FITZSIMONS WALSH ENVIRONMENTAL
SUSTAINABLE SOLUTIONS

Ecological Impact Assessment (EcIA)Report

Proposed Cuan na Loinge road coastal flooding mitigation project.

Project Title: Ecological Impact Assessment Report (EcIA) for Proposed *Cuan na Loinge* road coastal flooding mitigation project.

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Contents

Executive Summary

This Ecological Impact Assessment (EcIA) report has been prepared to assess the potential ecological impacts associated with the proposed road-raising scheme on a 200-metre section of the L-52214 in *Cuan Na Loinge, Ceantar na nOileán*, Co. Galway. The aim of the works is to alleviate frequent coastal flooding, which affects access to seventeen residential properties, while maintaining the current road footprint and hydrological regime. The assessment was conducted in accordance with the CIEEM (2018) guidelines and other relevant Irish and EU legislation and best practice guidance. The study included a detailed desk-based review and multiple ecological field surveys, including habitat mapping, ornithological assessments and otter surveys.

The project is situated adjacent to ecologically sensitive habitats, including Kilkieran Bay and Islands SAC. Notable habitats recorded include saltmarsh (CM), coastal lagoons (CW1), and blanket bog (PB3), some of which qualify as Annex I habitats under the EU Habitats Directive. Protected species observed, or potentially present, in the area include otter (Lutra lutra), common tern (Sterna hirundo) and soprano pipistrelle (Pipistrellus pygmaeus) among others. No otter holts or bat roosts were identified within the zone of influence. No invasive species were recorded on site at the time of survey.

A Natura Impact Statement (presented separately) confirms that, subject to mitigation, the proposed works will not adversely affect the integrity of any Natura 2000 site. Potential construction-related impacts include short-term habitat degradation, sediment runoff, disturbance to fauna (notably otter and birds) and noise impacts. There will be no direct loss of priority habitats.

A suite of mitigation measures is recommended to prevent ecological degradation which include pre-construction surveys for otter and invasive species, the implementation of best practice construction methods to prevent siltation and pollution of adjacent water bodies and strict biosecurity protocols.

Provided that the proposed mitigation measures are implemented in full, the flood mitigation works will not result in significant residual impacts on local, national or European ecological receptors.

1.0 Introduction

It is proposed to undertake road improvement works to alleviate coastal flooding on a 200 metre stretch of the L-52214, including its junctions with two side roads, in Cuan Na Loinge, Ceantar na nOileán, Co. Galway.

This 200m stretch of the L-52214 is frequently inundated by seawater during high tides and storm surges events, impacting the access to up to 17 residences in the area.

The objective of the project is to raise the road level to minimise the impact of coastal flooding, without significantly altering the existing road footprint, road safety, tidal patterns or water flows.

Fitzsimons Walsh Environmental Limited has been appointed to prepare this Ecological Impact Assessment (EcIA) for the proposed development.

The EcIA has been prepared with regard to the Charted Institute of Ecology and Environmental Management (CIEEM) (2018) guidelines; 'Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine'.

The main objectives of the EcIA are:

- To obtain baseline ecological data at the proposed development site
- To assess the potential impacts, including direct, indirect and cumulative impacts which may result from the proposed works during construction and operation
- To recommend mitigation measures as appropriate to avoid and / or reduce impacts to the identified ecological features

The potential impacts of the proposed development on Natura 2000 sites (Special Areas of Conservation and Special Protection Areas) have been evaluated separately in the form of a Natura Impact Statement (submitted separately with the Planning Application documentation).

