N59 national road from Sligo to Galway to the west, and commercial properties associated with Ballysadare town to the north.

The wider environs include interspersed areas of road, agricultural grassland, watercourses, residential dwellings, commercial properties, hedgerows, and treelines.

The proposed development is situated within 2km of four SACs or SPAs; Unshin River SAC is 1.5m to the south of the site, Ballysadare Bay SAC is 515m to the northwest of the site, Ballysadare Bay SPA is 695m to the northwest of the site, and Union Wood SAC is 1.1km to the southeast of the site. The development site is within 1km of Natural Heritage Areas (NHA) or proposed Natural Heritage Areas (pNHA); Ballysadare Bay pNHA is 695m to the northwest of the site, Slieveward Bog NHA is 830m to the southwest of the site, and Union Wood pNHA is 1.1km to the southeast of the site. The site is not within 1km of any listed Nature Reserves; the closest is Union Wood Nature Reserve, situated 1.1km to the southeast of the site. The site is not within 1km of any listed ancient woodlands; the closest is Union Wood, situated 1.1km to the southeast of the site.

The current site is primarily used for storage of containers and other units to the rear with a public house to the west and old derelict buildings to the north and south of the public house. The site consists of habitats such as ornamental and non-native shrubs, treelines, refuse, buildings and artificial surfaces, spoil, and bare ground, and recolonising bare ground. Picture 1 – 6 below illustrates the proposed development area – Additional pictures of the site are presented in the Ecological Appraisal associated with this site. Figure 1 details the site location within the environs of Ballysadare, Co. Sligo and additionally details the site boundary location within the immediate environs.

[33] Vincent Hannon Architects – Site Layout Plans

Picture 1: Recolonising Bare Ground (ED3) on-site

Picture 2: Buildings and Artificial Surfaces (BL3) on-site

Picture 3: Refuse and Other Waste (ED5) on-site

Picture 4: Treeline (WL2) on-site

Picture 5: Spoil and Bare Ground (ED2) on-site

Picture 6: Ornamental/Non-Native Shrub (WS3) on-site


Br. Ht.
5.15m
Br. Ht.
5.88m
Ballydrehid
Br.
Belladrihid
RECEIVED: 21/11/2024
130MP
N59
Abbey
Church
Schs
PO
BALLYSAD
Baile Easa
N4
Ballysadare R.
Oak Wood Trail
Kilboglashy
Knoxspark
129MP
Corhawnagh
Megalithic
Tomb
Cooney
Lough
Cooney
Corhawnagh
Lough
Enyneill Lough
55
46
45
40
22
30
23
38

2.4 Characteristics of the Proposed Development

2.4.1 Description of the Project

Permission is sought for:

1. Removal of derelict buildings and a shed, with key facades reinstated and materials like stone repurposed for landscaping.
2. Erection of 18 units comprising 1- to 5-bedroom homes (2-no. 1-Bedroom Units, 4-no. 2-Bedroom Units, 7-no. 3-Bedroom Units and 5-no. 4+ Bedroom Units. To meet density targets at 27.2 units/ha with private gardens for each unit.
3. Erection of a 419.5m², 13-room hostel accommodating approximately 29 bed spaces.
4. Redevelopment of a derelict building into a 292.5m² restaurant, retaining street and gable elevations.
5. Provision of 39 car spaces, including 4 for Electric Vehicles and 4 for disabled access.
6. Creation of 1,844m² of public open space with landscaped areas, a riverside walkway, and biodiversity zones.
7. Creation of 20-no. bike parking spaces;
8. Hard and soft landscaping, including creating private open space for residents.
9. All associated development works on-site.

Appendix F attached details the Site Layout Plan.

2.4.2 Description of the Baseline Ecological Environment

Assessing the impacts of any project and associated activities requires an understanding of the ecological baseline conditions prior to and at the time of the project proceeding. Ecological baseline conditions are those existing in the absence of proposed activities[35].

A walkover of the site was undertaken on 19th of June 2022 by a qualified ecologist; a re-survey was undertaken of the site on the 26th of January 2024 due to the time lapse between the initial survey and the application for planning. Habitat present was identified in accordance with the Heritage Council's 'Guide to Habitats in Ireland'[36]. Plant nomenclature for vascular plants follows 'New Flora of the British Isles, while mosses and liverworts nomenclature follows 'Mosses and Liverworts of Britain and Ireland - a field guide'.

The walkover survey was designed to detect the presence, or likely presence, of a range of protected species and habitats. The walkover survey comprehensively covered the entire study area of the subject development and surrounding habitats.

[35] CIEEM, 2018, Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine;
[36] Fossitt, J. A. (2000). A Guide to Habitats in Ireland. Dublin: The Heritage Council;

2.4.2.1 Habitats

Habitats located within the site boundary include:

- BL3 – Buildings and Artificial Surfaces
- ED5 – Refuse and Other Waste
- ED3 – Recolonising Bare Ground
- WL2 – Treeline
- WS3 – Ornamental/Non-Native Shrub
- ED2 – Spoil and Bare Ground

2.4.2.2 Biodiversity Net Gain

As part of the development application, a Biodiversity Net Gain (BNG) assessment was conducted by AVRIO to ensure the site at O'Connors Yard, Ballysadare achieves BNG in line with the trading rules. The detailed findings are outlined in the report produced for Declan O'Connor (AEMP-273 – AHBG-T24). The BNG objectives were successfully met, with the post-development landscape, as per the Landscape Masterplan, including the planting of 60 trees, the creation of 0.0145 hectares of Ornamental Planting and 0.011 km of native hedgerow. These new habitats compensate for the loss of areas of Introduced Shrub and Sparsely Vegetated Land habitats on-site.

Legend:

- Site Boundary
- Outline of Buildings
- ED3- Recolonising Bare Ground
- WS3- Ornamental/Non-Native Shrub dominated by Giant Hogweed
- ED2- Spoil and Bare Ground
- BL3- Buildings and Artificial Surfaces
- ED5- Refuse and Other Waste
- WL2- Treeline
- Target Note 1- Winter Heliotrope
- Target Note 2- Buddleia

*Structures are not mapped to allow for better visibility of ground vegetation. However, structures with the potential to serve as bat roosts are indicated in Figure 3.

Project Title: AEMP-2000273 Dublin Road, Ballisodare, Co. Sligo	
Drawing Title: Fossitt Habitat Classification	
Drawn By: CN	Checked By: FM
Project No: 2000273	Drawing No: Figure 2
Scale: 1/850	Date: 15th March 2024

AVRIO
Head Office-Enniskillen
Unit 5, Abbey House Business Centre,
11 Head Street, Enniskillen,
Co. Fermanagh, BT74 7JL
Website: www.avrio-env.com
Email: info@avrio-env.com
Phone: 028 6633 5608

2.4.2.3 Invasive Species (Flora) Survey

The site and associated buffer zone was searched for invasive non-native species, focusing on those species listed on the Third Schedule of Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011[37]. Invasive species included in this list include Japanese Knotweed (*Fallopia japonica*), Giant Hogweed (*Heracleum mantegazzianum*), Giant Knotweed (*Fallopia sachalinensis*), Giant Rhubarb (*Gunnera manicata*), Himalayan Balsam (*Impatiens glandulifera*), Himalayan Knotweed (*Polygonum polystachyum),* Bohemian Knotweed (*Fallopia bohemica*) and Rhododendron (*Rhododendron ponticum*).

The invasive species survey carried out by AVRIO identified three invasive species on-site: Giant Hogweed (*Heracleum mantegazzianum*), Winter Heliotrope (*Petasites pyrenaicus*), and Buddleia (*Buddleja davidii*). Giant Hogweed is listed under the 'Regulation 49: Prohibition on introduction and dispersal of certain species, which places restrictions on the introduction of any plant species listed in Part 1 of the Third Schedule'. An Invasive Species Management Plan (ISMP) is required, to ensure this plant does not spread during development works on-site; this recommendation is further detailed in the Ecological Appraisal produced by AVRIO associated with this development, and below as a recommended method of mitigation against a potential pollution pathway.

Winter Heliotrope and Buddleia, while not listed on the above regulations, are included in the NRA Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads[38] as these species have been shown to have an adverse impact on landscape quality, native biodiversity, or infrastructure; and are likely to be encountered during road schemes. Recommended management options are detailed in the Ecological Appraisal produced by AVRIO associated with this development.

2.4.2.4 Species

The site was deemed optimal for commuting and foraging bats (Refer to the preliminary roost assessment report associated with this development for further information on bat roost assessments for trees on-site).

Bat Roost Assessment for Trees

All trees on-site were assessed as having negligible bat roosting potential, due to the lack of suitable roosting features for bats to utilise e.g., cracks/crevices. No further survey is required.

Bat Roost Assessment for Buildings

[37] Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora [Habitats Directive] and Directive 2009/147/EC [codified version of Directive 79/409/EEC as amended] [Birds Directive] transposed into Irish law as European Communities [Birds and Natural Habitats] Regulations 2011 [SI 477/2011].

[38] NRA Guidelines on the Management of Noxious Weeds and Non-native Species on National Roads 2010

The buildings on-site were identified as B1, B3 and B5.

B1 on-site has been assessed as being of **Moderate Suitability** for roosting bats in accordance with guidelines. Two bat emergence/re-entry surveys should be undertaken between May and September in accordance with BCT Guidelines.

B3 on-site has been assessed as being of **Moderate Suitability** for roosting bats in accordance with guidelines. Two bat emergence/re-entry surveys should be undertaken between May and September in accordance with BCT Guidelines.

B5 on-site has been assessed as being of **Moderate Suitability** for roosting bats in accordance with guidelines. Two bat emergence/re-entry surveys should be undertaken between May and September in accordance with BCT Guidelines.

Buildings B2, B4, and B6 underwent a bat roost potential assessment, although they are located outside the site boundary. If future plans include the conversion, modification and/or demolishment of these buildings then bat emergence/re-entry surveys would be required.

B2 outwith the site boundary has been assessed as being of **Low Suitability** for roosting bats in accordance with guidelines. If this building is incorporated into future site plans and to be modified or destroyed, one emergence/re-entry survey would be undertaken between May and August inclusive in accordance with BCT Guidelines.

B4 outwith the site boundary has been assessed as being of **Low Suitability** for roosting bats in accordance with guidelines. If this building is incorporated into future site plans and to be modified or destroyed, one emergence/re-entry survey would be undertaken between May and August inclusive in accordance with BCT Guidelines.

B6 outwith the site boundary has been assessed as being of **Low Suitability** for roosting bats in accordance with guidelines. If this building is incorporated into future site plans and to be modified or destroyed, one emergence/re-entry survey would be undertaken between May and August inclusive in accordance with BCT Guidelines.

(Refer to the Ecological Appraisal associated with this development for further information on bat roost assessments for buildings on-site).

Bat Roost Assessment for all other Structures

Forty-four portacabins, and several storage containers and caravans were present on-site. Fourteen of these portacabins were assessed as being of low bat roosting potential. All structures will be removed as part of works on-site. The location of the fourteen portacabins assessed as being of low/precautionary low bat roost potential are listed as follows:

- G 66906 29056
- G 66896 29028
- G 66903 29038
- G 66893 29032

- G 66908 29011
- G 66872 29028
- G 66846 29060
- G 66899 29067
- G 66879 29093
- G 66883 29012
- G 66884 29021
- G 66858 29071
- G 66885 29082
- G 66896 28999

The fourteen portacabins identified as having low bat roosting potential will require one emergence/re-entry survey between May and August in accordance with BCT and NPWS Guidelines. (Refer to the Ecological Appraisal associated with this development for further information and pictures on bat roost assessments for structures on-site).

Otter (*Lutra lutra*) Survey

No Otter Spraints, Footprints, Paths/slides, Holts, or Urination 'green spots' were identified on-site or within the immediate vicinity of the site. No field drains were present on-site. The site itself is considered sub-optimal for otters due to lack of watercourses or suitable habitat for holt creation. Moreover, the riverbanks of the Ballysadare River, situated beyond the southern site boundary, were deemed unsuitable for holt creation due to their weak structure and susceptibility to flooding. Otters are a highly mobile species and may access the peripheries of the site for commuting purposes from time to time. General recommendations have been provided in the Ecological Appraisal for site safeguarding of Otter and other mammals during construction activities.

Badger *(Meles meles)* Survey

No Badger setts, latrines or snuffle holes were identified within the site's boundary or within a 30m buffer of the site. The site itself was deemed sub-optimal for badgers due to lack of suitable habitat for sett creation. The site also lacked foraging potential for badgers, and it is therefore unlikely that commuting and foraging badgers would utilise the site.

Breeding Birds Habitat Suitability Assessment

No nests or breeding birds were identified on-site. Treelines on-site are considered optimal locations for breeding birds. General mitigation and recommendations have been provided in the Ecological Appraisal to ensure no adverse impacts on breeding birds arise due to development works on-site.

Smooth Newt (*Lissotriton vulgaris*) Habitat Suitability Assessment

A habitat suitability assessment for Smooth Newt was conducted for the application site and its surrounding environs. The habitat assessment did not reveal evidence of this species. The habitat on-site was assessed as sub-optimal for smooth newt as there no watercourses on-site and Ballysadare river adjacent to the south of the site is a large, fast-flowing river, which is unsuitable for the species.

Red Squirrel (*Sciurus vulgaris*) Habitat Suitability Assessment

A Red Squirrel habitat suitability assessment was undertaken on-site. No specific evidence of this species was noted within the application boundary itself or in the immediate environs. That habitat on-site and within the surrounding environment was deemed to be of poor suitability for red squirrel, as there was limited habitat for drey creation, with no connectivity to suitable habitat in the wider environs.

Pine Marten (*Martes martes*) Habitat Suitability Assessment

A Pine Marten habitat suitability assessment was undertaken on-site. No specific evidence of this species was noted within the application boundary itself or in the immediate environs. That habitat on-site and within the surrounding environment was deemed to be of poor suitability for pine marten, as there was limited habitat for den creation, with no connectivity to suitable habitat in the wider environs.

Common Lizard (*Zootoca vivipara*) Habitat Suitability Assessment

A Common Lizard habitat suitability assessment was undertaken on-site. The habitat on-site was assessed as sub-optimal for common lizard, as it lacked suitable basking or breeding grounds for the species.

2.4.3 Description of the Baseline Geological Environment

2.4.3.1 Bedrock Geology

Bedrock under the site is known as the 'Abbeytown Limestone' consisting of crinoidal calcarenite and sandstone. The Abbeytown Limestone Member forms the basal unit of the Ballyshannon Limestone Formation in the Ballysadare area. It is composed of a basal pebbly coarse-grained calcarenite varying from 1-2m in thickness (the Lower Grit Bed)[39].

The Ballyshannon Limestone Formation is described as limestone with dark blue-grey, bioclastic, argillaceous packstones, interbedded with dark grey, silty shale; rarely with chert nodules in the upper part. Named members of this formation include sandstones such as that in Abbeytown Limestone above[40].

[39] Geological Survey Ireland Map Viewer: https://dcenr.maps.arcgis.com/apps/MapSeries/index
[40] British Geological Survey: https://data.bgs.ac.uk/id/Lexicon/NamedRockUnit/BAL

2.4.3.2 Aquifer Classification

The aquifer classification at the site is classed as a 'Locally Important Aquifer – Karstified'. A description of this aquifer is detailed below:

'Karstification' is the process whereby limestone is slowly dissolved away by percolating waters. It most often occurs in the upper bedrock layers and along certain fractures, fissures, and joints, at the expense of others. Karstification frequently results in the uneven distribution of permeability through the rock, and the development of distinctive karst landforms at the surface (e.g. swallow holes, caves, dry valleys), some of which provide direct access for recharge/surface water to enter the aquifer. The landscape is characterised by largely underground drainage, with most flow occurring through the more permeable, solutionally-enlarged, interconnected fissure/conduit zones, which may be several kilometres long. Groundwater velocities through fissures/conduits may be high and aquifer storage is frequently low. Groundwater often discharges as large springs (>2,000 m 3/d), which range from regular and dependable to highly variable ('flashy'). There is a strong interconnection between surface water and groundwater[41].

The degree of karstification ranges from slight to intense. Geological Survey of Ireland recognises two types of karst aquifer: those dominated by diffuse flow (Rkd) and those like the aquifer classified above dominated by conduit flow (Rkc).

2.4.3.3 Groundwater Vulnerability

Groundwater Vulnerability is a term used to represent the natural ground characteristics that determine the ease with which groundwater may be contaminated by human activities. More scientifically, groundwater vulnerability embodies the characteristics of the intrinsic geological and hydrogeological features at a site that determine the ease of contamination of groundwater. The vulnerability category assigned to a site, or an area is thus based on the relative ease with which infiltrating water and potential contaminants may reach groundwater in a vertical or sub-vertical direction. As all groundwater is hydrologically connected to the land surface, it is the effectiveness of this connection that determines the relative vulnerability to contamination. Groundwater that readily and quickly receives water (and contaminants) from the land surface is considered to be more vulnerable than groundwater that receives water (and contaminants) more slowly, and consequently in lower quantities. Additionally, the slower the movement and the longer the pathway, the greater is the potential for attenuation of many contaminants[42].

The Geological Survey Ireland classifies the groundwater vulnerability at the site to be 'High' category[43].

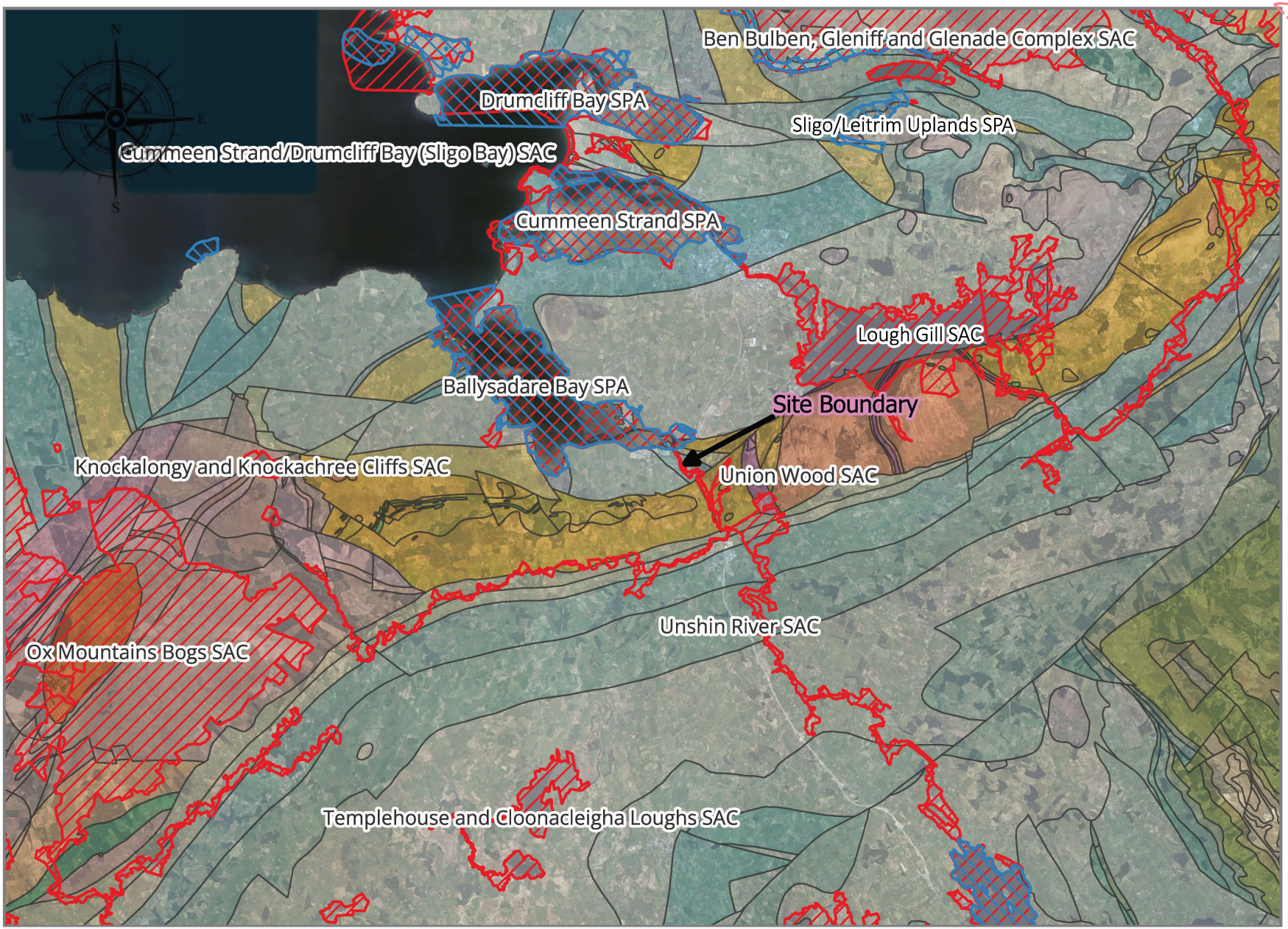
[41] Geological Survey Ireland: https://www.gsi.ie/en-ie/Pages/default.aspx
[42] Geological Survey Ireland - Groundwater Vulnerability: https://www.gsi.ie/en-ie/programmes-and-projects/groundwater/activities/understanding-ireland-groundwater/groundwater-vulnerability/Pages/default.aspx
[43] Geological Survey Ireland Map Viewer: https://dcenr.maps.arcgis.com/apps/MapSeries/index

2.4.3.4 Groundwater Flow Direction

The direction of groundwater flow follows a path through an aquifer from areas of high-water levels to areas where water levels are low. Water flows through aquifers to discharge points some distance down-gradient at a spring or offshore into the sea[44]; in this case, it can be assumed it discharges into the Ballysadare River outwith the southern site boundary, before flowing into Ballysadare Bay and then further the Atlantic Ocean.