2.0 Project Description

2.1 Location

The site, located at ITM coordinates (E492947, N729964) on local road L-52214, approximately 4km northeast of Leitir Móir, Co. Galway. The site is bounded by transitional waterbodies to the north and west. The site is bounded by privately owned lands to the south and east. Ref figures 2.1 and 2.2

Figure 2.1 Site Location

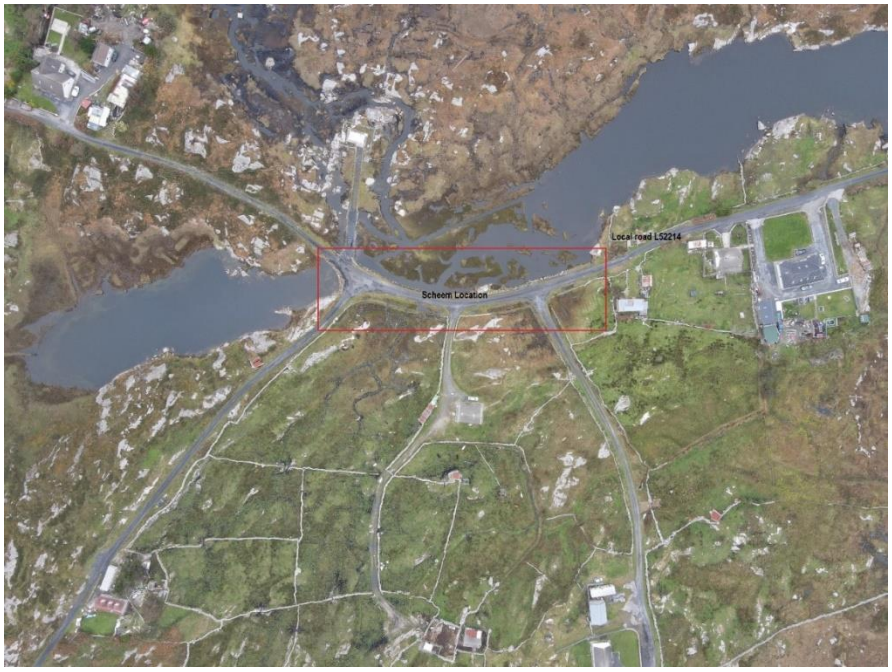

Figure 2.2 Aerial view. March 2025

2.2 The Proposed works

The proposed road improvement project by Galway County Council (hereafter called the Client) is located on a 200m stretch of the L-52214, including its junctions with two side roads in Cuan Na Loinge, Ceantar na nOileán, Co. Galway. This section of the road is frequently inundated by seawater during high tides and storm surges events, impacting the access of up to 17 residences in the area.

The objective of the project is to raise the road level to minimise the impact of coastal flooding, without significantly altering the existing road footprint nor tidal patterns and water flows.

Figure 2.3 Site layout

The flood containment solution includes raising the road level to 3.6mOD, representing a maximum increase of 1.0 metre above the existing level.

A rock-armour embankment with a natural stone roadside wall will be constructed along the route, with a parapet height of 0.8m above the new road surface. The embankment slope is designed at 1:1, and five 450mm diameter culverts with headwalls will be installed to facilitate water flow beneath the road.

Road closure during the works is not feasible as the road provides the only access for the local residents therefore the roadway is to remain online throughout the construction period. It is estimated that the proposed works will take four to six weeks to complete.