[44] UK Groundwater Forum (Groundwater Flow): http://www.groundwateruk.org/downloads/groundwater_flow_and_quality.pdf

Bedrock Aquifer: Locally Important Aquifer- Karstified		Bedrock Polygons 100k ITM 2018: Abbeytown Limestone Formation					National Groundwater Vulnerability		
Aquifer Category	Category Description	New Code	Unit Name	Description	Formation	Lithological Description	Soil Permability Code	Depth to Bedrock (m)	Vulnerability Category
Locally Important Aquifer- Karstified	Rkc	CDBSNNA	Abbeytown Limestone	Crinoidal calcarenite	Abbeytown Limestone Member (Ballyshannon Limestone Formation)	It forms the basal unit of the Ballyshannon Limestone Formation in the Ballysadare area. It is composed of basal pebbly coarse grained calcarenite varying from 1-2 metres in thickness	N/A	1-2	High



Legend:

- Site Boundary
- SAC - Special Area of Conservation
- SPA - Special Protected Area

Project Title:

AEMP-2000273

Dublin Road, Ballisodare, Co. Sligo

Drawing Title:

Hydrogeology Map

Drawn By:	Checked By:
CN	FM
Project No: 2000273	Drawing No: Figure 3
Scale: 1/200000	Date: 15th March 2024

AVRIO

Head Office-Enniskillen
Unit 5, Abbey House Business Centre,
11 Head Street, Enniskillen,
Co. Fermanagh, BT74 7JL
Website: www.avrio-env.com
Email: info@avrio-env.com
Phone: 028 6633 5608

3. Identification of Relevant European Sites

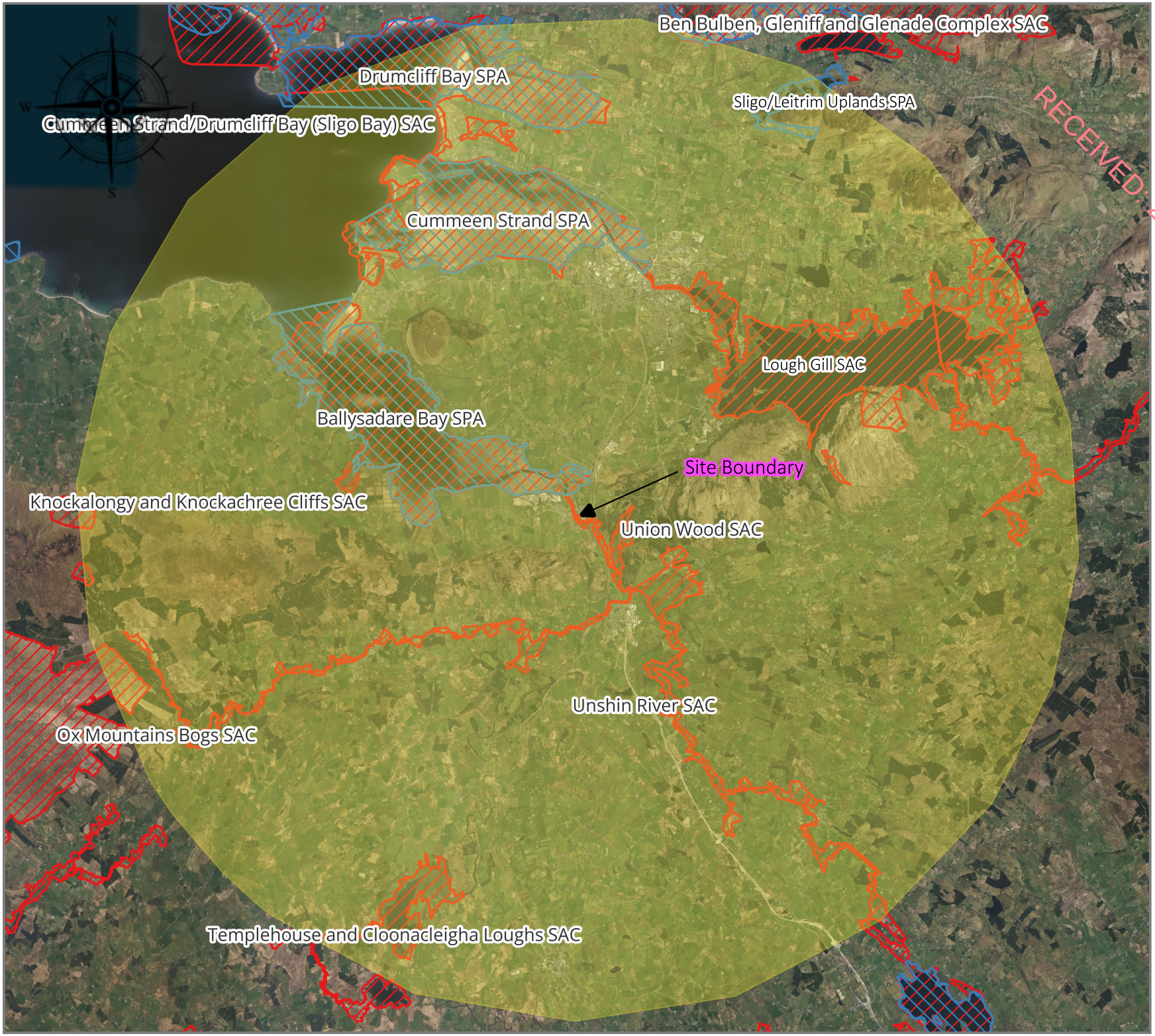
3.1 Identification of the European Sites within the Likely Zone of Impact

The following methodology was used to establish which European Sites are within the Likely Zone of Impact of the proposed development:

- The most up-to-date GIS spatial datasets for European designated sites and water catchments were downloaded from the NPWS website[45] and the EPA website[46] on the 24th of January 2024. These datasets were utilised to identify European Sites that could feasibly be affected by the proposed development;
- All European Sites within a distance of 15km surrounding the development site were identified and are detailed in Figure 4 below. In addition, the potential for connectivity with European Sites at distances greater than 15km from the proposed development was also considered. In this case, the proposed project does not give rise to the potential for likely significant effects on European Sites located beyond the 15km zone;
- In relation to Special Protection Areas, in the absence of any specific European or Irish guidance in relation to such sites, the Scottish Natural Heritage (SNH) Guidance, 'Assessing Connectivity with Special Protection Areas (SPA)' (2016) was consulted[47]. This document provides guidance in relation to the identification of connectivity between proposed developments and Special Protection Areas. The guidance considers the distances species may travel beyond the boundary of their SPAs and provides information on dispersal and foraging ranges of bird species that are frequently encountered when considering plans and projects;
- Table 3-1 provides details of all relevant European Sites identified in the preceding steps and assesses which are within the likely Zone of Impact. The assessment considers any likely direct or indirect impacts of the proposed development, both alone and in combination with other plans and projects, on European Sites by virtue of the following criteria: size and scale, land-take, distance from the European Site or key features of the site, resource requirements, emissions, excavation requirements, transportation requirements and duration of construction, operation and decommissioning were considered in this screening assessment;
- The site synopses and conservation objectives, as per the appropriate datasets, were consulted and reviewed when preparing this report (24th of January 2024). Figure 4 details the location of the proposed development in relation to all European sites within 15km in the Republic of Ireland;

Where potential pathways for Significant Effect are identified, the site is included within the Likely Zone of Impact, and further assessment is required.

[45] NPWS Protected Site Synopses and maps available on http://www.npws.ie/en/ProtectedSites/;
[46] EPA maps available on EPA Maps
[47] Scottish Natural Heritage (SNH) (July 2013) Assessing Connectivity with Special Protection Areas (SPA);



Legend:

- Site Boundary
- 15km Zone of Influence
- SAC- Special Area of Conservation
- SPA- Special Protected Area

Project Title: AEMP-2000273 Dublin Road, Ballisodare, Co. Sligo	
Drawing Title: Natura 2000 Sites within 15km Zone of Influence	
Drawn By: CN	Checked By: FM
Project No: 2000273	Drawing No: Figure 4
Scale: 1/150000	Date: 15th March 2024

AVRIO
Head Office-Enniskillen
Unit 5, Abbey House Business Centre,
11 Head Street, Enniskillen,
Co. Fermanagh, BT74 7JL
Website: www.avrio-env.com
Email: info@avrio-env.com
Phone: 028 6633 5608

Table 3-1: Identification of designated sites within 15km Zone of Influence of the development site

European Sites and distance from subject development	Qualify Interests/Special Conservation Interests for which the European site has been designated (Sourced from NPWS online Conservation Objectives, www.npws.ie on the 24/01/2024)	Conservation Objectives	Likely Zone of Impact Determination
Special Areas of Conservation (SAC)			
Unshin River SAC [001898] Distance: 1.5m	➢ 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]	Detailed conservation objectives for this site (Version 1, December 2021) were reviewed as part of the assessment and are available at www.npws.ie	This development is located 1.5m to the north of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SAC via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which is part of the Unshin River SAC. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor. These features are potential pollutant pathways from the development site to Unshin River SAC. Indirect impacts are anticipated. **This SAC is within the likely zone of impact, and further assessment is required.**
Ballysadare Bay SAC [000622] Distance: 515m	➢ Estuaries [1130] ➢ Mudflats and sandflats not covered by seawater at low tide [1140] ➢ Embryonic shifting dunes [2110] ➢ Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120] ➢ Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] ➢ Humid dune slacks [2190] ➢ *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014] ➢ *Phoca vitulina* (Harbour Seal) [1365]	Detailed conservation objectives for this site (Version 1, November 2013) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 515m to the southeast of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SAC via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, which is part of this SAC. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor.

			These features are potential pollutant pathways from the development site to Ballysadare Bay SAC. Indirect impacts are anticipated. **This SAC is within the likely zone of impact, and further assessment is required.**
Union Wood SAC [000638] Distance: 1.1km	➢ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0]	Detailed conservation objectives for this site (Version 1, January 2021) were reviewed as part of the assessment and are available at www.npws.ie	This development is located 1.1km to the west of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and this SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**
Lough Gill SAC [001976] Distance: 5.1km	➢ Natural eutrophic lakes with *Magnopotamion* or *Hydrocharition* - type vegetation [3150] ➢ Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] ➢ Old sessile oak woods with *Ilex* and *Blechnum* in the British Isles [91A0] ➢ Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*) [91E0] ➢ *Austropotamobius pallipes* (White-clawed Crayfish) [1092] ➢ *Petromyzon marinus* (Sea Lamprey) [1095] ➢ *Lampetra planeri* (Brook Lamprey) [1096] ➢ *Lampetra fluviatilis* (River Lamprey) [1099] ➢ *Salmo salar* (Salmon) [1106] ➢ *Lutra lutra* (Otter) [1355]	Detailed conservation objectives for this site (Version 1, December 2021) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 5.1km to the southwest of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and this SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627] Distance: 7.1km	➢ Estuaries [1130] ➢ Mudflats and sandflats not covered by seawater at low tide [1140] ➢ Embryonic shifting dunes [2110] ➢ Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]	Detailed conservation objectives for this site (Version 1, September 2013) were reviewed as part of the assessment and are	This development site is located 7.1 km to the south of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SAC via runoff into the Ballysadare River

	➢ Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] ➢ *Juniperus communis* formations on heaths or calcareous grasslands [5130] ➢ Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] ➢ Petrifying springs with tufa formation (Cratoneurion) [7220] ➢ *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014] ➢ *Petromyzon marinus* (Sea Lamprey) [1095] ➢ *Lampetra fluviatilis* (River Lamprey) [1099] ➢ *Phoca vitulina* (Harbour Seal) [1365]	available at www.npws.ie	(IE_WE_35B050100), adjacent to the southern site boundary which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor. These features are potential pollutant pathways from the development site to Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC. Indirect impacts are anticipated. **This SAC is within the likely zone of impact, and further assessment is required.**
Templehouse and Cloonacleigha Loughs SAC [000636] Distance: 11km	➢ Hard oligo-mesotrophic waters with benthic vegetation of *Chara spp*. [3140] ➢ Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation [3260]	Detailed conservation objectives for this site (Version 1, October 2021) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 11 km to the north of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and the SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**
Ox Mountains Bogs SAC [002006] Distance: 13.75km	➢ Oligotrophic waters containing very few minerals of sandy plains (*Littorelletalia uniflorae*) [3110] ➢ Natural dystrophic lakes and ponds [3160] ➢ Northern Atlantic wet heaths with *Erica tetralix* [4010] ➢ European dry heaths [4030] ➢ Blanket bogs (* if active bog) [7130] ➢ Transition mires and quaking bogs [7140] ➢ Depressions on peat substrates of the *Rhynchosporion* [7150] ➢ *Vertigo geyeri* (Geyer's Whorl Snail) [1013] ➢ *Saxifraga hirculus* (Marsh Saxifrage) [1528]	Detailed conservation objectives for this site (Version 1, August 2016) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 13.75km to the northeast of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and the SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**

Knockalongy and Knockachree Cliffs SAC [001669] Distance: 14.4km	➢ *Trichomanes speciosum* (Killarney Fern) [1421]	Detailed conservation objectives for this site (Version 1, December 2020) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 14.4km to the east of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and the SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**
Benbulben, Gleniff and Glenade Complex SAC [000623] Distance: 14.6km	➢ Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion vegetation* [3260] ➢ Northern Atlantic wet heaths with Erica tetralix [4010] ➢ European dry heaths [4030] ➢ Alpine and Boreal heaths [4060] ➢ *Juniperus communis* formations on heaths or calcareous grasslands [5130] ➢ Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210] ➢ Species-rich Nardus grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe) [6230] ➢ Hydrophilous tall herb fringe communities of plains and of the montane to alpine levels [6430] ➢ Blanket bogs (* if active bog) [7130] ➢ Transition mires and quaking bogs [7140] ➢ Petrifying springs with tufa formation (Cratoneurion) [7220] ➢ Alkaline fens [7230] ➢ Siliceous scree of the montane to snow levels (*Androsacetalia alpinae* and *Galeopsietalia ladani*) [8110] ➢ Calcareous and calcshist screes of the montane to alpine levels (*Thlaspietea rotundifolii*) [8120]	Detailed conservation objectives for this site (Version 1, December 2021) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 14.6km to the south of this SAC. There is no spatial overlap or no direct land take from this SAC. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and the SAC, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SAC is not within the Likely Zone of Impact, and no further assessment is required.**

	➢ Calcareous rocky slopes with chasmophytic vegetation [8210] ➢ *Vertigo geyeri* (Geyer's Whorl Snail) [1013] ➢ *Lutra lutra* (Otter) [1355]		
Special Protected Areas (SPA)			
Ballysadare Bay SPA [004129] Distance: 695m	➢ Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] ➢ Grey Plover (*Pluvialis squatarola*) [A141] ➢ Dunlin (*Calidris alpina*) [A149] ➢ Bar-tailed Godwit (*Limosa lapponica*) [A157] ➢ Redshank (*Tringa totanus*) [A162] ➢ Wetland and Waterbirds [A999]	Detailed conservation objectives for this site (Version 1, October 2013) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 695m to the southeast of this SPA. There is no spatial overlap or no direct land take from this SPA. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SAC via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay SPA. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor. These features are potential pollutant pathway from the development site to Ballysadare Bay SPA. Indirect impacts are anticipated. **This SPA is within the likely zone of impact, and further assessment is required.**
Cummeen Strand SPA [004035] Distance: 7.4km	➢ Light-bellied Brent Goose (*Branta bernicla hrota*) [A046] ➢ Oystercatcher (*Haematopus ostralegus*) [A130] ➢ Redshank (*Tringa totanus*) [A162] ➢ Wetland and Waterbirds [A999]	Detailed conservation objectives for this site (Version 1, September 2013) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 7.4km to the south of this SPA. There is no spatial overlap or no direct land take from this SPA. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SAC via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor. These features are potential pollutant pathways from the development site to Cummeen Strand SPA. Indirect impacts are anticipated.

			This SPA is within the likely zone of impact, and further assessment is required.
Drumcliff Bay SPA [004013] Distance: 11.6km	➢ Sanderling (*Calidris alba*) [A144] ➢ Bar-tailed Godwit (*Limosa lapponica*) [A157] ➢ Wetland and Waterbirds [A999]	Detailed conservation objectives for this site (Version 1, September 2013) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 11.6km to the south of this SPA. There is no spatial overlap or no direct land take from this SPA. No direct impacts are anticipated. The proposed development site is hydrologically connected to this SPA via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Additionally, the percolation of water through a Karstified Locally Important Aquifer with a high groundwater vulnerability status provides additional pathways to this sensitive receptor. These features are potential pollutant pathways from the development site to Drumcliff Bay SPA. Indirect impacts are anticipated. **This SPA is within the likely zone of impact, and further assessment is required.**
Sligo/Leitrim Upland SPA [004187] Distance: 12.8km	➢ Peregrine (*Falco peregrinus*) [A103] ➢ Chough (*Pyrrhocorax pyrrhocorax*) [A346]	Detailed conservation objectives for this site (Version 1, October 2022) were reviewed as part of the assessment and are available at www.npws.ie	This development site is located 12.8km to the south of this SPA. There is no spatial overlap or no direct land take from this SPA. No direct impacts are anticipated. No hydrological or hydrogeological connection exists between the site of the proposed development and the SPA, therefore, there is no pathway for significant effects via direct or indirect impacts. **This SPA is not within the Likely Zone of Impact, and no further assessment is required.**

3.2 Identifying Impacted Qualifying Features from Designated Sites

The following designations have been identified as having a hydrogeological connection to the application site: Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand SPA, Ballysadare Bay SPA, Drumcliff Bay SPA. No direct impacts are anticipated on these designations, as proposed works will be undertaken outwith their boundaries. Indirect impacts are expected on these designations. Tables 3-2 – Table 3-7 identify the qualifying features of these designations that may be impacted by the proposed works.

Table 3-2: Identification of Impacted Qualifying Features of Unshin River SAC

Qualifying Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objectives	Attribute	Target	Potential for Effects
[3260] Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	1.5m south of the application site	This qualifying interest covers upland, flashy, oligotrophic, bryophyte and algal-dominated rivers, to tidal reaches dominated by higher plants. The Ballysadare River, part of the Unshin River SAC, to the south of the site, is considered in this qualifying interest. Surface runoff or percolation of water through the aquifer on-site will discharge water into this river. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	Threats to this qualifying interest in Ireland comprise damage through hydrological and morphological change, such as arterial drainage and channelisation, which can result in the accumulation of larger amounts of fine sediment; eutrophication and water potential is also of continued rising concern, with agriculture and municipal/industrial discharges being the most significant contributors to this.	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	Habitat area	Area stable or increasing, subject to natural processes	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, may be subject to water runoff and discharge. This river is considered as part of the qualifying interest. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Habitat distribution	No decline, subject to natural processes	
						Hydrological regime: river flow	Maintain appropriate hydrological regimes	
						Hydrological regime: groundwater discharge	Maintain appropriate hydrological regime	
						Substratum composition: particle size range	Maintain appropriate substratum particle size range, quantity, and quality, subject to natural processes	
						Water quality	Maintain/restore appropriate water quality to support the natural structure and functioning of the habitat	
						Typical species	Typical species of the relevant habitat sub-type should be present and in good condition	
						Floodplain connectivity: area	Maintain/restore the area of active floodplain at and upstream of the habitat	
						Riparian habitat: area and condition	Maintain the area and condition of fringing habitats necessary to support the habitat and its sub-types	
[6210]	1.5m south of the	This qualifying interest comprises	According to the NPWS 2019 Status	Pressures to this qualifying interest include	To restore the favourable	Habitat distribution	No decline, subject to natural processes	**No potential for Effects**

Semi–natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (*important orchid sites)	application site	species-rich plant communities on shallow, well-drained calcareous substrates. It is considered a priority habitat if it is an important orchid site. This habitat includes a mixture of grasses and herbs, with calcicole species typically frequent. It usually occurs on obvious geological features such as eskers, outcropping limestone rock and in association with limestone pavement. This qualifying interest is not adjacent to the river. There are no potential impacts anticipated on this qualifying interest.	of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "bad and stable".	overgrazing, erosion, and small areas of juniper scrub removal (although these are not considered to be significant)	conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) in Unshin River SAC	Habitat Area	Area stable or increasing, subject to natural processes	Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Vegetation composition: positive indicator species	At least 7 positive indicator species present in monitoring stop or, if 5–6 present in stop, additional species within 20m of stop; this includes at least two 'high quality' positive indicator species present in stop or within 20m of stop	
						Vegetation composition: negative indicator species	Negative indicator species collectively not more than 20% cover, with cover of an individual species not more than 10%	
						Vegetation composition: nonnative species	Cover of non-native species not more than 1%	
						Vegetation composition: woody species and bracken	Cover of woody species (except certain listed species) and bracken (*Pteridium aquilinum*) not more than 5%	
						Vegetation structure: broadleaf herb:grass ratio	Broadleaf herb component of vegetation between 40% and 90%	
						Vegetation structure: sward height	At least 30% of sward between 5cm and 40cm tall	
						Vegetation structure: litter	Litter cover not more than 25%	
						Physical structure: bare soil	Not more than 10% bare soil	
						Physical structure: grazing or disturbance	Area of the habitat showing signs of serious grazing or disturbance less than 20m²	
[6410] *Molinia* meadows on	1.5m south of the application site	This qualifying interest is represented by both fen and grassland communities on	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the	The main threats and pressures include Invasive alien species, Intensive grazing or overgrazing by livestock, forest and	To restore the favourable conservation condition of Molinia meadows	Habitat Distribution	No Decline	**No potential for Effects** Given the lack of pathways, type and
						Habitat area	Area stable or increasing, subject to natural processes	

calcareous, peaty, or clayey-silt-laden soils (*Molinion caeruleae*)		nutrient-poor soils. It occurs in lowland plains on neutral to calcareous gleys, sometimes with a marl layer beneath the surface, or on peaty soils in both lowland and upland situations. This qualifying interest is not adjacent to the river. There are no potential impacts anticipated on this qualifying interest.	overall status of this qualifying interest is "bad and deteriorating".	plantation management and air pollution and air-borne pollutants. All these threats and pressures hinder the growth of this qualifying interest.	on calcareous, peaty, or clayey-silt-laden soils (*Molinion caeruleae*) in Unshin River SAC	Woodland Size	Area stable or increasing. Where topographically possible, "large" woods at least 25ha in size and "small" woods at least 3ha in size	scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Woodland Structure: Cover and height	Total canopy cover at least 30%; median canopy height at least 11m; native shrub layer cover 10-75%; native herb/dwarf shrub layer cover at least 20% and height at least 20 cm; bryophyte cover at least 4%	
						Woodland structure: community diversity and extent	Maintain diversity and extent of community types	
						Woodland Structure: Natural regeneration	Seedlings, saplings and pole age-classes of target species for 91A0 woodlands and other native tree species occur in adequate proportions to ensure survival of woodland canopy	
						Woodland Structure: Dead wood	At least 19 stems/ha of dead wood of at least 20cm diameter	
						Woodland Structure: Veteran trees	No decline	
						Woodland Structure: Indicators of local distinctiveness	No decline	
						Woodland structure: indicators of overgrazing	All four indicators of overgrazing absent	
						Vegetation Composition: Native tree cover	No decline. Native tree cover not less than 90% of canopy; target species cover at least 50% of canopy	
						Vegetation Composition: Typical species	At least 1 target species for 91A0 woodlands present; at least 6 positive indicator species for [91A0] woodlands present	

						Vegetation composition: negative indicator species	Negative indicator species cover not greater than 10%; regeneration of negative indicator species absent	
						Habitat area	Area stable or increasing, subject to natural processes.	
[91E0] Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)*	1.5m south of the application site	This qualifying interest is most common in Ireland in the form of Riparian forests of Ash and Alder of temperate and Boreal Europe lowland and hill watercourses. They are periodically inundated by the annual rise of river levels but otherwise, have well-drained and aerated soils during low water. Areas of this habitat are adjacent to the watercourse and may be subject to a potential pathway in high-water. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "bad and deteriorating".	The main threats and pressures include Invasive alien species, in particular sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), Indian balsam (*Impatiens glanduilifera*), and currant species (*Ribes nigrum* and *R. rubrum*). The QI is also subject to small area losses due to clear-felling.	To restore the favourable conservation condition of Alluvial forests with Alnus glutinosa and Fraxinus excelsior (*Alno-Padion, Alnion incanae, Salicion albae*) * in Unshin River SAC	Habitat distribution	No decline, subject to natural processes	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. During high water, and the close proximity of this habitat to the river, there is potential that this QI will be impacted. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Habitat Area	Area stable or increasing, subject to natural processes	
						Woodland size	Area stable or increasing. Where topographically possible, "large" woods at least 25ha in size and "small" woods at least 3ha in size	
						Woodland structure: cover and height	Total canopy cover at least 30%; median canopy height at least 7m; native shrub layer cover 10-75%; native herb/dwarf shrub layer cover at least 20% and height at least 20cm; bryophyte cover at least 4%	
						Woodland structure: community diversity and extent	Maintain diversity and extent of community types	
						Woodland structure: natural regeneration	Seedlings, saplings, and pole age-classes of target species for [91E0] woodlands and other native tree species occur in adequate proportions to ensure survival of woodland canopy	
						Hydrological regime: flooding depth/height of water table	Appropriate hydrological regime necessary for maintenance of alluvial vegetation	
						Woodland structure: dead wood	At least 19 stems/ha of dead wood of at least 20cm diameter	
						Woodland structure: veteran trees	No decline	

						Woodland structure: indicators of local distinctiveness	No decline in distribution and, in the case of red listed and other rare or localised species, population size	
						Woodland structure: indicators of overgrazing	All five indicators of overgrazing absent	
						Vegetation composition: native tree cover	No decline. Native tree cover at least 90% of canopy; target species cover at least 50% of canopy	
						Vegetation composition: typical species	At least 1 target species for 91E0* woodlands present; at least 6 positive indicator species for 91E0* woodlands present	
						Vegetation composition: negative indicator species	Negative indicator species cover not greater than 10%; regeneration of negative indicator species absent	
						Vegetation composition: problematic native species	Cover of common nettle (*Urtica dioica*) less than 75%	
[1106] Atlantic Salmon (*Salmo salar*)	1.5m south of the application site	The Unshin River SAC is known to be a key hotspot for this qualifying interest; the species can utilise the habitat for foraging/feeding behaviours, and potentially for migration during spawning stage of the lifecycle. Surface runoff or percolation of water through the aquifer on-site will discharge water into the Ballysadare River, part of this SAC. This will	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and stable".	Impacts on this species include pollution and pesticides of watercourses that otters utilise, conflicts with fishermen i.e., getting tangled in fishing gear, and infrastructure developments e.g., roads, housing	To maintain the favourable conservation condition of Atlantic Salmon (*Salmo salar*) in Unshin River SAC	Distribution: extent of anadromy	100% of river channels down to second order accessible from estuary	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The qualifying interest utilises this river during its lifecycle. There is a potential pollution pathway between this
						Adult spawning fish	Conservation limit (CL) for each system consistently exceeded	
						Distribution: extent of anadromy	100% of river channels down to second order accessible from estuary	
						Salmon fry abundance	Maintain or exceed 0+ fry mean catchment-wide abundance threshold value. Currently set at 17 salmon fry/5 minutes sampling	
						Out-migrating smolt abundance	No significant decline	
						Number and distribution of redds	No decline in number and distribution of spawning redds due to anthropogenic causes	

		negatively impact the qualifying interests, and the habitat of which the species utilises. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.				Water quality	At least Q4 at all sites sampled by EPA	qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
[1355] Otter (*Lutra lutra*)	1.5m south of the application site	The Unshin River SAC is known to be a hotspot for this qualifying interest species; the species can utilise the habitat for foraging/feeding behaviours and can use habitats adjacent to the river for holt/natal creation. Surface runoff or percolation of water through the aquifer on-site will discharge water into the Ballysadare River, part of this SAC. This will negatively impact the qualifying interest, and the habitat of which it utilises. Therefore, there is a potential pollution pathway between this qualifying interest	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "favourable and stable".	Impacts on otters include pollution and pesticides of watercourses that otters utilise, conflicts with fishermen i.e., getting tangled in fishing gear, and infrastructure developments e.g., roads, housing	To maintain the favourable conservation condition of Otter (*Lutra lutra*) in Unshin River SAC	Distribution	No significant decline	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. Otter utilises the Ballysadare River for foraging, as well as habitats adjacent to it for holt/natal den creation. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest
						Extent of terrestrial habitat	No significant decline. Area mapped and calculated as 193.91ha along river banks/ lake shoreline/around ponds	
						Extent of freshwater (river) habitat	No significant decline. Length mapped and calculated as 80.38km	
						Extent of freshwater (lake) habitat	No significant decline. Area mapped and calculated as 353.39ha	
						Couching sites and holts	No significant decline	
						Fish biomass available	No significant decline	

		and the application site.						as a result of proposed works.

Table 3-3: Identification of Impacted Qualifying Features of Ballysadare Bay SAC

Qualifying Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objectives	Attribute	Target	Potential for Effects
[1130] Estuaries	515m northwest of the application site	This qualifying interest is comprised of costal inlets with a significant freshwater influence. The Ballysadare River which is adjacent to the south of the application site, flows directly into this qualifying interest. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and declining".	The main threats to this qualifying interest come from various sources of pollution, including domestic wastewater, agriculture, and marine aquaculture, alien invasive species, such as the Pacific oyster (*Magallana gigas*).	To maintain the favourable conservation condition of Estuaries in Ballysadare Bay SAC	Habitat Area	The permanent habitat area is stable or increasing, subject to natural processes	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The Ballysadare River flows directly into this SAC, and therefore this qualifying interest. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Community extent	Maintain the extent of the *Zostera*-dominated community, subject to natural processes	
						Community structure: *Zostera* density	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes	
						Community distribution	Conserve the following community types in a natural condition: Intertidal sand with *Angulus tenuis* community complex; Muddy sand to sand with *Hediste diversicolor*, *Corophium volutator* and *Peringia ulvae* community complex; Fine sand with polychaetes community complex; Sand with bivalves, nematodes and crustaceans community complex; Intertidal reef community complex; Subtidal reef community complex.	
[1140]	515m northwest	This qualifying interest is comprised of the	According to the NPWS 2019	The main threats and pressures include	To maintain the favourable	Habitat area	The permanent habitat area is stable or increasing, subject to natural processes.	**There are potential effects anticipated**

Mudflats and sandflats not covered by seawater at low tide	of the application site	intertidal section of the coastline where sands and muds dominate. The Ballysadare River adjacent to the south of the application site flows directly into this qualifying interest. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	anthropogenic impacts include land claims for development, recreational activities, dredging, pollution/nutrient sedimentation, and provision of recreation facilities.	conservation condition of Mudflats and sandflats not covered by seawater at low tide in Ballysadare Bay SAC	Community extent	Maintain the extent of the *Zostera*-dominated community, subject to natural processes.	**on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The Ballysadare River flows directly into this SAC, and therefore this qualifying interest. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Community structure: *Zostera* density	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes	
						Community distribution	Conserve the following community types in a natural condition: Intertidal sand with *Angulus tenuis* community complex; Muddy sand to sand with *Hediste diversicolor*, *Corophium volutator* and *Peringia ulvae* community complex	
[2110] Embryonic Shifting Dunes	515m northwest of the application site	This qualifying interest consists of low sand mounds, generally less than a metre high, which occur between the high tide mark and the partially stabilised marram (white) dunes. Due to their presence at the high tide mark, it cannot be ruled out that polluted water from the application site does not runoff or percolate into the Ballysadare River adjacent to the south of the application site and	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and stable".	The main threats and pressures include recreational activities e.g., watersports, and coastal defences, these can interfere with the sediment dynamics of the qualifying interest.	To maintain the favourable conservation condition of Embryonic shifting dunes in Ballysadare Bay SAC	Habitat area	Area stable or increasing, subject to natural processes, including erosion and succession. For sub-site mapped: Strandhill - 1.08ha.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The Ballysadare River flows directly into this SAC. At high
						Habitat distribution	No decline or change in habitat distribution, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	

		reach this QI when at high tide. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.				Vegetation composition: plant health of foredune grasses	More than 95% of sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e., green plant parts above ground and flowering heads present)	tide, there is potential that this qualifying interest will be impacted. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Vegetation composition: typical species and subcommunities	Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*)	
						Vegetation composition: negative indicator species	Negative indicator species (including non-native species) to represent less than 5% cover	
[2120] Shifting Dunes along the shoreline with *Ammophila arenaria* (White Dunes)	515m northwest of the application site	This qualifying interest consists of dunes which are partly stabilised, and areas dominated by marram. They tend to form further inland than embryonic shifting dunes. Therefore, there is no pathway between the application site, and this qualifying interest.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and stable".	The main threats and pressures include changes in water bodies conditions, fishing and harvesting aquatic resources, pollution to surface waters, shipping lanes and ports, urbanisation and human habitation pollution to marine waters and other human disturbances.	To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Ballysadare Bay SAC	Habitat area	Area stable or increasing, subject to natural processes including erosion and succession.	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	
						Vegetation composition: plant health of dune grasses	95% of marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*) should be healthy	
						Vegetation composition: typical species and subcommunities	Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and/or lymegrass (*Leymus arenarius*)	
						Vegetation composition: negative indicator specie	Negative indicator species (including non-natives) to represent less than 5% cover	

						Habitat area	Area increasing, subject to natural processes including erosion and succession	
[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)	515m northwest of the application site	This qualifying interest is relatively sheltered with sand mobility greatly reduced compared to other dune habitats and has developed a closed carpet of vegetation. Due to the sheltered nature of these habitats, there is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "bad and deteriorating".	The threats to the habitat come from over-stabilisation (through techniques to prevent sand drift), a lack of appropriate grazing levels, growth of native and non-native (introduced) scrub, afforestation, and alien species. The most significant concern across the range of sites is the impact of atmospheric nutrient deposition.	To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Ballysadare Bay SAC.	Habitat Area	Area stable or increasing, subject to natural processes including erosion and succession. For sub-site mapped: Strandhill - 56.07ha.	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	
						Vegetation structure: bare ground	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	
						Vegetation structure: sward height	Maintain structural variation within sward	
						Vegetation composition: typical species and subcommunities	Maintain range of subcommunities with typical species listed in Ryle et al. (2009)	
						Vegetation composition: negative indicator species (including *Hippophae rhamnoides*)	Negative indicator species (including non-natives) to represent less than 5% cover	
						Vegetation composition: scrub/trees	No more than 5% cover or under control	
[2190]	515m northwest	This qualifying interest is topographically the	According to the NPWS 2019	The main threats and pressures include	To restore the favourable	Habitat Area	Area stable or increasing, subject to natural processes including erosion and	**There are potential effects anticipated**

Humid Dune Slacks	of the application site	lowest-lying region within a dune system. Dune slacks can remain flooded for 2-6 months per year with fluctuations depending on precipitation and evapotranspiration. Therefore, when flooded, there is a potential pollutant pathway between this qualifying feature and the application site.	Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	Intensive grazing or overgrazing by livestock, Disruption to the natural sediment regime, Recreational activities, and Nitrogen Deposition.	conservation condition of Humid Dune Slacks in Ballysadare Bay SAC		succession. For sub-site mapped: Strandhill - 1.83ha.	**on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The Ballysadare River flows directly into this SAC. When flooded, there is potential that this qualifying interest will be impacted. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Habitat distribution	No decline or change in habitat distribution, subject to natural processes.	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Physical structure: hydrological and flooding regime	Maintain natural hydrological regime	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	
						Vegetation structure: bare ground	Bare ground should not exceed 5% of dune slack habitat, with the exception of pioneer slacks which can have up to 20% bare ground	
						Vegetation structure: vegetation height	Maintain structural variation within sward	
						Vegetation composition: typical species and sub-communities	Maintain range of sub-communities with typical species listed in Delaney et al. (2013)	
						Vegetation composition: cover of *Salix repens*	Maintain less than 40% cover of creeping willow (*Salix repens*)	
						Vegetation composition: negative indicator species	Negative indicator species (including non-natives) to represent less than 5% cover	

						Vegetation composition: scrub/trees	No more than 5% cover or under control	
[1014] Narrow-mouthed Whorl Snail (*Vertigo angustior*)	515m northwest of the application site	This qualifying interest favour damp or wet habitats, where they live mostly in moss, leaves and decaying vegetation, and feed on bacterial films and decaying vegetation. *V. angustior* occurs in a variety of habitats including dune and coastal grassland, fen, marsh, saltmarsh, and floodplains. Due to the sheltered nature of these habitats, there is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	The main threats and pressures include weather changes including droughts and changes in waterbody conditions.	To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Ballysadare Bay SAC	Distribution: occupied sites	No decline. There is one known location for this species in this SAC (which overlaps two 1km squares).	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Presence on transect	Adult or sub-adult snails are present in all three of the habitat zones on the transect (minimum four samples)	
						Presence	Adult or sub-adult snails are present in at least 6 other places at the site with a wide geographical spread (minimum of 8 sites or 75% of sites sampled)	
						Transect habitat quality	At least 75m of habitat along the transect is classed as optimal and 150m of habitat along the transect is classed as suboptimal or optimal	
						Transect optimal wetness	Soils, at time of sampling, are damp (optimal wetness) and covered with a layer of humid thatch for more than 130m along the transect	
						Habitat extent	At least 45ha of the site in at least optimal/sub-optimal condition. Optimal habitat is defined as fixed dune, species-rich grassland dominated by red fescue (*Festuca rubra*) and marram (*Ammophila arenaria*), with sparse oxeye daisy (*Leucanthemum vulgare*), dandelion (*Taraxacum sp.*), ribwort plantain (*Plantago lanceolata*) and other low growing herbs. Vegetation height 20-50cm. Habitat growing on damp, friable soil covered with a layer of humid, open structured thatch. Sub-optimal habitat is defined as above but either vegetation height is less than 10cm or above 50cm; or the soil is dry and sandy; or the thatch is wetter with a denser structure	
[1365]	515m northwest of the	This qualifying interest occur in estuarine, coastal, and fully marine	According to the NPWS 2019 Status of EU	The main threats to Harbour Seal include hunting, environmental	To maintain the favourable conservation	Access to suitable habitat	Species range within the site should not be restricted by artificial barriers to site use.	**There are potential effects anticipated**

Harbour Seal (*Phoca vitulina*)	application site	areas and also occupy regular haul-out sites about which animals breed, moult, rest and engage in social activity. Such sites tend to be found in enclosed sheltered bays, although the species may also occur on offshore islands and rocky skerries. The Ballysadare River adjacent to the south of the application site flows directly into Ballysadare Bay SAC in which Harbour Seal is a qualifying interest. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "favourable and stable".	contaminants, infectious disease, human disturbance, and reduction of fish stocks.	condition of Harbour Seal in Ballysadare Bay SAC.	Breeding behaviour	Conserve the breeding sites in a natural condition	**on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, via surface runoff or percolation. The qualifying interest utilises this river during its for foraging and various grounds for stages of its lifecycle. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Moulting behaviour	Conserve the moult haul-out sites in a natural condition	
						Resting behaviour	Conserve the resting haul-out sites in a natural condition	
						Disturbance	Human activities should occur at levels that do not adversely affect the Harbour seal population at the site	

Table 3-4: Identification of Impacted Qualifying Features of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

Qualifying Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objectives	Attribute	Target	Potential for Effects
[1130] Estuaries	7.1km north of the application site	This qualifying interest is comprised of costal inlets with a significant freshwater influence. The Ballysadare River adjacent to the south of	According to the NPWS 2019 Status of EU Protected Habitats & Species in	The main threats to this qualifying interest come from various sources of pollution, including domestic wastewater, agriculture, and marine	To maintain the favourable conservation condition of Estuaries in Cummeen	Habitat Area	The permanent habitat area is stable or in creasing, subject to natural processes	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare
						Community extent	Maintain the extent of the *Zostera*-dominated community and the *Mytilidae*-dominated community complex, subject to natural processes	

		the application site flows into Ballysadare Bay, and further the Atlantic Ocean, which is connected to this SAC and, due to its location, this QI. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	Ireland, the overall status of this qualifying interest is "inadequate and declining".	aquaculture, alien invasive species, such as the Pacific oyster (*Magallana gigas*).	Strand/Drumcliff Bay (Sligo Bay) SAC	Community structure: *Zostera* density	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes	River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated qualifying interest. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Community structure: *Mytilus edulis* density	Conserve the high quality of the *Mytilidae*-dominated community complex, subject to natural processes	
						Community distribution	Conserve the following community types in a natural condition: Intertidal fine sand with *Peringia ulvae* and *Pygospio elegans* community complex; Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community complex; Fine sand with *Angulus spp*. and *Nephtys spp*. community complex; Sand to mixed sediment with amphipods community; Intertidal reef community	
[1140] Mudflats and sandflats not covered by seawater at low tide	7.1km north of the application site	This qualifying interest is comprised of the intertidal section of the coastline where sands and muds dominate. The Ballysadare River adjacent to the south of the application site flows into Ballysadare Bay, and further the Atlantic Ocean, which is connected to this SAC and, due to its intertidal location, this QI. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	The main threats and pressures include anthropogenic impacts include land claims for development, recreational activities, dredging, pollution/nutrient sedimentation, and provision of recreation facilities.	To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Habitat area	The permanent habitat area is stable or increasing, subject to natural processes.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated qualifying interest. There is a potential pollution pathway between this qualifying interest
						Community extent	Maintain the extent of the *Zostera*-dominated community and the *Mytilidae*-dominated community complex, subject to natural processes.	
						Community structure: *Zostera* density	Conserve the high quality of the *Zostera*-dominated community, subject to natural processes	
						Community structure: *Mytilus edulis* density	Conserve the high quality of the *Mytilidae*-dominated community complex, subject to natural processes	
						Community distribution	Conserve the following community types in a natural condition: Intertidal fine sand with *Peringia ulvae* and *Pygospio elegans* community complex; Estuarine mixed sediment to sandy mud with *Hediste diversicolor* and oligochaetes community	

							complex; Fine sand with crustaceans and *Scoloplos (Scololepis) squamata* community complex; Fine sand with *Angulus spp.* and *Nephtys spp.* community complex.	and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
[2110] Embryonic Shifting Dunes	7.1km north of the application site	This qualifying interest consists of low sand mounds, generally less than a metre high, which occur between the high tide mark and the partially stabilised marram (white) dunes. Due to their presence at the high tide mark, it cannot be ruled out that polluted water from the application site does not runoff or percolate into the Ballysadare River adjacent to the south of the application site and reach this QI when at high-tide. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and stable".	The main threats and pressures include recreational activities e.g., water sports, and coastal defences, these can interfere with the sediment dynamics of the qualifying interest.	To maintain the favourable conservation condition of Embryonic shifting dunes in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Habitat area	Area stable or increasing, subject to natural processes including erosion and succession. For subsites mapped: Coney Island - 0.67ha, Rosses Point - 32.27ha, Strandhill - 0.18ha, Yellow Strand - 0.83ha.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated qualifying interest, when at the high tide mark. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
						Habitat distribution	No decline, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	
						Vegetation composition: plant health of foredune grasses	More than 95% of sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*) should be healthy (i.e. green plant parts above ground and flowering heads present)	
						Vegetation composition: typical species and subcommunities	Maintain the presence of species-poor communities with typical species: sand couch (*Elytrigia juncea*) and/or lyme-grass (*Leymus arenarius*)	
						Vegetation composition: negative indicator species	Negative indicator species (including non-native species) to represent less than 5% cover	
[2120]	7.1km north of the	This qualifying interest consists of dunes which are partly stabilised, and	According to the NPWS 2019 Status of EU	The main threats and pressures include changes in water bodies'	To restore the favourable conservation	Habitat area	Area increasing, subject to natural processes including erosion and succession. For sub-sites mapped: Coney	**No potential for Effects**