Table 2.1 Construction Sequence and Methodology

Phase	Detail
Site Preparation and Traffic Management	➢ Erect temporary traffic signage and barriers in accordance with Chapter 8 of the Traffic Signs Manual. ➢ Install silt fencing and sediment traps around works areas to protect adjacent aquatic features ➢ Identify and mark utilities using a utility survey and Ground Penetrating Radar (GPR) where required.
Culvert Removal and Upgrade	➢ Excavate around existing culverts under controlled conditions. ➢ Remove old culvert sections ➢ Install new precast or HDPE culverts of appropriate hydraulic capacity. ➢ Backfill and compact in 150 mm layers with suitable granular fill (Clause 808 material).
Installation of Precast L-Uprisers	➢ Excavate roadside trenches to accommodate the base slab of the L-shaped concrete uprisers (depth ~500 mm or as per structural specification). ➢ Ensure the base is leveled and compacted to formation level (CBR > 15%). ➢ Place L-uprisers in sequence along the outer road edge, ensuring full contact with the bedding mortar or concrete blinding layer. ➢ Backfill behind uprisers with granular Class 6N or 6F2 material in 150 mm compacted layers.
Road Raising and Layer Construction	➢ Excavate the existing road surface to formation level (depth determined by new road profile). ➢ Construct road build-up using the following layers: ➢ Capping Layer: 600 mm of 6F2 material compacted to 95% MDD ➢ Sub-base Layer: 150–225 mm of Type 1 granular material to Clause 804 ➢ Base Course: 60 mm Dense Bitumen Macadam (DBM) base ➢ Wearing Course: 40 mm Close-Graded Macadam or SMA 10 surface ➢ All layers to be laid using appropriate plant (grader, roller, paver) and tested for compaction and compliance.
Final Works and Restoration	➢ Install roadside verge treatment (e.g., grass seeding or riprap) as appropriate. ➢ Install road markings and cat's eyes if required. ➢ Remove temporary traffic management and demobilise the site. ➢ Conduct post-construction inspection and prepare as-built records.

3.0 Methodology

3.1 Statement of Authority

This report has been prepared by Oliver Fitzsimons BSc and Catherine Howarth BSc.

Mr. Fitzsimons holds a bachelor's degree in Environmental Science and Technology from Atlantic Technological University Sligo. Mr. Fitzsimons has been granted a Master of Science degree in Applied Science by the University of Limerick and a Master of Science degree in geographic information systems from the University of Ulster. Mr. Fitzsimons has 24-years' experience in the field of environmental management and impact assessment and control and has participated in the planning of significant projects across the Island of Ireland including mining, wind energy infrastructure and road infrastructure.

Ms. Howarth BSc, Consultant Ecologist holds a bachelor's degree in Conservation Biology and Ecology from the University of Exeter, a Certificate in Ecological Consultancy from ETUK and a PGCE in secondary science from the University of Chester. Catherine has over 16 years' experience in habitat monitoring and surveying, report writing, science communication and education.

3.2 Legislation, Polices and Guidance

The EcIA has been prepared in accordance with the following legislation and guidelines:

- European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011), as amended. With particular reference to the Third Schedule of the European Communities Regulations 2011 (S.I. No. 477 of 2011) which deals with invasive species;
- The EIA Directive 2011/92/EU, as amended by Directive 2014/52/EU;
- European Union (EU) (Environmental Impact Assessment and Habitats) (No. 2) Regulations 2015 (S.I. No. 320/2015);
- Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora, herein referred to as the Habitats Directive;
- Directive 2009/147/EC of the European Parliament and of the Council of 30 November 2009 on the conservation of wild birds, herein referred to as the Birds Directive;
- The EU Water Framework Directive (2000/60/EC);
- The Wildlife Acts 1976 to 2020 (as amended), herein referred to as the Wildlife Acts;

The potential for effects on nature conservation interests have been assessed, taking into consideration the habitats and species that are likely to be affected by the proposed development. This approach included consideration (as appropriate) of the following guidance documents:

- Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG 2009, February 2010) and the European Communities (Birds and Natural Habitats) Regulations 2011 (DoEHLG 2011)
- CIEEM (2018). Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester;
- EPA (2017). Guidelines on the Information to be Contained in Environmental Impact Assessment Reports. Draft, August 2017;
- Fossitt (2000). A Guide to Habitats in Ireland. The Heritage Council;

3.3 Zone of Influence (ZoI)

The current guidance on ecological assessments (CIEEM, 2018)[1] states that:

"*The 'zone of influence' for a project is the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities. This is likely to extend beyond the project site, for example where there are ecological or hydrological links beyond the site boundaries" and that "The zone of influence will vary for different ecological features depending on their sensitivity to an environmental change*."