Shifting dunes along the shoreline with *Ammophila arenaria* (White Dunes)	application site	areas dominated by marram. They tend to form further inland than embryonic shifting dunes. Therefore, there is no pathway between the application site, and this qualifying interest.	Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and stable".	conditions, fishing and harvesting aquatic resources, pollution to surface waters, shipping lanes and ports, urbanization and human habitation pollution to marine waters and other human disturbances.	condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC		Island - 0.46ha, Rosses Point - 0.17ha, Strandhill - 0.10ha, Yellow Strand - 0.47ha.	Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	
						Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	
						Vegetation composition: plant health of dune grasses	95% of marram grass (*Ammophila arenaria*) and/or lyme-grass (*Leymus arenarius*) should be healthy	
						Vegetation composition: typical species and sub-communities	Maintain the presence of species-poor communities dominated by marram grass (*Ammophila arenaria*) and/or lyme grass (*Leymus arenarius*)	
						Vegetation composition: negative indicator species	Negative indicator species (including non-natives) to represent less than 5% cover	
[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)	7.1km north of the application site	This qualifying interest is relatively sheltered with sand mobility greatly reduced compared to other dune habitats and has developed a closed carpet of vegetation. Due to the sheltered nature of these habitats, there is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "bad and deteriorating".	The threats to the habitat come from over-stabilisation (through techniques to prevent sand drift), a lack of appropriate grazing levels, growth of native and non-native (introduced) scrub, afforestation, and alien species. The most significant concern across the range of sites is the impact of	To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Habitat Area	Area increasing, subject to natural processes including erosion and succession. For sub-sites mapped: Coney Island - 15.06ha; Rosses Point - 21.89ha; Strandhill - 40.14ha; Yellow Strand - 19.16ha.	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works
						Habitat distribution	No decline, or change in habitat distribution, subject to natural processes	
						Physical structure: functionality and sediment supply	Maintain the natural circulation of sediment and organic matter, without any physical obstructions	

				atmospheric nutrient deposition.		Vegetation structure: zonation	Maintain the range of coastal habitats including transitional zones, subject to natural processes including erosion and succession	at the application site.
						Vegetation structure: bare ground	Bare ground should not exceed 10% of fixed dune habitat, subject to natural processes	
						Vegetation structure: sward height	Maintain structural variation within sward	
						Vegetation composition: typical species and subcommunities	Maintain range of subcommunities with typical species listed in Ryle et al. (2009)	
						Vegetation composition: negative indicator species (including *Hippophae rhamnoides*)	Negative indicator species (including non-natives) to represent less than 5% cover	
						Vegetation composition: scrub/trees	No more than 5% cover or under control	
[5130] *Juniperus communis* formations on heaths or calcareous grasslands	7.1km north of the application site	This qualifying interest is defined as a discrete area supporting 50+ juniper plants where no plant is more than 20m from another. Formations are mostly associated with lowland dry calcareous and neutral grassland, and potentially on coastal dunes and at higher altitudes. There is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "favourable and stable".	Pressures to this qualifying interest include overgrazing, erosion, and small areas of juniper scrub removal (although these are not considered to be significant)	To restore the favourable conservation condition of *Juniperus communis* formations on heaths or calcareous grasslands in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Formation Area	Area stable or increasing, subject to natural process	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Habitat distribution	No decline	
						Juniper population size	At least 50 plants per population	
						Formation structure: cover and height	Well-developed structure with an open to closed cover of juniper up to or exceeding 0.45m in height with associated species	
						Formation structure: community	Appropriate community diversity and extent	

						diversity and extent		
						Formation structure: cone-bearing plants	At least 10% of plants bearing cones	
						Formation structure: seedling recruitment	At least 10% of juniper plants within the formation are seedlings	
						Formation structure: amount of each plant dead	Mean percentage of each juniper plant dead not more than 10%	
						Vegetation composition: typical species	A variety of typical native species with a minimum of 10 species present (excluding negative indicator species	
						Vegetation composition: negative indicator species	Negative indicator species, particularly non-native invasive species, absent or under control	
[7220] Petrifying springs with tufa formation (*Cratoneurion*)	7.1km north of the application site	This qualifying interest consists of lime-rich water sources where tufa is actively deposited and where characteristic species of bryophytes are dominant or abundant. Due to the location of this QI within the SAC, there is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	Main threats and pressures include Extensive grazing or under grazing by livestock, Agricultural activities generating diffuse pollution to surface or ground waters, Agricultural activities generating air pollution, Active abstractions from groundwater, surface water or mixed water for agriculture.	To maintain the favourable conservation condition of Petrifying springs with tufa formation (*Cratoneurion*) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Habitat Area	Area stable or increasing, subject to natural process	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this habitat, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Habitat distribution	No decline	
						Hydrological regime: height of water table; water flow	Maintain appropriate hydrological regimes	
						Water quality	Maintain oligotrophic and calcareous conditions	
						Vegetation composition: typical species	Maintain typical species	
						Distribution: occupied sites	No decline. There is one known location for this species in this SAC	

[1014] Narrow-mouthed Whorl Snail (*Vertigo angustior*)	7.1km north of the application site	This qualifying interest favour damp or wet habitats, where they live mostly in moss, leaves and decaying vegetation, and feed on bacterial films and decaying vegetation. *V. angustior* occurs in a variety of habitats including dune and coastal grassland, fen, marsh, saltmarsh, and floodplains. Due to the sheltered nature of these habitats, there is no pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "inadequate and deteriorating".	The main threats and pressures include weather changes including droughts and changes in waterbody conditions.	To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Distribution: Occupied Sites	No decline. There is one known location for this species in this SAC (which overlaps two 1km squares).	**No potential for Effects** Given the lack of pathways, type and scale of development, and characteristics of this species and the habitat of which it utilises, there will be no impact on this qualifying interest as a result of proposed works at the application site.
						Presence on transect	Adult or sub-adult snails are present in four of the grassland zones on the transect where optimal or sub-optimal habitat occurs	
						Presence	Adult or sub-adult snails are present in at least 6 other places at the site with a wide geographical spread (minimum of 8 sites or 75% of sites sampled)	
						Transect habitat quality	At least 75m of habitat along the transect is classed as optimal and 150m of habitat along the transect is classed as suboptimal or optimal	
						Transect optimal wetness	Soils, at time of sampling, are damp (optimal wetness) and covered with a layer of humid thatch for more than 130m along the transect	
						Habitat extent	12-15ha of the site optimal and a further 11-14ha sub-optimal. Optimal habitat is defined as fixed dune, species-rich grassland dominated by red fescue (*Festuca rubra*), with sparse marram grass (*Ammophila arenaria*), lady's bedstraw (*Galium verum*), eyebright (*Euphrasia sp.*), mouse-ear-hawkweed (*Pilosella officinarum*) and other low growing herbs. Vegetation height 10-30cm. Habitat growing on damp, friable soil covered with a layer of humid, open structured thatch. Sub-optimal habitat is defined as for optimal but either vegetation height is less than 10cm or between 30 and 50cm; or the vegetation contains mounds of moss or willow (*Salix spp.*) scrub; or the soil is dry and sandy; or the thatch is wetter with a denser structure	
[1095] Sea Lamprey (*Petromyzon marinus*)	7.1km north of the application site	The life cycle of this qualifying interest contains both a marine phase and a freshwater phase. Adult sea	According to the NPWS 2019 Status of EU Protected Habitats &	Main threats include obstacles blocking access to spawning grounds, poor water quality loss of substrate	To restore the favourable conservation condition of Sea Lamprey in	Distribution: extent of anadromy	No barriers for migratory life stages of lamprey moving from freshwater to marine habitats and vice versa	**There are potential effects anticipated on this qualifying interest.**

		lamprey living as external parasites on host fish or marine mammals at sea grow in length from 60 to 100cm before migrating in spring into freshwater to excavate redds or spawning nests in gravelled areas of large rivers. The Ballysadare River adjacent to the south of the application site flows into Ballysadare Bay, and further the Atlantic Ocean which is connected to this SAC and this QI; all these are habitats of which the species can utilise. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	Species in Ireland, the overall status of this qualifying interest is "bad and stable".	for spawning, overfishing, habitat modification resulting in uniform channel structure, juvenile mortality, eutrophication, bait digging and management of aquatic and bank vegetation for drainage purposes.	Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC			Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated site. The qualifying interest utilises this site during various stages of its lifecycle. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
[1099] River Lamprey (*Lampetra fluviatilis*)	7.1km north of the application site	This qualifying interest breeds in freshwater rivers and streams, migrating to marine habitats as a young adult, and returning to freshwater habitats to spawn, before they die. The Ballysadare River adjacent to the south of the application site flows into Ballysadare Bay, and further the Atlantic Ocean which is connected to this SAC and this QI; all these are habitats of which the	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "unknown".	Main threats include obstacles blocking access to spawning grounds, poor water quality loss of substrate for spawning, overfishing, habitat modification resulting in uniform channel structure, juvenile mortality, eutrophication, bait digging and management of aquatic and bank vegetation for drainage purposes.	To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Distribution: extent of anadromy	No barriers for migratory life stages of lamprey moving from freshwater to marine habitats and vice versa	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated site.

		species can utilise. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.						The qualifying interest utilises this site during various stages of its lifecycle. There is a potential pollution pathway between this qualifying interest and the application site, and indirect impacts are anticipated on this qualifying interest as a result of proposed works.
[1365] Harbour Seal (*Phoca vitulina*)	7.1km north of the application site	This qualifying interest occurs in estuarine, coastal, and fully marine areas and also occupy regular haul-out sites about which animals breed, moult, rest and engage in social activity. Such sites tend to be found in enclosed sheltered bays, although the species may also occur on offshore islands and rocky skerries. The Ballysadare River adjacent to the south of the application site flows into Ballysadare Bay, and further the Atlantic Ocean which is connected to this SAC and this QI; all these are habitats of which the species can utilise. Therefore, there is a potential pollution pathway between this qualifying interest and the application site.	According to the NPWS 2019 Status of EU Protected Habitats & Species in Ireland, the overall status of this qualifying interest is "favourable and stable".	The main threats to Harbour Seal include hunting, environmental contaminants, infectious disease, human disturbance, and reduction of fish stocks.	To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC	Access to suitable habitat	Species range within the site should not be restricted by artificial barriers to site use.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designated site. The qualifying interest utilises this site during its foraging and various grounds for stages of its lifecycle. There is a potential pollution pathway between this qualifying interest and the application site, and indirect
						Breeding behaviour	Conserve the breeding sites in a natural condition	
						Moulting behaviour	Conserve the moult haul-out sites in a natural condition	
						Resting behaviour	Conserve the resting haul-out sites in a natural condition	
						Disturbance	Human activities should occur at levels that do not adversely affect the Harbour seal population at the site	

								impacts are anticipated on this qualifying interest as a result of proposed works.

Table 3-5: Identification of Impacted Qualifying Features of Ballysadare SPA

Special Conservation Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objective	Potential for Effects
[A046] Light-bellied Brent Goose (*Branta bernicla hrota)*	Wintering populations of this species are widespread in a range of coastal habitats. The closest recorded population is within the Ballysadare Bay SPA (695m northwest of the application site)	The site is hydrologically and hydrogeologically linked to Ballysadare Bay SPA which is 695m northwest of the application site via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay SPA. Pollution of the watercourse adjacent to the southern site boundary will have adverse impacts on the water quality within the SPA, as well as habitats within the SPA. This may cause a loss of suitable habitat and/or food availability to the species listed as "special conservation interest".	Within Ballysadare Bay SPA, the current population trend for this species is considered favourable	Threats and Pressures directly associated with the species mentioned include significant changes in land management of adjoining habitat, aquaculture, bait digging – commercial or 'recreational' and shellfish gathering, beach sand and gravel extraction, boat disturbance (commercial and recreational) – injury from boats and a potential increase in pollution of water, lack of coastal protection schemes, drainage, dredging, enhanced bird competitions, fishing (commercial and recreational), loss of intertidal habitat, loss of open water habitat, alteration of habitat quality of inter-tidal habitat, alteration of habitat quality of open water habitat, loss of high tide roosts, threat of introduced species, introduction of power cables, disturbance caused by recreational activities, disturbance by research	- To maintain the favourable conservation condition of each listed species in Ballysadare Bay SPA - To maintain the favourable conservation conditions of the wetland habitat in Ballysadare Bay SPA as a resource for migratory waterbirds that utilise it.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, which is part of this SPA. Additionally, potential pollution of the watercourse on-site leading to a potential degradation in water quality may impact fish populations within the SPA, reducing the Bird species' food availability, and may increase competition between the species and anglers within the SPA. All species, for which the site is designated, will be
[A149] Dunlin (*Calidris alpina*)	Wintering populations of this species are widespread in a range of coastal habitats, especially on tidal mudflats and estuaries. The closest recorded population is within the Ballysadare Bay SPA (695m northwest of the application site)		Within Ballysadare Bay SPA, the current population trend for this species is considered intermediate unfavourable			
[A157] Bar-tailed Godwit (*Limosa lapponica*)	Wintering populations of this species are entirely coastal, although they are largely confined to estuaries. The closest recorded population is within the Ballysadare Bay SPA (695m northwest of the application site)		Within Ballysadare Bay SPA, the current population trend for this species is considered highly unfavourable			
[A141] Grey Plover (*Pluvialis squatarola*)	Wintering populations of this species are exclusively coastal, most often on large muddy estuaries. The closest recorded population is within the Ballysadare Bay SPA (695m northwest of the application site)		Within Ballysadare Bay SPA, the current population trend for this species is considered intermediate unfavourable			
[A162] Redshank (*Tringa totanus*)	Wintering populations of this species are associated with mudflats, large estuaries, and inlets. The closest recorded population is within the Ballysadare Bay SPA (695m northwest of the application site)		Within Ballysadare Bay SPA, the current population trend for this species is considered			

		There will be no direct pathways i.e., noise disturbance or land-take, due to the distance from the application site to the SPA	intermediate unfavourable	activities, alteration of system dynamics and wildfowl		exposed to the same potential effects.
[A999] Wetland and Waterbirds	The wetland habitat area was estimated as 2130ha using OSi data and relevant orthophotographs. At its closest point, Ballysadare Bay SPA is 695m to the west of the application site.		N/A			

Table 3-6: Identification of Impacted Qualifying Features of Cummeen Strand SPA

Special Conservation Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objective	Potential for Effects
[A046] Light-bellied Brent Goose (*Branta bernicla hrota*)	Wintering populations of this species are widespread in a range of coastal habitats. The closest recorded population is recorded at Ballysadare Bay (695m northwest of the application site). However, Cummeen Strand provides optimal habitat for the species, of which shows high site fidelity.	The site is hydrologically and hydrogeologically linked to Cummeen Strand SPA which is 7.4km north of the application site via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Pollution of the watercourse adjacent to the southern site boundary will have adverse impacts on the water quality	Within Cummeen Strand SPA, the current population trend for this species is considered favourable	Threats and Pressures directly associated with the species mentioned include significant changes in land management of adjoining habitat, aquaculture, bait digging – commercial or 'recreational' and shellfish gathering, beach sand and gravel extraction, boat disturbance (commercial and recreational) – injury from boats and a potential increase in pollution of water, lack of coastal protection schemes, drainage, dredging, enhanced bird competitions, fishing (commercial and recreational), loss of intertidal habitat, loss of open water habitat, alteration of habitat quality of inter-tidal habitat, alteration of habitat quality	- To maintain the favourable conservation condition of each listed species in Cummeen Strand SPA - To maintain the favourable conservation conditions of the wetland habitat in Cummeen Strand SPA as a resource for migratory waterbirds that utilise it.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Additionally, potential pollution of the watercourse on-site leading to a potential degradation in water quality may impact fish populations within the SPA,
[A130] Oystercatcher (*Haematopus ostralegus*)	Wintering populations of this species are widespread in a range of coastal habitats, particularly on open sandy coasts; they nest principally on shingle beaches, dunes, salt marshes, and rocky shores. The closest recorded population is recorded at Ballysadare Bay (695m northwest of the application site). However, Cummeen Strand provides optimal habitat for the species, of which shows high site fidelity.		Within Cummeen Strand SPA, the current population trend for this species is considered favourable			
[A162] Redshank (*Tringa totanus*)	Wintering populations of this species are widespread in a range of coastal habitats, favouring mudflats, large esturaies and inlets; they nest on the ground in grassy tussocks, in wet, marshy areas and occasionally heather. The closest recorded population is recorded at Ballysadare Bay (695m northwest of the application site). However, Cummeen Strand provides optimal habitat for the species, of which shows moderate site fidelity.		Within Cummeen Strand SPA, the current population trend for this species is considered unfavourable			

[A999] Wetland and Waterbirds	The wetland habitat area was estimated as 1732ha using OSi data and relevant orthophotographs. At its closest point, Cummeen Strand SPA is 7.4km to the north of the application site.	within the SPA, as well as habitats within the SPA. This may cause a loss of suitable habitat and/or food availability to the species listed as "special conservation interest". There will be no direct pathways i.e., noise disturbance or land-take, due to the distance from the application site to the SPA.	N/A	of open water habitat, loss of high tide roosts, threat of introduced species, introduction of power cables, disturbance caused by recreational activities, disturbance by research activities, alteration of system dynamics and wildfowl		reducing the Bird species' food availability, and may increase competition between the species and anglers within the SPA. All species, for which the site is designated, will be exposed to the same potential effects.

Table 3-7: Identification of Impacted Qualifying Features of Drumcliff Bay SPA

Special Conservation Interest	Closest Proximity	Pathway	Conservation Status	Threats & Pressures	Conservation Objective	Potential for Effects
[A144] Sanderling (*Calidris alba*)	Wintering populations of this species are widespread in a range of coastal habitats. The closest recorded population is recorded at Ballysadare Bay (695m northwest of the application site). However, Drumcliff Bay provides optimal habitat for the species, of which shows high site fidelity.	The site is hydrologically and hydrogeologically linked to Drumcliff Bay SPA which is 11.6km north of the application site via runoff into the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Pollution of the watercourse adjacent to the southern site boundary will have adverse impacts on the water quality within the SPA, as well as habitats within the SPA. This may cause a loss of suitable	Within Drumcliff Bay SPA, the current population trend for this species is considered highly unfavourable	Threats and Pressures directly associated with the species mentioned include significant changes in land management of adjoining habitat, aquaculture, bait digging – commercial or 'recreational' and shellfish gathering, beach sand and gravel extraction, boat disturbance (commercial and recreational) – injury from boats and a potential increase in pollution of water, lack of coastal protection schemes, drainage, dredging, enhanced bird	- To maintain the favourable conservation condition of each listed species in Drumcliff Bay SPA - To maintain the favourable conservation conditions of the wetland habitat in Drumcliff Bay SPA as a resource for migratory waterbirds that utilise it.	**There are potential effects anticipated on this qualifying interest.** Potential pollution of the Ballysadare River (IE_WE_35B050100), adjacent to the southern site boundary, which flows into Ballysadare Bay, and further the Atlantic Ocean, which connects to this designation. Additionally, potential pollution of the watercourse on-
[A157] Bar-tailed Godwit (*Limosa lapponica*)	Wintering populations of this species are widespread in a range of coastal habitats. The closest recorded population is recorded at Ballysadare Bay (695m northwest of the application site). However, Drumcliff Bay provides optimal habitat for the species, of which shows moderate site fidelity.		Within Drumcliff Bay SPA, the current population trend for this species is considered favourable			

[A999] Wetland and Waterbirds	The wetland habitat area was estimated as 1843ha using OSi data and relevant orthophotographs. At its closest point, Drumcliff Bay SPA is 11.6km to the north of the application site.	habitat and/or food availability to the species listed as "special conservation interest". There will be no direct pathways i.e., noise disturbance or land-take, due to the distance from the application site to the SPA	N/A	competitions, fishing (commercial and recreational), loss of intertidal habitat, loss of open water habitat, alteration of habitat quality of inter-tidal habitat, alteration of habitat quality of open water habitat, loss of high tide roosts, threat of introduced species, introduction of power cables, disturbance caused by recreational activities, disturbance by research activities, alteration of system dynamics and wildfowl.		site leading to a potential degradation in water quality may impact fish populations within the SPA, reducing the Bird species' food availability, and may increase competition between the species and anglers within the SPA. All species, for which the site is designated, will be exposed to the same potential effects.

3.3 Natura 2000 Impact Assessment

The potential impacts of the proposed development on the Natura 2000 sites identified above are described in Table 3-8 below.

Table 3-8: Natura 2000 Impact Assessment

Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on nearby Natura 2000 site:
The proposed works could significantly affect the integrity of the site structure at the designated locations, namely Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA, unless appropriate mitigation measures are implemented. A hydrogeological connection exists from the proposed site to the designated areas, and in the absence of mitigation, this connection is likely to result in adverse impacts on these sites. The application site is located at its closest proximity to Unshin River SAC at approx. 1.5m, Ballysadare Bay SAC at approx. 515m, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC at approx. 7.1km, Ballysadare Bay SPA at approx. 695m, Cummeen Strand SPA at approx. 7.4km, and Drumcliff Bay SPA at approx. 11.6km. Furthermore, a direct source-pathway-receptor linkage has been identified between the works site and the designated sites, suggesting the potential for negative impacts to occur.
Describe any likely direct, indirect, or secondary impacts of the project (either alone or in combination with other plans or projects) on the nearby Natura 2000 sites by virtue of:
Size & Scale: Although the size and scale of the works are relatively small, there is a linkage between the works site and designated sites downstream through a source–pathway–receptor connection. Consequently, impacts may still occur. **Land-take:** There will be no land-take from any designated site. There will be no interference with the boundaries of any designated site. No direct impacts are anticipated.

Distance from Natura 2000 Site (or key features of the site): At its closest point, the proposed works site is situated from Unshin River SAC at approx. 1.5m, Ballysadare Bay SAC at approx. 515m, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC at approx. 7.1km, Ballysadare Bay SPA at approx. 695m, Cummeen Strand SPA at approx. 7.4km, and Drumcliff Bay SPA at approx. 11.6km. These sites have direct source-pathway-receptor linkages between them and the development site and are within the zone of influence.

Resource Requirements (water abstraction etc.): No resources will be taken from any Natura 2000 site, and there are no resource requirements that will impact on any designated site. No direct impacts are anticipated.

Emissions: The proposed works, during both construction and operation, should not generate emissions directly affecting the identified SACs or SPAs. However, without mitigation, there is potential for untreated run-off from the works site to reach these designated areas.

Excavation Requirements: Excavated material from the construction will be used on-site. Any remaining material will be disposed of in a responsible manner at a licensed facility away from any designated sites or areas of conservation value.

Transportation requirements: There will be no additional transportation requirements resulting from the proposed development and associated works that will have any impact on the Natura 2000 sites identified.

In-Combination / Cumulative Impacts: The proposed application was considered in combination with other developments or proposed developments in the area, and potential cumulative impacts were considered. A number of planning applications within the location of Strandhill, have been granted planning permission or are under review in the preceding five years, and where necessary, these applications were accompanied by Appropriate Assessment reports (Stage I / Stage II). Any future individual application that has the potential to impact upon a Natura 2000 site will be subject to Appropriate Assessment (AA) as required under Articles 6(3) of the Habitats Directive. The proposed development will not lead to any cumulative impacts upon any designated site when considered in combination with other developments that have been adequately screened for AA or where mitigation measures have been included as part of a Stage 2 AA for these developments.

Duration of Construction, Operation & Decommissioning: Once construction begins, the development should be complete within 18-24 months.

Describe any likely changes to the nearby Natura 2000 sites arising as a result of:

Reduction of habitat area: The proposed development lies outside the boundaries of any Natura 2000 site identified above. There will be no reduction of designated habitat area within any SAC, SPA, pSPA, or RAMSAR site. At its closest point, Unshin River SAC at approx. 1.5m, Ballysadare Bay SAC at approx. 515m, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC at approx. 7.1km, Ballysadare Bay SPA at approx. 695m, Cummeen Strand SPA at approx. 7.4km, and Drumcliff Bay SPA at approx. 11.6km. These designated sites have direct source-pathway-receptor linkages between them and the development site and are within the zone of influence. There is potential for impacts upon the habitats qualifying interests of the designated sites within 15km of the development which are hydrologically connected to the development site. Several qualifying interest features of these designated sites are within the zone of influence and would be affected without mitigation measures. There will be no interference with the boundaries of any SAC, SPA, or RAMSAR sites.

Disturbance to Key Species: The proposed development lies outside the boundaries of any Natura 2000 site identified above. Several identified designations are within the zone of influence of the development; therefore, there may be disturbance to key species associated with these designated sites if mitigation is not put in place.