The ZoI has been defined with regard to the sensitivity of habitats and species likely to be present / previously recorded in the locality of the proposed development site, areas with connectivity (physical, hydrological or ecological) and potential impacts which may arise from the proposed development.

The scale of the works is small and will be limited to the road improvement works only. The landscape at and in the vicinity of the proposed works is rural in nature as defined by the 2018 CORINE landcover dataset, is classified as 'Inland Wetlands (Peat bog). The bedrock of the site is Errisbeg Townland Granite (Megacrystic pink/grey monozogranite). The land is primarily used for low-intensity agriculture, such as sheep grazing, and contains extensive areas of blanket bog and heathland. The proposed development intersects and lies adjacent to hydrologically sensitive features including Loch Fhada Upper Pools, Loch Fhada, and downstream transitional waters leading to Camus Bay. The site is classified as having extreme groundwater vulnerability, with a strong surface–groundwater interaction regime. The underlying aquifer is classified as Poor.The River Derrynea emerges from the Loch Fhada Upper Pool system and flows from east to west to Loch an Aibhinn before entering Camus Bay. The river water body status of Derrynea is good.

- **With this in mind the ZOI is the area in the immediate vicinity of the works and the wider downstream surface water network**.

[1] CIEEM, 2018. Guidelines for Ecological Impact Assessment in the UK and Ireland.

3.4 Establishing the Baseline/existing environment

Desktop Study

An ecological desktop study of the proposed development site has been undertaken to inform the assessment. Principal sources of information utilised for the desktop assessment included:

- Existing relevant mapping and databases e.g. species and habitat distribution. (sourced from the EPA), the National Biodiversity Data Centre [NBDC] and the NPWS;
- Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans and Conservation Management Plans
- A review of all NPWS site synopsises for designated sites within the ZoI of the proposed development
- Conservation Status Assessment Reports (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive

Field Surveys

The following Ecological field surveys were carried out:

- Preliminary site visit: 24th October 2024
- Multi-disciplinary walkover survey including Otter survey: 14th February 2025
- Multi-disciplinary walkover and habitat survey 26th May 2025

The aim of the surveys:

- To chronicle existing habitats and species in the environs of the proposed works
- To determine the presence or absence of habitats and species of ecological value/significance, including Annex I habitats and Annex II and IV species, bird species protected under the EU Birds Directive, Wildlife Act species and Flora Protection Order (FPO) plant species.
- To assess the suitability of the habitats within the proposed development site to support protected species.

Ecological receptors were surveyed using methodologies outlined in Guidelines for Ecological Impact Assessment in Ireland (CIEEM, 2018). Habitat mapping was carried out by ecologist Catherine Howarth, using Best Practice Guidance for Habitat Survey and Mapping (Smith. Et.al., 2011).

Habitats within the proposed works site were classified in accordance with Level 3 of A Guide to Habitats in Ireland (Fossitt, 2000). These habitats are denoted in the text along with their habitat code, e.g., the habitat code for improved agricultural grassland is GA1. Species and habitats of interest were recorded. The Kilkieran Bay and Islands SAC (Site code 002111), is adjacent to the site. The Upper pools of Lough Fhada have records of two lagoon specialist floral species (Chaetomorpha linum and Ruppia sp.). The Atlantic and Mediterranean Salt Marsh habitats also support a range of sub communities with typical Salt Marsh species. Any flora species of interest were recorded and mapped.

Birds the site surveys identify species present and inform the need for further surveys such as breeding bird surveys. Prior to starting the survey, record the date, start time, time of sunrise / sunset, temperature (°C), wind (Beaufort scale 0–12), cloud cover (%) and rain (dry, light drizzle). The end time and closing weather conditions (if there has been a substantial change during the survey) should also be recorded. Surveys are better undertaken when there is good visibility, to enable the visual detection of priority species. All species encountered on the site or adjacent land should be reported. The approximate locations of priority species should be plotted on a site map together with behavioural notation where appropriate. Counts of secondary species should be recorded separately and based on the highest number of each species in a distinct location, being careful to avoid repeat counting of individuals. Observations of birds moving high overhead, and not associating with the site itself, should be summarised together with recordings of secondary species or omitted all together. Exceptions should be made for those birds which are priority species which could be associated with habitats present (e.g. golden plover over an arable farmland site).