- Unshin River SAC – Salmon (*Salmo salar*); Otter (*Lutra lutra*).
- Ballysadare Bay SAC - Narrow-mouthed Whorl Snail (*Vertigo angustior*); Harbour Seal (*Phoca vitulina*).
- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC – Narrow-mouthed Whorl Snail (*Vertigo angustior*); Sea Lamprey (*Petromyzon marinus*); River Lamprey (*Lampetra fluviatilis*); Harbour Seal (*Phoca vitulina*).
- Ballysadare Bay SPA – Light-bellied Brent Goose (*Branta bernicla hrota*); Dunlin (*Calidris alpina*); Bar-tailed Godwit (*Limosa lapponica*); Grey Plover (*Pluvialis squatarola*); Redshank (*Tringa totanus*).
- Cummeen Strand SPA - Light-bellied Brent Goose (*Branta bernicla hrota*); Oystercatcher (*Haematopus ostralegus*); Redshank (*Tringa totanus*).
- Drumcliff Bay SPA – Sanderling (*Calidris alba*); Bar-tailed Godwit (*Limosa lapponica*).

Habitat or species fragmentation: There will be no habitat or species fragmentation within any SAC, SPA, pSPA, or RAMSAR site. No ecological corridors between the proposed site and any designated site exist, which could cause habitat, or species fragmentation, therefore, no habitat or species fragmentation will occur.

Reduction in species density: There will be no reduction in species density within any SAC, SPA, pSPA, or RAMSAR site.

Changes in key indicators of conservation value (water quality etc.): There will be no negative impacts on groundwater quality within any SAC, SPA, pSPA or RAMSAR site as no hydrogeological connection exists between the development site and any designated site within the zone of influence. There is potential for negative impacts on surface water quality within Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA as there is a direct source-pathway-receptor linkage between watercourses on site and designated sites.

Describe any likely impacts on the nearby Natura 2000 sites as a whole in terms of:

Interference with the key relationships that define the structure or function of the site: It is considered likely that there will be any impacts on the key relationships that define the structure or function of any Natura 2000 sites identified if mitigation is not provided.

Provide indicators of significance as a result of the identification of effects set out above in terms of:

Loss - Estimated percentage of lost area of habitat: None

Fragmentation: None

Disruption & disturbance: Disturbance of key species

Change to key elements of the site (e.g., water quality etc.): Changes to water quality

4. Article 6(3) Appropriate Assessment Screening Statement & Conclusions

The findings of this Screening Assessment are presented following the European Commission's Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001) and Managing Natura 2000 Sites: the provisions of Article 6 of the 'Habitats' Directive 92/43/EEC (EC, 2018) as well as the Department of the Environment's Appropriate Assessment of Plans and Projects in Ireland - Guidance for Planning Authorities (DoEHLG, 2010).

The following sites have been identified as within the likely zone of impact, and further appropriate assessment is required[48]:

1. Unshin River SAC [001898][49] is located 1.5m to the south of the proposed development;
   - 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]
2. Ballysadare Bay SAC [000622][50] is located 515m to the northwest of the proposed development.
   - Estuaries [1130]
   - Mudflats and sandflats not covered by seawater at low tide [1140]
   - Embryonic shifting dunes [2110]
   - Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
   - Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
   - Humid dune slacks [2190]
   - *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]

[48] NPWS Protected Site Synopses and maps available on http://www.npws.ie/en/ProtectedSites/;
[49] NPWS Unshin River SAC: https://www.npws.ie/protected-sites/sac/001898
[50] NPWS Ballysadare Bay SAC: https://www.npws.ie/protected-sites/sac/000622

- *Phoca vitulina* (Harbour Seal) [1365]

3. Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627] located 7.1km to the north of the proposed development;

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
- *Juniperus communis* formations on heaths or calcareous grasslands [5130]
- Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]
- Petrifying springs with tufa formation (Cratoneurion) [7220]
- *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]
- *Petromyzon marinus* (Sea Lamprey) [1095]
- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Phoca vitulina* (Harbour Seal) [1365]

4. Ballysadare Bay SPA [004129][51] is located 695m to the northwest of the proposed development.

- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- Grey Plover (*Pluvialis squatarola*) [A141]
- Dunlin (*Calidris alpina*) [A149]
- Bar-tailed Godwit (*Limosa lapponica*) [A157]
- Redshank (*Tringa totanus*) [A162]
- Wetland and Waterbirds [A999]

5. Cummeen Strand SPA [004035] located 7.4km to the north of the proposed development:

[51] NPWS Ballysadare Bay SPA: https://www.npws.ie/protected-sites/spa/004129

- Light-bellied Brent Goose (*Branta bernicla hrota*) [A046]
- Oystercatcher (*Haematopus ostralegus*) [A130]
- Redshank (*Tringa totanus*) [A162]
- Wetland and Waterbirds [A999]

6. Drumcliff Bay SPA [004013] located 11.6km to the north of the proposed development:
   - Sanderling (*Calidris alba*) [A144]
   - Bar-tailed Godwit (*Limosa lapponica*) [A157]
   - Wetland and Waterbirds [A999]

5. Site Identification & Screening

This section provides the background information of the Natura 2000 sites screened to require assessment and the underlying reasoning behind this assessment. In total, 13-no. designations have been identified within 15km of the site. The majority of these designations, due to the benign nature of the development, can be screened out due to distance from the site, no hydrological or hydrogeological connection and no direct land-take or disturbance to qualifying species.

The application site is not located within any Natura 2000 site; however, 6-no. designations are located within proximity. These include Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These designations have been identified in terms of the potential for indirect adverse impacts to arise as a result of the proposed development of the site.

5.1 Designated Sites

Unshin River SAC [001898]

Distance: 1.5m south of the application site.

Site Synopsis Overview

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):

- 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]

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.

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 spp.*) 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: Orchidrich 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.

Conservation Objectives

- 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;
- To restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) in Unshin River SAC;
- To restore the favourable conservation condition of *Molinia* meadows on calcareous, peaty, or clayey-silt-laden soils (*Molinion caerulae*) in Unshin River SAC;
- To restore the favourable conservation condition of Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)* in Unshin River SAC;
- To maintain the favourable conservation condition of Atlantic Salmon (*Salmo salar*) in Unshin River SAC; and
- To maintain the favourable conservation condition of Otter (*Lutra lutra*) in Unshin River SAC.

Ballysadare Bay SAC [000622]

Distance: 515m northwest of the application site.

Site Synopsis Overview

Ballysadare Bay extends for about 10km westwards from the town of Ballysadare, Co. Sligo, and is the most southerly of three inlets of the larger Sligo Bay. The estuarine channel of the Ballysadare River winds its way through the bay, finally reaching the open sea near the spit at Strandhill dunes. The bay is underlain by sedimentary rocks of limestones, sandstones, and shales, which are exposed as low cliffs and small sections of bedrock shore at several locations. Knocknarea Mountain overlooks the site.

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):

- Estuaries [1130]

- Mudflats and sandflats not covered by seawater at low tide [1140]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
- Humid dune slacks [2190]
- *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]
- *Phoca vitulina* (Harbour Seal) [1365]

Ballysadare Bay contains extensive intertidal sand and mudflats, approximately 1,500 ha in extent overall. The mud provides an abundance of food for wildfowl, in the form of colonising plants such as Eelgrass (*Zostera marina*) and Tasselweed (*Ruppia maritima*), as well as numerous species of invertebrates on which both wildfowl and waders feed. Well-developed salt marshes occur at several locations around the bay. Typical species of these areas are Sea Rush (*Juncus maritimus*), Saltmarsh Rush (*Juncus gerardi*), Creeping Bent (*Agrostis stolonifera*) and Parsley Water-dropwort (*Oenanthe lachenalii*). In hollows and ditches, Sea Arrowgrass (*Triglochin maritima*), Sea Club-rush (*Scirpus maritimus*), Sea Milkwort (*Glaux maritima*), Thrift (*Armeria maritima*), Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*) and Red Fescue (*Festuca rubra*) occur. Particularly interesting species found on the salt marshes are Flowering Rush (*Butomus umbellatus*), Slender Spike-rush (*Eleocharis uniglumis*) and Hard Grass (*Parapholis strigosa*).

There is a large sand dune system at Strandhill which has been relatively undisturbed by grazers. The dune system is highly dynamic, with the tip of the peninsula actively growing and displaying a good, though limited, example of embryonic shifting dunes. The characteristic species found in this habitat type include Sand Couch (*Elymus farctus*), Spear-leaved Orache (*Atriplex prostrata*) and Sea Rocket (*Cakile maritima*). Shifting marram dunes are fairly extensive in the area also, occurring along the entire seaward side of the spit, and they are especially active towards the tip. While Marram (*Ammophila arenaria*) is the dominant species, Colt's foot (*Tussilago farfara*), Red Goosefoot (*Chenopodium rubrum*) and Cat's-ear (*Hypochoeris radicata*) can also be found. The seaward dunes reach considerable heights (up to 20 m). They are very steep on the seaward edge, but to the east of this there is an undulating expanse of dune hills.

The largest proportion of the dune system is made up of fixed dunes, a priority habitat listed on Annex I of the E.U. Habitats Directive. Once one moves landward, in from the Marram dunes, there is a low-growing, closed sward which is particularly species-rich, with Field Wood-rush (*Luzula campestris*), Kidney Vetch (*Anthyllis vulneraria*), Bee Orchid (*Ophrys apifera*), Oxeye Daisy (*Leucanthemum vulgare*), Common Centuary (*Centaurium erythraea*), Wild Thyme (*Thymus praecox*), Harebell (*Campanula rotundifolia*), Burnet Rose (*Rosa pimpinellifolia*), Carline Thistle (*Carlina vulgaris*) and Fairy Flax (*Linum catharticum*). The fixed dune areas are also rich in bryophytes and lichens. Moss species include *Tortula ruraliformis, Homalothecium lutescens, Ditrichum flexicaule* and *Hypnum cupressiforme*, while lichens (*Peltigera spp. and Cladonia spp.*) are also present. Some humid

dune slacks occur amongst the fixed dunes. Characteristic species include Creeping Willow (*Salix repens*), Carnation Sedge (*Carex panicea*), Jointed Rush (*Juncus articulatus*) and the relatively uncommon Marsh Helleborine (*Epipactis palustris*).

A range of habitats fringe the bay, adding diversity to the site as a whole. Some of these areas have particular features of interest, e.g. the old oyster farm at Tanrego is important for waterfowl, while the uncommon plant species Ivy Broomrape (*Orobanche hederae*) occurs in scrubland adjacent to the bay.

Two animals listed on Annex II of the E.U. Habitats Directive occur within the site: The Bay supports a colony of Common Seal (maximum count of 257 in the all-Ireland survey of 2003), and the rare snail, *Vertigo angustior*, occurs in dune slacks and hollows in the dunes at Strandhill.

Ballysadare Bay is important for a range of waterfowl species in autumn and winter and is part of the larger Sligo Bay complex. Brent Goose occur in internationally important numbers, while a further seven species have populations of national importance. These are as follows, with numbers referring to the average peaks over winters 1994/95 - 1997/98: Brent Goose (259), Red-breasted Merganser (48), Oystercatcher (796), Grey Plover (231), Dunlin (1129), Bar-tailed Godwit (431), Redshank (481) and Greenshank (24). The presence of Bar-tailed Godwit, and also smaller numbers of Golden Plover (66), is of particular note as these species are listed on Annex I of the E.U. Birds Directive.

The bay is little-used for fishing or boating, but marsh shooting is common in the upper reaches. Aquaculture is little-developed in this bay compared to nearby Sligo and Drumcliff Bays. Dune systems are sensitive to developments which alter their structure. Grazing is also a critical factor; the correct level of grazing maintains an open, species-rich sward, but the presence of too many grazers causes damage to the vegetation and may exacerbate dune erosion. Agricultural improvement, and particularly the application of fertilisers, threatens dune vegetation, leading to the eventual loss of species diversity.

Ballysadare Bay is of high ecological value for its range of good-quality coastal habitats. Actively developing dune systems are rare on the west coast and the sand dune system at Strandhill is of particular interest as a large and intact example of a habitat type that is under general threat from development. The rarity of intact dune systems is recognised in the listing of fixed dunes as a priority habitat on Annex I of the E.U. Habitats Directive. The salt marshes at Ballysadare Bay are relatively good examples for the west coast, and that at Abbeytown is unusual as it is forming on quarry waste. The presence of two Annex II species within the site adds further importance. Furthermore, the bay supports nationally important numbers of waterfowl

Conservation Objectives:

- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Ballysadare Bay SAC;
- To maintain the favourable conservation condition of Embryonic shifting dunes in Ballysadare Bay SAC;
- To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Ballysadare Bay SAC;
- To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Ballysadare Bay SAC;

- To restore the favourable conservation condition of Humid dune slacks in Ballysadare Bay SAC;
- To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Ballysadare Bay SAC; and,
- To maintain the favourable conservation condition of Harbour Seal in Ballysadare Bay SAC.

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC [000627]

Distance: 7.1km north of the application site.

Site Synopsis Overview

This large coastal site extends from Cullamore in the north-west to Killaspug in the south-west, and from Sligo town in the south-east to Drumcliff village in the northeast. It encompasses two large, shallow bays, Drumcliff Bay and Sligo Harbour, and both Ardboline and Horse Island. Sand dunes and sand hills at Rosses Point, Killaspug, Yellow Strand and Coney Island are included, as are grasslands at Ballintemple and Ballygilgan (Lissadell), along with a variety of other habitats such as woodland, saltmarsh, sandy beaches, boulder beaches, shingle, fen, freshwater marshes, rocky sea cliffs and lakes. The site is largely underlain by Carboniferous limestone, but acidic rocks are also found on the Rosses Point peninsula. At Serpent Rock in the north-western section of the site the most complete section of the northwestern Carboniferous strata is exposed. Here are found an excellent series of fossilised corals which, in some strata, stand out from the rock matrix.

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):

- Estuaries [1130]
- Mudflats and sandflats not covered by seawater at low tide [1140]
- Embryonic shifting dunes [2110]
- Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes) [2120]
- Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130]
- *Juniperus communis* formations on heaths or calcareous grasslands [5130]
- Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) [6210]
- Petrifying springs with tufa formation (Cratoneurion) [7220]
- *Vertigo angustior* (Narrow-mouthed Whorl Snail) [1014]
- *Petromyzon marinus* (Sea Lamprey) [1095]

- *Lampetra fluviatilis* (River Lamprey) [1099]
- *Phoca vitulina* (Harbour Seal) [1365]

The dominant habitats on the site are estuaries and intertidal sand and mud flats. Sligo Harbour receives the waters of the Garavogue River, which flows from Lough Gill, while Drumcliff Bay receives the Drumcliff River which flows from Glencar Lough. At low tide extensive areas of intertidal flats are exposed in both of these sheltered estuarine bays. The intertidal flats support a diverse macrofauna, with invertebrate species such as lugworm (*Arenicola marina*), common cockle (*Cerastoderma edule*), sand mason worm (*Lanice conchilega*), Baltic tellin (*Macoma balthica*), spire shell (*Hydrobia ulvae*) and common mussel (*Mytilus edulis*) being frequent. Of particular note is the presence of the eelgrasses *Zostera noltii* and *Z. angustifolia* beds in both bays. Areas of saltmarsh fringe both bays in places.

Fixed dune grassland is found behind Yellow Strand, and the main species are Sand Sedge (*Carex arenaria*) and Smooth Meadow-grass (*Poa pratensis*), with associated species including Lady's Bedstraw (*Galium verum*), Mouse-ear Hawkweed (*Hieracium pilosella*), Common Milkwort (*Polygala vulgaris*), Common Dog-violet (*Viola riviniana*), Mountain Everlasting (*Antennaria dioica*), Common Spotted-orchid (*Dactylorhiza fuchsii*), Early Marsh-orchid (*D. incarnata*), Frog Orchid (*Coeloglossum viride*) and Autumn Lady's-tresses (*Spiranthes spiralis*). Some areas of fixed dune at the site are suffering from under-grazing (e.g., north of Strandhill), and have a rank vegetation dominated by Marram, with species such as Red Fescue (*Festuca rubra*), Creeping Willow (*Salix repens*), Daisy (*Bellis perennis*) and Wild Thyme (*Thymus praecox*) also occurring. A relatively species-poor example of the habitat is found at Rosses Point, but typical species like Marram, Red Fescue, Lady's Bedstraw, Harebell (*Campanula rotundifolia*), Kidney Vetch (*Anthyllis vulneraria*) and Common Mouse-ear (*Cerastium fontanum*) do occur here.

An area with Juniper (*Juniperus communis*) scrub is found on a gravel hill with species-rich fixed dune vegetation. Other species present in this area include Marram, Autumn Gentian (*Gentianella amarella*), Red Fescue, Lady's Bedstraw, Common Bird's-foot-trefoil, Harebell, Yellow-wort (*Blackstonia perfoliata*), Thyme-leaved Sandwort (*Arenaria serpyllifolia*), Common Whitlowgrass (*Erophila verna*), Hoary Whitlowgrass (*Draba incana*), Devil's-bit Scabious (*Succisa pratensis*) and Early Hair-grass (*Aira praecox*). An area of approximately 3.7 hectares of Orchid-rich Calcareous Grassland, a habitat listed with priority status on Annex I of the E.U. Habitats Directive, is reported to occur near Rosses Point, according to the Irish Semi-natural Grasslands Survey, 2010.

Wetlands on the site include Doonweelin Lake, a freshwater lake on the Rosses Point peninsula, which supports interesting vegetation communities that reflect the juxtaposition of the underlying acidic and basic rocks. Ardtermon Fen, a small, floristically-rich area of freshwater marsh, swamp, wet grassland, and fen is situated at the back of the Yellow Strand sand hills.

The site includes small areas of Hazel (*Corylus avellana*) and Ash (*Fraxinus excelsior*) woodland on limestone (e.g., Cummeen Wood), and several other stands of mixed woodland and wet willow (*Salix spp*.) woodland (as at Ardtermon Fen).

Cliff-top grassland is common in the north-western part of the site. This is typically dominated by Red Fescue and White Clover (*Trifolium repens*), with associated species including Daisy, Common Bird's-foot-trefoil (*Lotus corniculatus*), plantains (*Plantago coronopus, P. lanceolata* and *P. maritima*), Bulbous Buttercup (*Ranunculus bulbosus*), Common Scurvygrass (*Cochlearia officinalis*), Field Wood-rush (*Luzula campestris*) and Spring Sedge (*Carex caryophyllea*).

The site has a good example of petrifying springs with tufa formations, with several species of bryophyte typical of the *Cratoneurion*. The springs occur along seepage zones in clay sea cliffs on the northern side of Sligo Harbour.

The site has a very rich and diverse flora, on account of the wide variety of habitats found, and the presence of both basic and acidic substrates. Several rare, Red Data Book species have been recorded from the site, including Rough Poppy (*Papaver hybridum*) which is also listed under the Flora (Protection) Order, 2015, Hoary Whitlowgrass and Yellow Saxifrage (*Saxifraga aizoides*).

Both Drumcliff Bay and Cummeen Strand are important for the large numbers of waterfowl which use them in autumn/winter, including Ringed Plover, Redshank, Lapwing, Knot, Bar-tailed Godwit, Oystercatcher, Curlew, Golden Plover, Dunlin, Turnstone, Brent Goose, Grey Heron, Teal, Wigeon, Mallard, Shelduck and Red-breasted Merganser. The fields at Lissadell and Ballintemple support one of the largest populations of Barnacle Goose in the country (c. 2,000 in winters of 1995/96 and 1996/97). Both Drumcliff Bay and Cummeen Strand have been designated as Special Protection Areas under the E.U. Birds Directive. The important feeding site for Barnacle Goose at Lissadell is a Statutory Nature Reserve.

The islands in the north-western section of the site hold important seabird colonies. A Cormorant colony of national importance occurs on Ardboline and Horse Islands, with a total of 261 pairs in 1998. Herring Gull and Great Black-backed Gull also breed on both islands. Common Tern formerly bred on both islands. The islands are also used by Barnacle Goose from the adjacent mainland, which roost or seek refuge here. The low sea cliffs on the adjacent mainland at Ballyconnell and Roskeeragh Points also support small numbers of seabirds, and both Black Guillemot and Fulmar nest there. Choughs feed in the sandy/grassy areas of the site and one pair is known to nest. Several of the bird species that use the site are listed on Annex I of the E.U. Birds Directive, i.e., Barnacle Goose, Chough, Golden Plover, and Bar-tailed Godwit.

At least five species listed on Annex II of the E.U. Habitats Directive are found within this site. Drumcliff Bay is important for the presence of a breeding population of Common Seal. Ardboline and Horse Islands on the western side of the site are also important as haul-out areas for this species. A minimum population of 12–15 individuals was estimated from counts made in various month in 2007 and 2008. Sea Lamprey and River Lamprey have been recorded in the Garavogue River, and River Lamprey are also known from further upstream in the tributaries of Lough Gill. The Marsh Fritillary butterfly is found at Rosses Point, while the rare snail *Vertigo angustior* has recently been recorded from sand dunes at Killaspugbrone.

Cummeen Strand/Drumcliff Bay (Sligo Bay) is an important site of high conservation significance, which includes a wide variety of habitat types, including several listed on Annex I of the E.U. Habitats Directive, several species listed on Annex II of this Directive, large and important populations of waterfowl and seabirds, and several rare plant species.

Conservation Objectives

- To maintain the favourable conservation condition of Estuaries in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Embryonic shifting dunes in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of *Juniperus communis* formations on heaths or calcareous grasslands in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Petrifying springs with tufa formation (*Cratoneurion*) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Sea Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC; and
- To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

Ballysadare Bay SPA [004129]

Distance: 695m northwest of the application site

Site Synopsis

Ballysadare Bay extends for approximately 10 km westwards from the town of Ballysadare, County Sligo. It is the most southerly of three inlets that form the eastern part of the larger Sligo Bay complex. The estuarine channel of the Ballysadare River winds its way through the bay, finally reaching the open sea near the Strandhill Dunes sand spit. The bay is underlain by sedimentary rocks of limestones, sandstones and shales which are exposed as low cliffs and small sections of bedrock shore at several locations.

The bay contains extensive intertidal sand and mudflats. The flats support good populations of macro-invertebrates which are important food items for wintering waterfowl. Common species present include the polychaete worms *Hediste diversicolor*, *Arenicola marina, Lanice conchilega* and *Nepthys hombergii*, and the *bivalves Cerastoderma edule,*

Macoma balthica and *Scrobicularia plana*. Also present on the intertidal flats are the vascular plants Eelgrass (*Zostera marina*) and Beaked Tasselweed (*Ruppia maritima*), which provide food for herbivorous wildfowl. Well-developed salt marshes, which provide roosting sites for birds at high tide, occur at several locations around the bay. The sandy beaches around the Strandhill peninsula are used by roosting birds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species:

- Light-bellied Brent Goose;
- Grey Plover;
- Dunlin;
- Bar-tailed Godwit;
- Redshank.

The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Ballysadare Bay is important for a range of waterfowl species in autumn and winter. The population of Light-bellied Brent Goose (188) is of international importance (all figures are mean peak counts for four winters in the period 1995/96 to 1999/2000). The populations of four other species are of national importance, i.e. Grey Plover (70), Dunlin (1,420), Bar-tailed Godwit (251) and Redshank (435). A range of other species occurs, including Whooper Swan (15), Shelduck (55), Wigeon (617), Teal (179), Mallard (304), Goldeneye (17), Red-breasted Merganser (26), Cormorant (43), Oystercatcher (518), Ringed Plover (96), Golden Plover (301), Lapwing (467), Curlew (508), Greenshank (22), Turnstone (40), Black-headed Gull (261) and Common Gull (203).

Ballysadare Bay SPA is of high ornithological importance - it supports a Light-bellied Brent Goose population of international importance as well as nationally important populations of four other wintering waterfowl species. The presence of Bar-tailed Godwit, Golden Plover and Whooper Swan is of particular note as these species are listed on Annex I of the E.U. Birds Directive. The site forms an important component of the larger Sligo Bay complex.

Conservation Objectives:

- To maintain the favourable conservation condition of Light-bellied Brent Goose in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of Grey Plover in Ballysadare Bay SPA
- To maintain the favourable conservation condition of Dunlin in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of Bar-tailed Godwit in Ballysadare Bay SPA;

- To maintain the favourable conservation condition of Redshank in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of the wetland habitat in Ballysadare Bay SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

Cummeen Strand SPA [004035]

Distance: 7.4km north of the application site

Site Synopsis Overview

Cummeen Strand is a large shallow bay stretching from Sligo Town westwards to Coney Island. It is one of three estuarine bays within Sligo Bay and is situated between Drumcliff Bay to the north and Ballysadare Bay to the south. The Garavogue River flows into the bay and forms a permanent channel.

At low tide, extensive sand and mud flats are exposed. These support a diverse macro-invertebrate fauna which provides the main food supply for the wintering waterfowl. Invertebrate species such as Lugworm (*Arenicola marina*), Ragworm (*Hediste diversicolor*), Cockles (*Cerastoderma edule*), Sand Mason (*Lanice conchilega*), Baltic Tellin (*Macoma balthica*), Spire Shell (*Hydrobia ulvae*) and Mussels (*Mytilus edulis*) are frequent. Of particular note is the presence of eelgrass *(Zostera noltii* and *Z. angustifolia*) beds, which provide a valuable food stock for herbivorous wildfowl. The estuarine and intertidal flat habitats are of conservation significance and are listed on Annex I of the E.U. Habitats Directive. Areas of salt marsh fringe the bay in places and provide roosting sites for birds during the high tide periods. Sand dunes occur at Killaspug Point and Coney Island, with a shingle spit at Standalone Point near Sligo Town.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher and Redshank. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species:

- Light-bellied Brent Goose (Branta bernicla hrota) [A046]
- Oystercatcher (Haematopus ostralegus) [A130]
- Redshank (Tringa totanus) [A162]
- Wetland and Waterbirds [A999]

Cummeen Strand supports important concentrations of wintering waterfowl, including an internationally important Light-bellied Brent Goose flock (223) and nationally important populations of Oystercatcher (680) and Redshank (408). Other species occurring include Shelduck (86), Wigeon (149), Teal (54), Mallard (145), Redbreasted Merganser (15), Golden Plover (428), Lapwing (695), Knot (165), Sanderling (14), Dunlin (539), Bar-tailed Godwit (85), Curlew (430), Greenshank (13) and Turnstone (62) - all figures are mean peak counts for 4 of the 5 winters between 1995/96 and 1999/2000. Whooper Swan (7) also uses the site, though not regularly.

Cummeen Strand SPA is of high ornithological importance with one species, Lightbellied Brent Goose, occurring in numbers of international importance. In addition, the site supports nationally important populations of a further two species. The regular presence of Golden Plover and Bar-tailed Godwit is of particular note as these species are listed on Annex I of the E.U. Birds Directive. The site is also important as a component of the much larger Sligo Bay complex. Cummeen Strand is a Ramsar Convention site.

Conservation Objectives

- To maintain the favourable conservation condition of Light-bellied Brent Goose in Cummeen Strand SPA;
- To maintain the favourable conservation condition of Oystercatcher in Cummeen Strand SPA;
- To maintain the favourable conservation condition of Redshank in Cummeen Strand SPA; and
- To maintain the favourable conservation condition of wetland habitat in Cummeen Strand SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

Drumcliff Bay SPA [004013]

Distance: 11.6km north of the application site

Site Synopsis Overview

Drumcliff Bay, Co. Sligo is the most northerly of Sligo Bay's three estuarine inlets. The bay comprises an inner area of sheltered estuarine habitat and an outer area of shallow seawater. It extends 9 km east to west from Drumcliff village to Raghly Point. Drumcliff Bay is the estuary of the Drumcliff River, a substantial river flowing from Glencar Lough to the east. The inner part of Drumcliff Bay is sheltered by a sandy/grassy peninsula extending north from Rosses Point. The northern part of the bay is fringed by fine sandy beaches - Ballygilgan Strand, Lissadell Strand and Ardtermon Strand. Salt marsh occurs in the most sheltered areas and at low tide, extensive inter-tidal flats are exposed. A bed of Dwarf Eelgrass (*Zostera noltii*) occurs near the south-eastern corner of the bay.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species:

- Sanderling; and

- Bar-tailed Godwit.

The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

Drumcliff Bay SPA is of importance as it supports nationally important populations of two species of wintering waterfowl: Sanderling (237) and Bar-tailed Godwit (336) – all figures are four year mean peaks for four of the five winters between 1995/96 and 1999/2000. Other species that occur regularly include Whooper Swan (45), Light-bellied Brent Goose (74), Shelduck (75), Wigeon (138), Teal (57), Long-tailed Duck (14), Redbreasted Merganser (20), Great Northern Diver (13), Oystercatcher (356), Ringed Plover (139), Lapwing (155), Knot (107), Dunlin (559), Curlew (177) and Redshank (138).

Drumcliff Bay SPA is of national importance for its winter populations of Sanderling and Bar-tailed Godwit, and the site supports a good diversity of other waterfowl species. Of note is that three of the species which occur regularly (Whooper Swan, Great Northern Diver, and Bar-tailed Godwit) are listed on Annex I of the E.U. Birds Directive. Part of Drumcliff Bay SPA is a Wildfowl Sanctuary.

Conservation Objectives

- To maintain the favourable conservation condition of Sanderling in Drumcliff Bay SPA;
- To maintain the favourable conservation condition of Bar-tailed Godwit in Drumcliff Bay SPA; and
- To maintain the favourable conservation condition of wetland habitat in Drumcliff Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

5.2 Favourable Conservation Status

The purpose of designating and managing Natura 2000 sites is to maintain at or restore to 'favourable conservation status' the habitats and species listed within the Directives for which the sites are notified; individual conservation objectives encapsulate an overall aim of maintaining or achieving favourable conservation status for each feature and maintaining the integrity of the site as a whole.

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 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.

Article 6(3) of the Habitats Directive requires that prior assessment be conducted regarding the established conservation objectives for each designated site. A general conservation objective encapsulating an overall aim of maintaining 'favourable conservation status' has been applied in relation to each Natura 2000 site and in relation to each site feature for the purposes of initial analysis.[52]

5.3 Screening Matrix

No direct impacts to include Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA are anticipated due to the scale and nature of the development and upon the existing habitats and species on-site. However, the site is hydrologically and hydrogeologically connected to protected areas via surface water run-off and groundwater bodies which flow into the European designated sites detailed above; therefore, a screening matrix has been applied to assess the following potential impacts of the proposed development.

Potential Pathways:

- Contaminated surface water runoff from the construction phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. Additionally, surface water runoff from the construction phase via percolation into a Karstified Locally Important Aquifer with a high groundwater vulnerability status (areas able to easily transmit pollution to groundwater), which is hydrogeologically connected to protected sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA;
- Inappropriate management of operations during the construction phase within a construction site containing Giant Hogweed, Winter Heliotrope, and Buddleia, leading to the accidental spreading of highly invasive alien plant species, via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites.

[52] EC (2002) Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission

This process could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA;

- Discharge of untreated/unmanaged surface water runoff from the operational phase via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA;
- Discharge of untreated foul water runoff from the operational phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA.

The site is bounded to the south by a highly vulnerable designation; it is hydrologically or hydrogeologically linked to 6-no. designations in total. The prevention of contaminants, silts, sediments, and unrestricted surface/foul water from entering watercourses/field drains hydrologically or hydrogeologically connected to Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA during construction and throughout the operational phase of the development is vital. Where this pathway can be eliminated, this will significantly reduce the potential impacts on the integrity of these sites, ensuring no detrimental impacts are likely to occur.

Table 5-1: Stage 1 Test of Likely Significance (TOLS) of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA

Description of project/development	The current site consists of ornamental and non-native shrubs, treelines, refuse and buildings and artificial services. Permission is sought for: 1. Renovation of approx. 71.97m² two-storey derelict retail building and change of use from dwelling to hostel. 2. Construction of a 347.53m², 13 No. bedroom hostel to the rear of the renovated derelict building described above. 3. 18 no. residential units consisting of 2 no. one bed units, 4 no. two bed units, 8 no. three bed units and 4 no. five bed units. 4. Demolition of existing derelict shed approx. 86m². 5. Renovation of approx. 139.7m² existing two-storey derelict dwelling (niah no. 32309002) including demolition of 17.7m2 existing two storey extension to rear, additional extension to rear, and change of use from a dwelling to a restaurant. 6. Associated site works including parking, riverside walk and site services.

Designated site(s)	Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA.

Description of likely impacts on designated sites	○ Contaminated surface water runoff from during the construction phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. Additionally, surface water runoff from the construction phase via percolation into a Karstified Locally Important Aquifer with a high groundwater vulnerability status (areas able to easily transmit pollution to groundwater), which is hydrogeologically connected to protected sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA; ○ Inappropriate management of operations during the construction phase within a construction site containing Giant Hogweed, Winter Heliotrope, and Buddleia, leading to the accidental spreading of highly invasive alien plant species, via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. This process could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA; ○ Discharge of untreated/unmanaged surface water runoff from the operational phase via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA; ○ Discharge of untreated foul water runoff from the operational phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites a. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA.
Likely impacts (direct, indirect or secondary impacts) on the designations	
Size and scale	The site is physically separated from the Unshin River SAC by 1.5m, Ballysadare Bay SAC by 557m, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC by 7.1km, Ballysadare Bay SPA by 720m, Cummeen Strand SPA by 7.4km, and Drumcliff Bay SPA by 11.6km and is relatively small in scale.
Land-take	The proposal does not require any land taken from within any SAC/SPA
Distance from designations or key features of the site	The site is physically separated from Unshin River SAC by 1.5m, Ballysadare Bay SAC by 515m, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC by 7.1km, Ballysadare Bay SPA by 695m, Cummeen Strand SPA by 7.4km, and Drumcliff Bay SPA by 11.6km.
Resource requirements	The proposal does not require any resources from within any SAC/SPA.
Excavation requirements	The proposal does not require any excavation from within either SAC/SPA.
Transport requirements	All transportation requirements will be achieved using the existing public road network and will not result in significant effects on the designated sites.

Duration of construction	Estimated 1-2 years
Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the Natura 2000 site as a result of:	
Reduction of Habitat	The proposal will not result in the reduction of habitat within any SAC/SPA or areas supporting natural and semi-natural habitat.
Disturbance to Key species	No disturbance was predicted due to setback distance.
Habitat Fragmentation	During the construction and operational phase, no habitats are to be fragmented, which could be important for any species for which the designations are held.
Reduction of Species Diversity	During the construction and operational phase, the development is not considered to directly reduce the populations of species for which the designations occur. A multitude of factors can influence the reduction of species; however, this proposed development is considered to have a negligible effect on them.

The test of likely significance (TOLS) at Stage 1 has indicated that the proposal is likely to have an effect on Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA, causing degradation to the sensitive selection features as detailed above. Therefore, as indirect impacts are likely to occur and based on the precautionary approach, a Stage 2 Appropriate Assessment must be undertaken.

6. Stage 2- Appropriate Assessment

6.1 Potential Pathway - Mitigation Proposals

Mitigation proposals to ensure no adverse effect on any Natura 2000 site identified within the likely zone of impact highlighted above are detailed below.

- Contaminated surface water runoff from the construction phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. Additionally, surface water runoff from the construction phase via percolation into a Karstified Locally Important Aquifer with a high groundwater vulnerability status (areas able to easily transmit pollution to groundwater), which is hydrogeologically connected to protected sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed through an effective and robust Construction Environmental Management Plan (CEMP) ensuring that best practice is applied to all aspects of the construction phase.
- Inappropriate management of operations during the construction phase within a construction site containing Giant Hogweed, Winter Heliotrope, and Buddleia, leading to the accidental spreading of highly invasive alien plant species, via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. This process could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. This pollution pathway can be managed by implementing an effective Invasive Species Management Plan for Giant Hogweed, outlining required treatments to the species before works on-site can proceed, as well as adhering to best management guidelines for Winter Heliotrope and Buddleia.
- Discharge of untreated/unmanaged surface water runoff from the operational phase via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed through the implementation of appropriate Sustainable Drainage Systems (SUDS) to align on-site drainage with natural water processes and the implementation of an appropriate surface water treatment in the form of a Class 1 interceptor or suitable alternative; and
- Discharge of untreated foul water runoff from the operational phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated

sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed by connecting foul water to a public sewer system, or alternatively an appropriately sized on-site wastewater treatment system with a percolation area can be utilised if foul wastewater proposals are not directed to a public sewer.

The following tables 6-1 to 6-5 present mitigation, assessment of mitigation and findings.

Table 6-1: Stage 2 Appropriate Assessment: Construction Phase Surface Water Runoff - Mitigation Measures

Mitigation measures to be introduced?	How will the measures avoid adverse effects on the integrity of the site?	How will the measures reduce the adverse effects on the integrity of the site?	Provide evidence of how they will be implemented and by whom?
Contaminated surface water runoff from the construction phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. Additionally, surface water runoff from the construction phase via percolation into a Karstified Locally Important Aquifer with a high groundwater vulnerability status (areas able to easily transmit pollution to groundwater), which is hydrogeologically connected to protected sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed through an effective and robust Construction Environmental Management Plan (CEMP) ensuring that best practice is	Source and pathway to receptors have been controlled, managed and/or removed as part of the implementation of the CEMP and measures therein concerning construction activities. No adverse impacts are predicted.	Once a source and pathway to receptors have been controlled, managed and/or removed as part of the implementation of the CEMP. These measures remove the potential for adverse effects on the integrity of the N2K sites.	A CEMP should be required as part of planning approval/conditions and formal approval for the same with the planning authority. The principal contractor will be responsible for the implementation of the CEMP.
	Provide evidence of the degree of confidence in their likely success.	Provide a timescale, relative to the project or plan, when they will be implemented.	Explain the proposed monitoring scheme and how any mitigation failure will be addressed.
	If a CEMP is implemented, the pollution source and pathway is controlled, managed and/or removed; therefore, no pollutant can enter pathways, ensuring no adverse effects on N2K sites. Authors are confident in the likely success of these mitigation measures.	Throughout the duration of the construction phase of the development.	Mitigation procedures will be managed by the Ecological Clerk of Works (ECoW) and the principal contractor, daily checks shall be undertaken and recorded, and documentation will be retained on a continuous basis to ensure implementation and compliance. Issues raised will be addressed by the principal contractor.

applied to all aspects of the construction phase. (See Appendix A for the required outline of a Construction Environmental Management Plan).			

Table 6-2: Stage 2 Appropriate Assessment: Operations Within an Area Containing Invasive Species - Mitigation Measures

Mitigation measures to be Introduced	How will the measures avoid adverse effects on the integrity of the site?	How will the measures reduce the adverse effects on the integrity of the site?	Provide evidence of how they will be implemented and by whom?
Inappropriate management of operations during the construction phase within a construction site containing Giant Hogweed, Winter Heliotrope, and Buddleia, leading to the accidental spreading of highly invasive alien plant species, via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. This process could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. This pollution pathway can be managed by implementing an effective Invasive Species Management Plan for	The objective of an invasive species management plan (ISMP) is to control, and/or eradicate Invasive species from the construction zone in advance of any site works within the infested area. The implementation of an ISMP will ensure this invasive species issue is addressed before main construction activities begin. An effective and robust ISMP will eliminate the issue of invasive species on-site and, in turn, eliminate the potential for adverse effects on designated sites downstream throughout the construction and operational phases. No adverse impacts are predicted.	An effective and robust ISMP will eliminate the potential issue of invasive species on-site and, in turn, eliminate the potential for adverse effects on designated sites downstream throughout the construction and operational phases.	A site-specific ISMP should be developed and prepared in accordance with best practice guidance. Such a plan should be implemented by the principal contractor throughout the construction and operational phases of the development. See Appendices for information on ISMP requirements.
	Provide evidence of the degree of confidence in their likely success.	Provide timescale, relative to the project or plan, when they will be implemented.	Explain the proposed monitoring scheme and how any mitigation failure will be addressed.

Giant Hogweed, outlining required treatments to the species before works on-site can proceed, as well as adhering to best management guidelines for Winter Heliotrope and Buddleia. (See Appendix B for further detail on ISMP requirements).	If an effective and robust invasive species management plan is implemented as part of the development with a goal of controlling and/or eradicating invasive species from the site, such measures will ensure downstream environments will not be affected. Eliminating the source (invasive species) reduces the risk to downstream environments (designated sites). Authors are confident in the likely success of these mitigation measures.	This ISMP will be implemented throughout the construction and operational phases of the development and will continue until the ISMP objectives are met.	Implementing the plan and the measures therein is the responsibility of the principal contractor. The developed plan will have a range of measures to include a post-construction monitoring and treatment programme to ensure the plan objectives are met.

Table 6-3: Stage 2 Appropriate Assessment: Discharge of Unrestricted Surface Water - Mitigation Measures

Mitigation measures to be Introduced	How will the measures avoid adverse effects on the integrity of the site?	How will the measures reduce the adverse effects on the integrity of the site?	Provide evidence of how they will be implemented and by whom?
Discharge of untreated/unmanaged surface water runoff from the operational phase via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed through the implementation of appropriate Sustainable Drainage Systems (SUDS) to	The use of Sustainable Drainage Systems (SuDS) (attenuation and flow break) on-site will align on-site surface water drainage with natural water processes, eliminating unrestricted surface water discharge. The source of pollution is eliminated through the Installation of an appropriately sized Sustainable Drainage System. Such equipment will reduce site runoff rates to that of greenfield levels. Additionally, installation of an appropriately sized Class 1 interceptor or suitable alternative will reduce potential contaminant concentrations (silt and hydrocarbons) in surface water discharge runoff to acceptable concentrations throughout the duration of the operation phase. No adverse impacts are predicted.	Installation of appropriately sized Sustainable Drainage Systems and Class 1 Petrol Interceptor will reduce potential contaminant sources (unrestricted flow) in surface water runoff. Eliminating the pollutant source eliminates potential. These measures remove the potential for adverse effects on the integrity of the N2K sites. No adverse impacts are predicted.	Equipment should be installed and maintained in accordance with the design spec and installation requirements as laid out by the equipment manufacturer. The principal contractor will be responsible for installing equipment.

align on-site drainage with natural water processes and the implementation of an appropriate surface water treatment in the form of a Class 1 interceptor or suitable alternative. (See Appendix C for further detail on SUD's requirements). (See Appendix D for further details on Interceptor requirements).	Provide evidence of the degree of confidence in their likely success.	Provide timescale, relative to the project or plan, when they will be implemented.	Explain the proposed monitoring scheme and how any mitigation failure will be addressed.
	Sustainable Drainage Systems (SuDS) are drainage systems that are considered to be environmentally beneficial, causing minimal or no long-term detrimental damage. They are often regarded as a sequence of management practices, control structures and strategies designed to efficiently and sustainably drain surface water while minimising pollution and managing the impact on water quality of local water bodies. Restricting surface water discharge through implementing a system in line with engineers' drainage calculations and best practice ensuring greenfield runoff rates will eliminate downstream effects on designations. Approved technical specifications of equipment including Class 1 Petrol Interceptors will ensure appropriate discharge pollutant concentrations are adhered to. Authors are confident in the likely success of these mitigation measures.	This system will be installed during the construction phase and operational throughout the operational phase of the development.	This system will be installed, monitored, and serviced as per manufacturers' guidelines.

Table 6-4: Stage 2 Appropriate Assessment: Discharge of Untreated Foul Water- Mitigation Measures

Mitigation measures to be Introduced	How will the measures avoid adverse effects on the integrity of the site?	How will the measures reduce the adverse effects on the integrity of the site?	Provide evidence of how they will be implemented and by whom?
Discharge of untreated foul water runoff from the operational phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site	Installation of an appropriately sized on-site wastewater treatment system with a percolation area or discharging foul water to the public sewers will reduce the potential for foul water discharge runoff	Installation of an appropriately sized on-site wastewater treatment system with a percolation area or discharging foul water to the public sewers will reduce the potential for foul water discharge runoff.	Equipment should be installed and maintained in accordance with the design spec and installation requirements as laid out by the equipment manufacturer. The

boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed by connecting foul water to a public sewer system, or alternatively an appropriately sized on-site wastewater treatment system with a percolation area can be utilised if foul wastewater proposals are not directed to a public sewer. (see Appendix E for further details on on-site wastewater treatment system requirements).	throughout the duration of the operation phase. No adverse impacts are predicted.	No adverse impacts are predicted.	principal contractor will be responsible for installing equipment.
	Provide evidence of the degree of confidence in their likely success.	Provide timescale, relative to the project or plan, when they will be implemented.	Explain the proposed monitoring scheme and how any mitigation failure will be addressed.
	Approved technical specifications of such equipment will ensure appropriate discharge pollutant concentrations are adhered to. Authors are confident in the likely success of these mitigation measures.	This system will be installed during the construction phase and operational throughout the operational phase of the development.	This system will be installed, monitored, and serviced as per manufacturers' guidelines.