The invasive species survey season is April to September. The May 2025 survey took account of alien invasive species.

Otter Surveys can be undertaken at any time of year avoiding, where possible, periods following heavy rain. Surveys cover the entire site, paying particular attention to riparian corridors, water body edges and any areas of woodland or scrub.

The survey includes at least 30m beyond the site boundaries up and down stream of riparian corridors and suitable habitat. Further surveys covering a more extensive area may be required if breeding is likely to occur on or surrounding the site.

Key objects- To:

- Establish whether otters have established holts, (active or inactive) or use the area for foraging
- Identify evidence of Otter presence including prey remains, spraints, footprints, slides. Photographic evidence should be included
- Map the area covered identifying the exact location of any holts and other evidence found.

4.0 Baseline Evaluation Criteria

Ecological resources/receptors are evaluated following the NRA (2009) guidelines[2] which set out the importance of the ecological resource/receptor in a geographic context. The information gathered from desk studies and field surveys was used to carry out an EcIA of the proposed development upon the identified ecological receptors on an importance scale

The following geographic frame of reference is used in determining 'value':

- International importance
- National importance
- County importance (or vice-county in the case of plant or insect species)3
- Local importance (higher value)
- Local importance (lower value)

Features identified as being of higher value local importance or greater, are given particular attention in the ecological evaluation as key ecological receptors (KERs) when considering the potential for significant impacts and subsequent requirement for appropriate mitigation.

Table 4.1 Ecological Evaluation Criteria

International Importance

• 'European Site' including Special Area of Conservation (SAC), Site of Community Importance (SCI), Special Protection Area (SPA) or proposed Special Area of Conservation.
• Proposed Special Protection Area (pSPA). Site that fulfills the criteria for designation as a 'European Site' (see Annex III of the Habitats Directive, as amended).
• Features essential to maintaining the coherence of the Natura 2000 Network.
• Site containing 'best examples' of the habitat types listed in Annex I of the Habitats Directive.
• Resident or regularly occurring populations (assessed to be important at the national level) of the following:
  ○ Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive; and/or
  ○ Species of animal and plants listed in Annex II and/or IV of the Habitats Directive.
• Ramsar Site (Convention on Wetlands of International Importance Especially Waterfowl Habitat 1971).
• World Heritage Site (Convention for the Protection of World Cultural & Natural Heritage, 1972).
• Biosphere Reserve (UNESCO Man & The Biosphere Programme).

[2] NRA, 2009. Guidelines for Assessment of Ecological Impacts of National Roads Schemes

- Site hosting significant species populations under the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals, 1979).
- Site hosting significant populations under the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats, 1979).
- Biogenetic Reserve under the Council of Europe.
- European Diploma Site under the Council of Europe.
- Salmonid water designated pursuant to the European Communities (Quality of Salmonid Waters) Regulations, 1988, (S.I. No. 293 of 1988).

National Importance

- Site designated or proposed as a Natural Heritage Area (NHA).
- Statutory Nature Reserve.
- Refuge for Fauna and Flora protected under the Wildlife Acts.
- National Park.
- Undesignated site fulfilling the criteria for designation as a Natural Heritage Area (NHA); Statutory Nature Reserve; Refuge for Fauna and Flora protected under the Wildlife Act; and/or a National Park.
- Resident or regularly occurring populations (assessed to be important at the national level) of the following:
    - Species protected under the Wildlife Acts; and/or
    - Species listed on the relevant Red Data list.
- Site containing 'viable areas' of the habitat types listed in Annex I of the habitats directive.