Table 6-5: Stage 2 Appropriate Assessment

Describe the elements of the project or plan (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the site (from screening assessment).	The proposed development site is located at O'Connor's Yard, Main Street, Ballysadare (Grid Reference: G 66875 29070). The site is located approximately 35m south of Ballysadare town centre, 7.4km southwest of Sligo town centre, and 59km southwest of Enniskillen town centre. The area surrounding the site consists of residential properties associated with Fairgreen Square and the N4 national road from Sligo to Dublin to the east, Ballysadare River to the south, the N59 national road from Sligo to Galway to the west, and commercial properties associated with Ballysadare town to the north. The wider environs include interspersed areas of road, agricultural grassland, watercourses, residential dwellings, commercial properties, hedgerows, and treelines. The current site itself consists of ornamental and non-native shrub, treelines, refuse and other waste, and buildings and artificial services. o Contaminated surface water runoff from the construction phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. Additionally, surface water runoff from the construction phase via percolation into a Karstified Locally Important Aquifer with a high groundwater vulnerability status (areas able to easily transmit pollution to groundwater), which is hydrogeologically connected to protected sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution

	pathways can be managed through an effective and robust Construction Environmental Management Plan (CEMP) ensuring that best practice is applied to all aspects of the construction phase. o Inappropriate management of operations during the construction phase within a construction site containing Giant Hogweed, Winter Heliotrope, and Buddleia, leading to the accidental spreading of highly invasive alien plant species, via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. This process could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. This pollution pathway can be managed by implementing an effective Invasive Species Management Plan for Giant Hogweed, outlining required treatments to the species before works on-site can proceed, as well as adhering to best management guidelines for Winter Heliotrope and Buddleia. o Discharge of untreated/unmanaged surface water runoff from the operational phase via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed through the implementation of appropriate Sustainable Drainage Systems (SUDS) to align on-site drainage with natural water processes and the implementation of an appropriate surface water treatment in the form of a Class 1 interceptor or suitable alternative; and o Discharge of untreated foul water runoff from the operational phase of development works via the Ballysadare River (IE_WE_35B050100) which is within close proximity of the southern site boundary. The Ballysadare River flows into Ballysadare Bay, and further into the Atlantic Ocean which are hydrologically connected to a number of designated sites. These processes could cause degradation of the overall environmental and ecological quality of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA. These pollution pathways can be managed by connecting foul water to a public sewer system, or alternatively an appropriately sized on-site wastewater treatment system with a percolation area can be utilised if foul wastewater proposals are not directed to a public sewer.
Conservation objectives	<u>Unshin River SAC Conservation Objectives</u> o 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; o To restore the favourable conservation condition of Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (* important orchid sites) in Unshin River SAC; o To restore the favourable conservation condition of *Molinia* meadows on calcareous, peaty or clayey-silt-laden soils (*Molinion caerulae*) in Unshin River SAC; o To restore the favourable conservation condition of Alluvial forests with *Alnus glutinosa* and *Fraxinus excelsior* (*Alno-Padion, Alnion incanae, Salicion albae*)* in Unshin River SAC; o To maintain the favourable conservation condition of Atlantic Salmon (*Salmo salar*) in Unshin River SAC; and o To maintain the favourable conservation condition of Otter (*Lutra lutra*) in Unshin River SAC. <u>Ballysadare Bay SAC Conservation Objectives:</u> o To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Ballysadare Bay SAC;

- To maintain the favourable conservation condition of Embryonic shifting dunes in Ballysadare Bay SAC;
- To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Ballysadare Bay SAC;
- To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Ballysadare Bay SAC;
- To restore the favourable conservation condition of Humid dune slacks in Ballysadare Bay SAC;
- To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Ballysadare Bay SAC;
- To maintain the favourable conservation condition of Harbour Seal in Ballysadare Bay SAC.

<u>Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC Conservation Objectives:</u>

- To maintain the favourable conservation condition of Estuaries in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Embryonic shifting dunes in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Shifting dunes along the shoreline with *Ammophila arenaria* ('white dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Fixed coastal dunes with herbaceous vegetation ('grey dunes') in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of *Juniperus communis* formations on heaths or calcareous grasslands in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Petrifying springs with tufa formation (*Cratoneurion*) in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of Narrow-mouthed Whorl Snail in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To restore the favourable conservation condition of Sea Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC;
- To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC; and
- To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.

<u>Ballysadare Bay SPA Conservation Objectives:</u>

- To maintain the favourable conservation condition of Light-bellied Brent Goose in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of Grey Plover in Ballysadare Bay SPA
- To maintain the favourable conservation condition of Dunlin in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of Bar-tailed Godwit in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of Redshank in Ballysadare Bay SPA;
- To maintain the favourable conservation condition of the wetland habitat in Ballysadare Bay SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.

<u>Cummeen Strand SPA Conservation Objectives:</u>

- To maintain the favourable conservation condition of Light-bellied Brent Goose in Cummeen Strand SPA;
- To maintain the favourable conservation condition of Oystercatcher in Cummeen Strand SPA;
- To maintain the favourable conservation condition of Redshank in Cummeen Strand SPA; and

	○ To maintain the favourable conservation condition of wetland habitat in Cummeen Strand SPA as a resource for the regularly occurring migratory waterbirds that utilise it. <u>Drumcliff Bay SPA Conservation Objectives:</u> ○ To maintain the favourable conservation condition of Sanderling in Drumcliff Bay SPA; ○ To maintain the favourable conservation condition of Bar-tailed Godwit in Drumcliff Bay SPA; and ○ To maintain the favourable conservation condition of wetland habitat in Drumcliff Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it.
Describe how the project or plan will affect key species and key habitats	The locations of proposed works, the nature of the construction activities and the potential proposed surface and foul water disposal methods on-site are likely to increase sediment, hydrocarbons, and other pollutants, including invasive species in localised drains, surface water bodies, groundwater features and other pollutant pathways. These features are potential pathway from the development site to Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand, SPA and Drumcliff Bay SPA for potentially contaminated runoff, causing degradation to the sensitive qualifying interests of designations within the zone of influence. Due to the distance from the Natura 2000 site, it is not anticipated there will be direct disturbance to the qualifying features of Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA, and Drumcliff Bay SPA from site operations, such as the movement of people and machinery.
Describe how the integrity of the site (determined by structure and function and conservation objects) is likely to be affected by the project or plan.	Degradation of the adjacent aquatic and terrestrial environments from contaminated surface water runoff (silts, hydrocarbons, surface and foul water and invasive species) as a result of construction and operational phases of the development. Such degradation would have a direct impact on designated species and habitats.
Mitigation measures are to be introduced to avoid adverse effects on the integrity of the site.	➢ Implementation of an effective and robust Construction Environmental Management Plan (CEMP), to ensure best practice is maintained throughout works on-site. ➢ Implementation of an effective and robust Invasive Species Management Plan (ISMP) for Giant Hogweed and following recommended management guidelines for Winter Heliotrope and Buddleia, ensuring that best practice is applied to all aspects of the construction and operational phases concerning invasive plant species. ➢ Implementation of appropriate Sustainable Drainage Systems (SUDS) to align on-site drainage with natural water processes. ➢ Implementation of an appropriate surface water treatment in the form of a Class 1 interceptor or suitable alternative. ➢ Connecting foul water to the public sewer system (Ballysadare Wastewater Treatment Plant), or an appropriately sized on-site wastewater treatment system with a percolation area can be utilised if foul wastewater proposals are not directed to public sewer.

7. Likely Cumulative Impact (In-Combination)

7.1 Other Plans and Projects

The potential for the proposed works to contribute to a cumulative impact on European Sites was considered. The National Planning Application Database for Sligo County Council[53] was consulted on the 29th of January 2024. Additional projects identified in the townland and within close proximity to the site within the last five years were reviewed in conjunction with the Policies and Objectives of the Sligo County Development Plan 2017-2023 and were considered as part of this assessment. Table 7-1 below details such considerations.

Table 7-1: Cumulative Impact Assessment of development when considered with surrounding developments

Plans	Key Policies and Objectives directly related to European Sites and Biodiversity in the Zone of Influence	Assessment of Potential Impact on European Sites
Sligo County[54] Development Plan 2017 - 2023	Objective O-H-2 Adopt and implement, in partnership with all relevant stakeholders, the County Sligo Biodiversity Action Plan 2011-2015 and subsequent biodiversity plans. Objective O-DSNC-1 Identify and protect local areas of high nature conservation value and support the management of landscape features that are of major importance for wild fauna and flora in accordance with Article 10 of the Habitats Directive. Policy P-NH-1 Protect, sustainably manage and enhance the natural heritage, biodiversity, geological heritage, landscape and environment of County Sligo in recognition of its importance for nature conservation and biodiversity, and as a non-renewable resource, in association with all stakeholders. Policy P-NH-2 Promote increased understanding and awareness of the natural heritage and biodiversity of the county. Policy P-NH-3	The Development Plan was comprehensively reviewed, with reference to Policies and Objectives that relate to biodiversity, protected species, and designated sites. There are no protected habitats within the site. The proposal includes: 1. Renovation of approx. 71.97m² two-storey derelict retail building and change of use from dwelling to hostel. 2. Construction of a 347.53m², 13 No. bedroom hostel to the rear of the renovated derelict building described above. 3. 18 no. residential units consisting of 2 no. one bed units, 4 no. two bed units, 8 no. three bed units and 4 no. five bed units. 4. Demolition of existing derelict shed approx. 86m². 5. Renovation of approx. 139.7m² existing two-storey derelict dwelling (niah no. 32309002) including demolition of 17.7m2 existing two storey extension to rear, additional extension to rear, and change of use from a dwelling to a restaurant. 6. Associated site works including parking, riverside walk and site services. Upon implementation of appropriate mitigation measures, there is no risk to designated sites because of the proposal. Several planning applications have been granted planning permission or are under review in the preceding five years, and where necessary, these applications were accompanied

		by HRA reports (Stage I / Stage II). The majority of these applications are expected to result in minimal disruption, such as change of use of buildings, construction of single dwellings and single-storey extensions to dwellings. Any future individual application that has the

[53] Sligo County Council Planning Applications Online, Available at: https://www.sligococo.ie/planning/SearchPlanningApplications/
[54] Sligo County Development Plan, Available at: DraftCDP2017-2023HabitatsDirectiveAssessment.pdf (sligococo.ie)

	Protect and, where possible, enhance the plant and animal species and their habitats that have been identified under the EU Habitats Directive, EU Birds Directive, the Wildlife Act and the Flora Protection Order. Policy P-DSNC-1 Protect and maintain the favourable conservation status and conservation value of all-natural heritage sites designated or proposed for designation in accordance with European and national legislation and agreements. These include Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Natural Heritage Areas (NHAs), Ramsar Sites, Statutory Nature Reserves. In addition, the Council will identify, maintain and develop non-designated areas of high nature conservation value that serve as linkages or 'stepping stones' between protected sites in accordance with Article 10 of the Habitats Directive. Policy P-DSNC-2 Promote the maintenance and, as appropriate, achievement of 'favourable conservation status' of habitats and species in association with the NPWS. Policy P-DSNC-3 Carry out an appropriate level of assessment for all development plans, land-use plans and projects it authorizes or proposes to undertake or adopt, to determine the potential for these to impact on designated or proposed designated sites in accordance with the Habitats Directive. Policy P-DSNC-4 Consider development within, or with the potential to affect, Natural Heritage Areas or proposed Natural Heritage Areas, where it is shown that such development, activities or works will not have significant negative impacts on such sites or features, or in circumstances where impacts can be appropriately mitigated.	potential to impact upon a Natura 2000 site will be subject to AASR as required under Articles 6(3) of the Habitats Directive. A list of planning applications near the site that have been granted in the past 5 years or are currently under review are listed below. 1. App. 19450 (07/01/2020) - Development consisting of amendment to Condition No. 3 of Planning Permission PL18/228. 2. App. 2360254 (14/11/2023) - to construct a block of two semi-detached, 2.5 storey, 3-bedroom houses including private open space, site landscaping, provision of vehicular access and all associated site works and service connections. 3. App. 2360253 (14/11/2023) - To construct a 45m² rear extension with a flat roof, internal reconfiguration of the existing house to include velux windows, private open space, site landscaping, provision of vehicular access and all associated site works and service connections. 4. App. 2360051 (16/05/2023) – Application for planning permission to (1) demolish existing flat roof extension to the rear of existing beauty salon premises (total floor area 27.2sq.m, (2) construct new rear extension (total floor area 211.5sq.m) including the carrying out of all necessary alterations and refurbishments accommodating the proposed works; (3) carry out all associated ancillary site works including connections to existing services at Main Street, Ballysadare, Co. Sligo. Relevant building is registered as Building of Note BoN No.1 in Ballysadare Mini-Plan. 5. App. 22284 (06/02/2023) - development consisting of the use of part of the ground floor restaurant approved under Planning Reference 04/1504 as a Public House. 6. App. 18441 (12/01/2019) - for development consisting of the change of use of 1 no. retail unit to 1 no. one-bed apartment (Unit 56 - Block 8). 7. App. 19290 (14/10/2019) - Development consisting of the change of use of existing ground floor unit circa 290m2 from office to day centre use and all associated site works. 8. App. 22167 (13/11/2022) - development consisting of: A) the demolition of existing derelict structures on site, and B) the construction of 22 no. houses, comprising 7 no. 2 bed units, 10 no 3 bed units and 5 no. 4 bed units, together with the creation of public open space, works to site boundaries, and all other associated site works and services. The proposed application is accompanied by a Natura Impact Statement. 9. App. 19310 (16/12/2019) - Development for 1. Permission to construct 13 dwelling houses (12 no. 3 bed semi-detached, 1 no. detached bungalow) within existing housing development currently being completed known as Carraig Abhainn, with connection to existing services and associated works. 2. Alterations to internal roads layout of

		existing permitted development to facilitate new dwellings with alterations to site boundaries as permitted under PL 99/21 and PL 16/179 refers. 10. App. 21329 (13/10/2021) - Development consisting of the construction of single storey extension to side of existing dwelling house with all associated works. 11. App. 22341 (26/01/2023) - development consisting of construction of: (1) two number, two storey detached dwelling houses: (2) a new vehicular access via an existing entrance on adjoining lands; together with all associated ancillary site works and service connections. 12. App. 22278 (05/10/2022) - development consisting of: 1. Partial demolition of an existing rear extension (floor area approx. 15m2); 2. Partial demolition of an existing rear shed (floor area approx. 53m2); 3. Construction of a new, rear, two storey extension to the existing dwelling house; together with all associated ancillary site works and services. 13. App. 19497 (13/02/2020) - development consisting of the retention of alterations to previously approved plans for renovation and extension of an existing dwelling, Planning Register Reference PL 15/302 and PL 16/87, consisting of; a first-floor window to west gable; west facing window to dormer to Bedroom 4 at the first floor; amended first floor footprint to include former attic space with 10.8 sq. m of additional gross floor area and ground floor rear window adjustments. 14. App. 223 (02/03/2022) - Development consisting of the building of a single storey extension to the rear of existing dwelling house, together with all ancillary site works and services. 15. App. 18511 (18/03/2019) - Development consisting of relocation of existing vehicular entrance along front boundary wall, 10m further east to serve existing dwelling house and site with all associated works. These developments are relatively small-scale developments. The proposed development will not lead to any cumulative impacts upon any designated site when considered in combination with other developments.

8. Assessment of Potential Impacts to Designations

The proposed development at stage one screening test of likely significance has demonstrated that the proposal is likely to cause degradation to the sensitive Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA's aquatic environments from contaminated surface or ground water runoff. The prevention of contaminants, silts, sediments, and invasive species from entering the sites pollution pathways hydrologically and/or hydrogeologically connected to Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA during construction and throughout the operational phase is therefore vital. Where this pathway can be eliminated, this will significantly reduce the potential impacts on the integrity of these sites so that no detrimental impacts are likely to occur.

The implementation and installation of the following mitigation measures will prevent the source (contaminants, silts, and sediments; and invasive species) from entering the pathways (the sites drainage pathways), therefore not adding to/increasing the total pollutant concentrations of the receptor (Unshin River SAC, Ballysadare Bay SAC, Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Ballysadare Bay SPA, Cummeen Strand SPA and Drumcliff Bay SPA).

- The implementation of an effective and robust Construction Environmental Management Plan (CEMP) to ensure best practice is maintained throughout work on-site (see Appendix A);
- The implementation of an effective and robust Invasive Species Management Plan (ISMP) for Giant Hogweed (Appendix B) and following recommended management guidelines for Winter Heliotrope and Buddleia, ensuring best practice is applied to all invasive species within the site and immediate environs through the construction and operational phases of the development (See the Ecological Appraisal produced by AVRIO associated with this planning application);
- The installation of appropriate Sustainable Drainage Systems (SuDs) to align on-site drainage with natural greenfield water processes/runoff rates (see Appendix C);
- The installation of appropriate surface water treatment in the form of a Class 1 interceptor, or suitable alternative (see Appendix D);
- The installation of appropriate foul water treatment in the form of connection to public sewer system or an appropriately sized wastewater treatment system with a percolation area that is managed by a wastewater treatment management company (see Appendix E).

There are no concerning additional live projects/developments located within proximity. Therefore, it is considered that there is no additive effect for significant cumulative or in combination impacts on the Natura 2000 network to occur as a result of the development.

Appendix A - Construction Environmental Management Plan Requirements

The Principal Contractor should implement the following mitigation measures into a CEMP to ensure environmental and ecological issues are prevented as a result of construction activities on-site:

- Construction workers should take all possible steps to avoid impacts on wildlife, habitats, and designated sites. Environmental awareness and a responsible attitude towards the natural environment are essential. The environmental objectives of the construction phase of the development should include minimising the generation of pollutants (i.e., dust, sediment, waste etc.), ensure no pollution incidents occur and minimise disturbance to wildlife while protecting and enhancing biodiversity;
- Prior to any works undertaken, appropriate measures should be implemented to prevent any pollution inputs into the surrounding drains and areas likely to be affected through surface water runoff. If runoff is still likely to occur, surface water should be managed to ensure it does not run into excavations, over disturbed ground or onto haul roads.

Surface & Ground Water Management

- Surface water drains, check dams, silt fencing, sediment traps (dynamic separator, straw bales, straw wattles etc., as deemed necessary prior to works commencing), and geotextile materials will be installed where necessary during the construction phase of the development. These measures will protect the surrounding surface and ground water, drains and waterbodies from any sediment (loose soil and debris) that may arise in the event of surface or ground water runoff on-site;
- Existing surface water channels or, where necessary new appropriately sized channels will be installed to collect and channel all surface water runoff.
- Appropriately sized gravel check dams will be installed within all sediment management surface water channels to minimise sediment mobilisation. All surface water channels will be directed to appropriately sized and designed sediment traps;
- Where dewatering from excavated areas is required, water should be pumped to a suitably sized portable settlement tank with silt bags included at the outlet to assist in sediment removal. The location of this system if required should be determined in conjunction with an ECoW on-site prior to dewatering works being undertaken;
- Stockpiles will be kept to a minimum. If soil stockpiling is required, they will be covered with geotextile material, and a silt fence will be erected at the toe of said stockpiles to minimise sediment mobilisation. A perimeter channel will be installed around the base of the stockpiles and directed towards the on-site sediment management channels, which will capture and re-treat any excess stockpile surface water runoff. Timeframes, the soil is stockpiled, and stripped grounds are exposed, will be kept to a minimum.

Sediment Management

- Silt fencing and geotextile materials will be installed during the construction phase of the development. These measures will protect the adjacent watercourse from any sediment (loose soil and debris) that may arise in the event of surface water runoff on-site.
- Silt fencing will be installed along the site boundary to include between the adjacent watercourses and the main site;
- Appropriately sized channels will be installed, as detailed above, to collect and channel all surface water runoff. Appropriately sized gravel check dams will be installed within all sediment management surface water channels to minimise sediment mobilisation. All surface water channels will be directed to an appropriately sized and designed sediment traps;
- Earthworks should not be undertaken during heavy periods of rain;
- Daily inspection and monitoring of sediment management measures and their effectiveness will be undertaken. Maintenance measures will be implemented as required. Waste will be disposed of in accordance with the Waste Hierarchy using licenced contractors

Fuels, Oils, Chemicals, Liquids & Hazardous Materials

- All fuels, oils, chemicals, liquids and hazardous materials will be stored in a designated location with an impervious base and adequately bunded. This area should be located within the construction compound or at an alternative agreed location to secure these materials from possible accidental or intentional damage. This storage location must be located on level ground at least 10 meters from any drain, ditch or possible route of connectivity with the designations. This area must have appropriate signage;
- All material containers will be clearly labelled and stored in resealable containers;
- Bunding must have a minimum capacity of 110% of the volume of the largest tank or 25% of the total storage capacity, whichever is greater. Bunding will be impermeable to the substance being stored;
- Where a Contractor is responsible for materials stored in a bunded area, that Contractor will implement measures for the regular inspection of bunds and emptying of rainwater (when uncontaminated);
- Material storage areas will be at a safe distance from live construction activities;
- All fuels, oils, chemicals, liquids and hazardous materials brought on-site must be accompanied by a Safety Data Sheet (SDS). These products will be stored in accordance with any specific requirements of the SDS;
- A complete register of all SDS's in use on-site will be maintained. Copies of all SDS's will be retained;
- Careful ordering of materials to minimise quantities present on-site;

- Daily inspection and monitoring of fuels, oils, chemicals, liquids and hazardous materials management measures and their effectiveness will be undertaken. Maintenance measures will be implemented as required. Waste will be disposed of in accordance with the Waste Hierarchy using licenced contractors.

Cement, Concrete, Grout & On-Site Washing Facilities

- If concrete is mixed on-site, such activities will be carried out on an impermeable designated area located at least 10 meters from any watercourse or surface water drain to reduce the risk of runoff entering a watercourse;
- Surplus dry concrete, cement and grout will be used elsewhere on-site if possible. Where this is not possible, this material will be disposed of off-site at a suitable disposal facility and transported using a registered waste carrier;
- Excess concrete shall be returned to the batching plant where possible;
- Concrete mixing and delivery lorries shall return to the batching plants for washout;
- All vehicles and equipment used for on-site activities shall be washed out in a designated bunded washout area, specifically designed to contain such wash water. The washout area will be located at least 10 meters away from any watercourse or other elements sensitive to contamination to reduce the risk of runoff entering a watercourse;
- No detergents shall be used in any on-site washdown processes;
- Wash waters will be stored to allow solids to settle out and recirculated to minimise the risk of pollution. Recirculation of wash water will ensure reduced water usage on-site;
- Daily inspection and monitoring of cement, concrete, grout and on-site washing facilities management measures and their effectiveness will be undertaken. Maintenance measures will be implemented as required. Waste will be disposed of in accordance with the Waste Hierarchy using licenced contractors.

Air Quality – Dust Minimisation

- All construction-related traffic will have speed restrictions on unsurfaced roads to 15 kph;
- Any site roads with the potential to give rise to dust will be regularly watered, as appropriate, during dry and windy conditions;
- Water misting or sprays will be used as required if particularly dusty activities are necessary during dry or windy conditions;
- The designated public roads outside the site and the main transport routes to the site will be periodically inspected for cleanliness and cleaned as necessary;
- Material handling systems and material storage areas will be designed and laid out to minimise exposure to wind;

- The transport of soils or other material, which has significant potential to generate dust, will be undertaken in tarpaulin-covered vehicles where necessary;
- Daily inspection and monitoring of dust minimisation measures and their effectiveness will be undertaken.

Noise Minimisation

Best Practicable Means (BPM) of noise control will be applied during construction works to minimise noise (including vibration) at neighbouring residential properties and other sensitive receptors arising from construction activities.

The general principles of noise management are given below:

Control at source:

- Equipment – noise emissions limits for equipment brought to site;
- Equipment – method of directly controlling noise e.g. by retrofitting controls to plant and machinery;
- Equipment - indirect method of controlling noise e.g. acoustic screens;
- Equipment - indirect method of controlling noise e.g. benefits and practicality of using alternative construction methodology to achieve the objective e.g. vibratory piling techniques or hydrodemolition as opposed to more conventional but noisier techniques; selection of quieter tools/machines; application of quieter processes.

Control across the site by:

- Administrative and legislative control;
- Control of working hours;
- Control of delivery areas and times;
- Careful choice of compound location;
- Physically screening site;
- Control of noise via Contract specification of limits;
- Noise Monitoring, to check compliance with noise level limits, cessation of works until an alternative method is found;

- Many of the activities which generate noise can be mitigated to some degree by careful operation of machinery and use of tools.

Ecological Clerk of Works

Due to the sensitive nature of the site. The CEMP will include for the provision of an Ecological Clerk of Works (ECoW) for the duration of the construction phase, as required.

- An Ecological Clerk of Works (ECoW) will be appointed as part of the construction process;
- The ECoW will be an experienced ecologist and shall have the authority to stop or delay the works if necessary, should there be an ecological issue;
- The ECoW will carry out weekly monitoring visits at a minimum;
- The ECoW may appoint an appropriately qualified deputy to carry out monitoring visits;
- There will be clear point of contact within the project team for the ECOW so that issues can be easily raised, and any urgent problems on the ground can be communicated to the works team;
- The ECoW will be 'on call' to deal with any ecological issues as they arise.

Appendix B - Invasive Species Management Plan

An Invasive Species Management Plan should be developed for the site and utilised by the appointed contractor prior to construction activities for the management of Giant Hogweed. An ecological clerk of works may be required to oversee the excavation in order to ensure that all contaminated soils are removed, where required. Recommended management options for Winter Heliotrope and Buddleia are outlined in the Ecological Appraisal produced by AVRIO, associated with this development.

The Invasive Species Management Plan should include at minimum:

Invasive Species Management Plan & Reporting Requirements:

A management plan should cover the whole of a property (not just those areas with a Giant Hogweed infestation) and, if necessary, adjacent land and/or watercourses. The plan should include:

- The objectives of the management;
- An evaluation of control options (if applicable);
- A detailed description of the control actions to be taken;
- An assessment of the risks associated with any control action;
- A description of how the success of the control action will be evaluated;
- Advice on how to prevent spread around and off site (biosecurity measures);
- Advice on how to prevent additional Giant Hogweed arriving on-site;
- A treatment schedule;
- A full breakdown of the costs associated with the control action;

Update Report Requirements:

Where work or monitoring is ongoing over an extended timeframe, reports should be provided periodically, e.g. at the end of each year. Update reports should include:

- An assessment of the effectiveness of control action to date;
- The location and extent of any Giant Hogweed found beyond the distribution determined during site assessment;
- An assessment of any new/changed site features that might impact on the effectiveness of the management plan or increase the risk of spread or re-infestation.
- A description of any newly identified Giant Hogweed in the local/wider environment and an assessment as to any risk.

Completion Report & Certificate Requirements:

Once control action has been completed successfully, as determined by the criteria outlined in the management plan, a final report should be provided that includes:

- An outline of all control action that was carried out.
- A completion certificate that confirms that the treatment is complete and that the Giant Hogweed at the site has been remediated.

Appendix C - Sustainable Drainage Systems

Sustainable drainage is a broad term centred on clear objectives related to both volumetric and quality control on storm runoff and the promotion of habitat diversity. The objectives are:

- Volumetric
  - Reduce runoff rate and reduce risk of flooding
  - Reduce additional runoff volumes and frequencies resulting from paved surface
  - Promote natural groundwater recharge minimising impacts on surface water bodies
- Quality
  - Minimise impact on groundwater aquifers through treatment and filtration
  - Reduce pollutant concentration in discharge
  - Control and containment of accidental spills
- Promote habitat diversity

Paving in a rural area will result in a larger volume of runoff and a higher discharge peak rate. There is also a lesser volume of base flow to rivers and streams, thereby reducing flow rates in such water bodies. By adopting the above SuDS objectives, these effects are minimised through mimicking the greenfield site conditions, i.e. conditions prior to development.

The volumetric and qualitative effects of paving (CIRIA C697 2007) can be summarised as follows:

- Changes to streamflow
  - Increase in runoff volumes
  - Increase in peak rummcfnoff rates
  - Flooding
- Changes to stream morphology
  - Stream widening
  - Erosion
  - Loss of riparian habitat

- Channel bed profile

- Water Quality impacts
  - Loss of pool riffle structure
  - Impacts on aquatic diversity (dissolved and particulate phase)
  - Siltation
  - Reduce O2
  - Base metals (lead, zinc, copper, nickel, chromium, cadmium) and PAHs
  - De-icing salt – normally rock salt and grit but also cyanide, phosphates as anti-caking and corrosion inhibitors, heavy metals, urea and ethylene glycol.

Examples of SuDs:

- Rainwater harvesting systems can collect rainwater from roofs and other paved surfaces for use on-site.
- Green roofs, where a planted soil layer is constructed on a roof to create a living surface, can reduce surface runoff.
- Pervious pavements provide a hard surface that can be used for pedestrians or vehicles while allowing rainwater to pass through to the soil or underground storage.
- Bioretention systems (including rain gardens) collect runoff, allowing it to pond temporarily on the surface before filtering through vegetation and underlying soils.
- Trees capture rainwater and provide evapotranspiration, biodiversity and shade.
- Swales, detention basins, ponds and wetlands slow the flow of water, store and treat runoff while draining it through the site and encouraging biodiversity.
- Soakaways and infiltration basins promote infiltration as an effective means of controlling runoff and supporting groundwater recharge.
- **Controlled flow-limiting attenuated surface water to greenfield runoff rates to align on-site drainage with natural greenfield water processes.**

For more information on SuD's, please refer to CIRIA C753 – The SuDS Manual – London, 2015

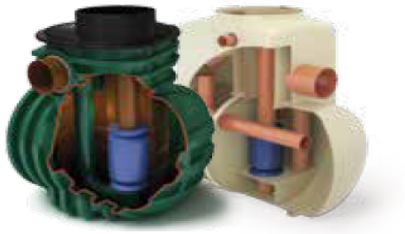
Recommended SuD's, as detailed above, include but are not limited to appropriately scaled attenuation and hydrobreak. Installations of appropriately scaled equipment will ensure green field runoff rates.

Appendix D – Class 1 Interceptor or Suitable Alternative Examples

A suitably sized Class 1 oil separator/interceptor. This Class 1 system should be designed to achieve a discharge concentration of Less than 5mg/l. An example of such a system is Kingspan NSB Range, as detailed below.

Klargester Bypass Separators

NSB RANGE



Concentration Less Than 5 MG/L

Bypass separators are used when it is considered an acceptable risk to not provide full treatment for very high flows, such as where the risk of a large spillage and heavy rainfall occurring at the same time is small. Typical applications include surface carparks, roadways and lightly contaminated commercial areas.

Product Benefits

- Light and easy to install.
- Inclusive of silt storage volume.
- Fitted inlet/outlet connectors.
- Vent points within necks.
- Oil alarm system available (required by EN 858-1 and PPG3).
- Extension access shafts for deep inverts.
- Maintenance from ground level.
- GRP or polyethylene construction (subject to model).

Performance & Compliance

- Fully compliant and tested to EN 858-1.
- Bypass separators are tested by British standards institute (BSI).
- Certified flow and process performance assessing effluent qualities to the requirements of EN 858-1.
- The unit is designed to treat the 'first flush' - 10% of peak flow. The calculated drainage areas served by each separator are indicated according to the formula given by PPG3 NSB = 0.0018A(m2).
- Class I separators are designed to achieve a concentration of less than 5mg per litre.

Appendix E – On-site Wastewater Treatment System

A suitably sized on-site wastewater treatment system should be installed where connection to the public sewer system is not possible. This on-site wastewater treatment system should be large enough to cater for the proposed development. It is recommended that any sewage treatment system which will service the development is fit for purpose and has the ability to accept the required volumes of waste. Any outflow should be treated within the system to ensure that polluted water does not enter the downstream environments. A management contract should be drawn up with a wastewater treatment management company to ensure the appropriate management of the system. The sewage treatment system should be regularly serviced and de-sludged in accordance with manufacturers guidelines to ensure it is operating sufficiently at all times.

An example of such a system is the WCS Environmental Engineering's, HiPAF® midi and modular that caters for developments from 60 up to 2,000 population equivalent (PE) as detailed below.

Three-stage system for safer processing

Each WPL HiPAF treatment plant includes a three-stage process - primary settlement, biological treatment (biozone) and final settlement. The segmented biozone process chambers in stage two eliminate the risk of process short-cuts and mitigates risks associated with variable loads.

Stage 1

Primary settlement

- Incoming wastewater enters the primary settlement stage where organic and inorganic matter settles
- The sludge is held in this section until it requires de-sludging
- A unique forward-feed arrangement uses an airlift to deposit wastewater into the biological treatment stage (biozone), which keeps peak flows from entering the system and prevents hydraulic surges

Stage 2

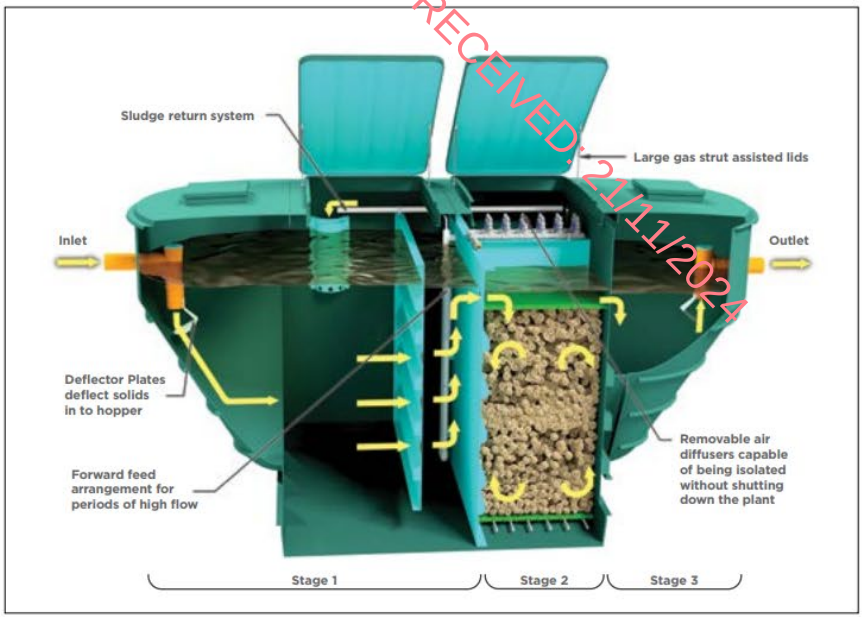
Biological treatment

- Settled liquor enters the biological section either by displacement or via the airlift
- High-voidage plastic media, contained between two floors within the biozone, encourages the growth of bacteria and other organisms which treat the wastewater
- Air required for the treatment process is delivered by air-blowers housed in a weatherproof kiosk
- The air also helps to scour the media bed, preventing the filter from blocking
- A series of diffusers installed beneath the media bed ensure an even distribution of air

Stage 3

Final settlement

- The treated wastewater (final effluent) enters the final settlement section
- Dead biomass (humus sludge) from the process settles out
- An airlift automatically transfers settled humus sludge back to the primary settlement section for co-settlement
- The final effluent is discharged through gravity displacement to either a watercourse or a sub-surface irrigation field



WPL HiPAF midi packaged sewage treatment plant illustration (above)

Internal Configuration

The internal sections of the plant can be accessed from the top of the unit to make servicing, maintenance and de-sludging easier. Plants are fitted-as-standard with large, stainless steel, gas strut assisted lids to give full access to the relevant parts of the plant.

Air is introduced to the WPL HiPAF unit by a series of air diffusers. Each diffuser is capable of being isolated and removed individually without the need to shut down the plant or affect air supply to the rest of the unit.

The complete absence of mechanical and electrical components within the hostile environment provides safe and clean working conditions on site.

Internal air diffusers (left) and large gas strut lids (right)

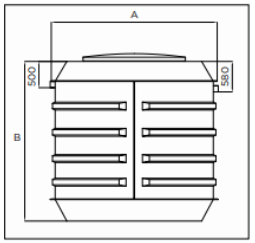
Technical Specification

Use the tables below as an indicative guide to selecting the right packaged treatment plant for your site. For advice on the modular system or more information on the range please contact WPL or a qualified contractor.

WPL HiPAF compact system 1 to 60 PE

Model PE	Standard Consent*	A Diameter (m)	B Height (m)	Inlet Invert (mm)	Outlet Invert (mm)
10	20:30:20	2.32	2.64	500	580
20	20:30:20	2.32	2.80	500	580
30	20:30:20	2.61	2.70	500	580
40	20:30:20	2.86	2.70	500	580
50	20:30:20	3.20	3.00	500	580
60	20:30:20	3.20	3.20	500	580

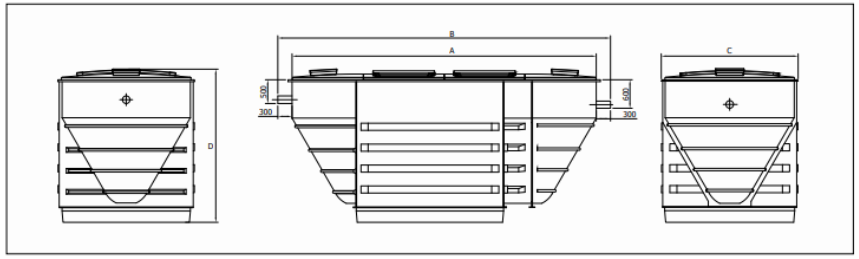
*Typical consent standards shown, tighter consent standards available to meet all requirements specified by the EA



WPL HiPAF midi system 60 to 300 PE

Model PE	Standard Consent**	A Length (m)	B Length w/pipes (m)	C Width (m)	D Height (m)	Inlet Invert (mm)	Outlet Invert (mm)	Weight (Tonne)
70	20:30:20	4.30	4.90	2.88	3.20	500	600	1.60
90	20:30:20	4.80	5.40	2.88	3.20	500	600	1.90
110	20:30:20	5.20	5.80	2.88	3.20	500	600	2.25
130	20:30:20	5.80	6.40	2.88	3.20	500	600	2.50
150	20:30:20	6.40	7.00	2.88	3.20	500	600	2.90
175	20:30:20	7.00	7.60	2.88	3.20	500	600	3.40
200	20:30:20	7.60	8.20	2.88	3.20	500	600	3.90

** Typical consent standards shown – tighter consent standards available to meet all requirements specified by the EA. For options above 200PE please contact WPL.



The tables are an indicative guide only. All applications are specified to comply with the British Water Code of Practice for Flows and Loads. Further technical information can be found on the WPL website, visit www.wplinternational.com.

WPL offers a complete in-house design and specification service. Each packaged treatment plant can be designed to site-specific requirements.

Each system is supplied with an installation manual and an operation and maintenance manual. Civil installation of the units can be arranged through a WPL recommended contractor.

WPL suggests that maintenance should only be undertaken by a reputable service company with British Water accredited service engineers.

Design parameters

Design Criteria	British Water's Flows and Loads 4
Peak flow treatment	Generally 3 dry weather flow
Invert depth	0.5m as standard, other invert depths available up to 1.5m
Discharge standards	The WPL HiPAF will typically attain BOD^5 20mg/l; SS 30mg/l; NH_4-N 20mg/l as standard. With biological treatment, stricter standards can be achieved, meeting BOD^5 10mg/l; SS 10mg/l; NH_4-N 2mg/l (with tertiary treatment). Higher standards are achievable. With the use of additional equipment WPL can produce effluent to meet phosphate standards when required.

Design options

- Inverts up to 1.5m with turret extensions
- Pumped inlet flow control
- Control panels are available to cater for single and three phase electrical supplies
- Alarm beacon for mechanical failure and loss of air pressure
- Duty/standby blowers with automatic changeover to ensure an uninterrupted air supply
- Energy-saving options such as variable speed drive blowers
- GSM telemetry for remote monitoring of the plant
- WPL Sand Filters/WPL Micro-screens can improve final effluent for strict consent requirements

Kiosk Options

Each WPL HiPAF treatment plant comes with a weatherproof kiosk to house the control panel and air blowers on site. The standard issue kiosk, which is acoustically-lined, houses a control panel, which automatically manages the operation of the plant; the air distribution manifold and one or more air blowers as required.

Features include thermostatic cut-off controls and air filtering monitoring which can alert the operator to loss of air pressure. Ten metres of high temperature resistant airline hose is supplied to connect blowers to the treatment plant – extra lengths can be supplied if the kiosk is sited further than 10m from the treatment unit.

Appendix F – Current Site Plan

17 No. CAR PARKING SPACES (including 1 no. accessible space and 1 no. EV)

7 No. CAR PARKING SPACES (including 1 no. accessible space and 3 no. EV)

SHED WALL TO BE DEMOLISHED AND STONED RETAINED FOR REUSE IN LANDSCAPING

EXISTING BOUNDARY WALLS TO BE RETAINED

REFUSE COLLECTION AREA

8 No. CAR PARKING SPACES

RESIDENTIAL PRIVATE ACCESS GATE

LEGEND: DWELLINGS

Unit Type		no. of Beds	Description	Floor Area (m²)	Total units	Total Area (m²)
E1		1	1 storey	50.40	1	50.40
E2		1	1 storey	58.80	1	58.80
A		2	2 storey	73.60	1	73.60
A1		2	2 storey	73.60	1	73.60
B		2	2 storey	88.00	2	176.00
B1		3	3 storey	111.70	2	223.40
B2		3	3 storey	114.90	1	114.90
C		3	2 storey	108.80	4	435.20
C1		3	2 storey	113.20	1	113.20
D		4	3 storey	156.20	3	468.60
D1		5	3 storey	156.20	1	156.20
				TOTAL:	18	1943.90

Housing Mix: 1 Bedroom Units - Provided: 11.2%
2 Bedroom Units - Provided: 22.2%
3 Bedroom Units - Provided: 44.4%
4+ Bedroom Units - Provided: 22.2%

HOSTEL = 419.5m²
Rooms Provided = 13
(circa 29 bed spaces)

RESTAURANT = 292.5m²

LEGEND

- Overall Site Area
- Open Space Zoning
- SAC Boundary
- Public Open Space
- Landscaped External Private Open Space
- Private Open Space
- Home Zone
- Internal Road
- Car Parking Space
- Disabled Car Parking Space
- Electric Vehicle Charging Point
- Bicycle stand
- Passive surveillance

RECEIVED: 21/11/2024

SITE STATISTICS

Site Area (Outlined in RED) = 6,643m²/ 0.66Ha

Plot Ratio: 0.29
Site Coverage: 17.3%
Density:
Required- 20 - 35 Units / Hectare
Provided- 27.2 Units / Hectare

OPEN SPACE
Public:
Required: 15% (996.45m²)
Provided: 28% (1,843.9m²)

Private Open Space for Housing is provided in the form of rear gardens of minimum 11m in depth, where it is possible, in compliance with the recommended areas required by the current Sligo Co. Development Plan 2017-2023.

CAR-PARKING
RESIDENTIAL:
Required: 35 spaces:
2 car parking spaces per house, (32 required)
1.5 car parking space per apartment (3 required)
1 disabled parking space per 10 spaces, (4 required)
1 car parking space equipped with an EV charging point for every 10 parking spaces, (4 required)
HOSTEL:
Required: 3 parking spaces
1 car parking space per 10 beds (3 required)
RESTAURANT:
Required: 51 parking spaces
1 car parking space per 4.5m² of dining area (51 required)
Provided:
39 spaces (Total)
31 Standard Parking Spaces
4 Disabled Parking Spaces
4 EV Charging Parking Spaces

BICYCLE STANDS
Required:
1 per dwelling = 18 bike spaces
Provided:
20 Bike parking spaces

10 No. Bike Parking

7 No. Car Parking Spaces (incl. 2 No. accessible spaces)

EXISTING BOUNDARY WALLS TO BE RETAINED

EXISTING FOOTPATH

EXISTING ON-STREET PARKING

STONE WALL REPURPOSED FROM DEMOLITION OF SHED, TOPPED WITH RAILING TO PROVIDED GUARDING OF PUBLIC WALKWAY

AREA TO BE MAINTAINED FOR BIODIVERSITY.

10 No. BICYCLE PARKING SPACES

ZONING BOUNDARY AS PER BALLYSADRE MINI-PLAN (Sligo Development Plan 2017-2023) SHOWING DIVIDE BETWEEN MIXED USES AND OPEN SPACE ZONING

RESIDENTIAL PRIVATE ACCESS GATE

ACCESSIBLE PUBLIC RIVER WALKWAY

AREA TO BE MAINTAINED FOR BIODIVERSITY.

PUBLIC OPEN SPACE 1844m²

PLAY AND PICNIC AREA

ASSUMED WATER LINE

DRAFT

Rev	Description	By	Date
R1	Planning Application - general layout revisions	PS	28/08/2024

VINCENT HANNON ARCHITECTS
Galway: Suite 4 Cloch Mhile, Dublin Road, Galway, H91 V97E T: 091 483 934
Sligo: 1-3 Abbey Street, Abbeyquarter North, Sligo, F91 X160 T: 071 915 0022
Maynooth: Office 20, Block B Maynooth Business Campus, Kildare T: 071 915 0022
E: info@vha.ie
www.vha.ie

Client: Declan O'Connor
Project: Proposed Mixed Use Development
Main Street, Ballisodare, Co. Sligo
Drawing Description: PROPOSED SITE LAYOUT
Scale: 1:250 @ A1
Status: Planning
Drawing No: 220601-03-104
Rev: R1
Date: August 2024
Drawn by: GMc / PS
Checked by: EMc