County Importance

- Area of Special Amenity.
- Area subject to a Tree Preservation Order.
- Area of High Amenity, or equivalent, designated under the County Development Plan.
- Resident or regularly occurring populations (assessed to be important at the County level)10 of the following:
    - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive;
    - Species of animal and plants listed in Annex II and/or IV of the Habitats Directive;
    - Species protected under the Wildlife Acts; and/or
    - Species listed on the relevant Red Data list.
- Site containing area or areas of the habitat types listed in Annex I of the Habitats Directive that do not fulfil the criteria for valuation as of International or National importance.
- County important populations of species, or viable areas of semi-natural habitats or natural heritage features identified in the National or Local BAP,11 if this has been prepared.
- Sites containing semi-natural habitat types with high biodiversity in a county context and a high degree of naturalness, or populations of species that are uncommon within the county.

- Sites containing habitats and species that are rare or are undergoing a decline in quality or extent at a national level.

Local Importance (higher value)

- Locally important populations of priority species or habitats or natural heritage features
- Resident or regularly occurring populations (assessed to be important at the Local level) of the following:
  - Species of bird, listed in Annex I and/or referred to in Article 4(2) of the Birds Directive
  - Species of animal and plants listed in Annex II and/or IV of the Habitats Directive
  - Species protected under the Wildlife Acts; and/or Species listed on the relevant Red Data list.
- Sites containing semi-natural habitat types with high biodiversity in a local context and a high degree of naturalness, or populations of species that are uncommon in the locality; Sites or features containing common or lower value habitats, including naturalised species that are nevertheless essential in maintaining links and ecological corridors between features of higher ecological value.

Local Importance (lower Value)

- Sites containing small areas of semi-natural habitat that are of some local importance for wildlife
- Sites or features containing non-native species that are of some importance in maintaining habitat links

5.0 Existing Environment

The site is located in the townland of Carrowroe West (bounded by the townland of Bealadangan to the north) at Cuan na Loinge.

Cuan na Loinge is a coastal inlet situated within Ceantar na nOileán a Gaeltacht district comprising interconnected islands and peninsulas. The area is characterised by a rugged, low-lying landscape with a mix of granite outcrops, boglands, and small inlets. The terrain is shaped by glacial activity and is interspersed with narrow local roads and dry-stone walls.

Ceantar na nOileán as a whole has approximately 2,000 residents with only 17 residences in the immediate area of the proposed works area. The low population density reflects the rural and dispersed settlement pattern typical of the area. The settlement pattern consists of dispersed rural housing clusters, reflecting traditional landholding.

The landscape at and in the vicinity of the proposed works is rural in nature as defined by the 2018 CORINE landcover dataset, is classified as 'Inland Wetlands (Peat bog). The bedrock of the site is Errisbeg Townland Granite (Megacrystic pink/grey monozogranite).

The land is primarily used for low-intensity agriculture, such as sheep grazing, and contains extensive areas of blanket bog and heathland.

Figure 5.1 Aerial view 2025

5.1 Surface water system and water quality

The proposed site is located within the Galway Bay North Catchment (31), and the Furnace_SC_010 Sub-Catchment (31_). The site is within the Spiddal Groundwater Body and the status of this groundwater body is good. There is extreme groundwater vulnerability, and the site is located on a Poor aquifer.

The proposed development intersects and lies adjacent to hydrologically sensitive features including Loch Fhada Upper Pools, Loch Fhada, and downstream transitional waters leading to Camus Bay. The site is classified as having extreme groundwater vulnerability, with a strong surface–groundwater interaction regime. The underlying aquifer is classified as Poor.

The River Derrynea emerges from the Loch Fhada Upper Pool system and flows from east to west to Loch an Aibhinn before entering Camus Bay. The river water body status of Derrynea is good.

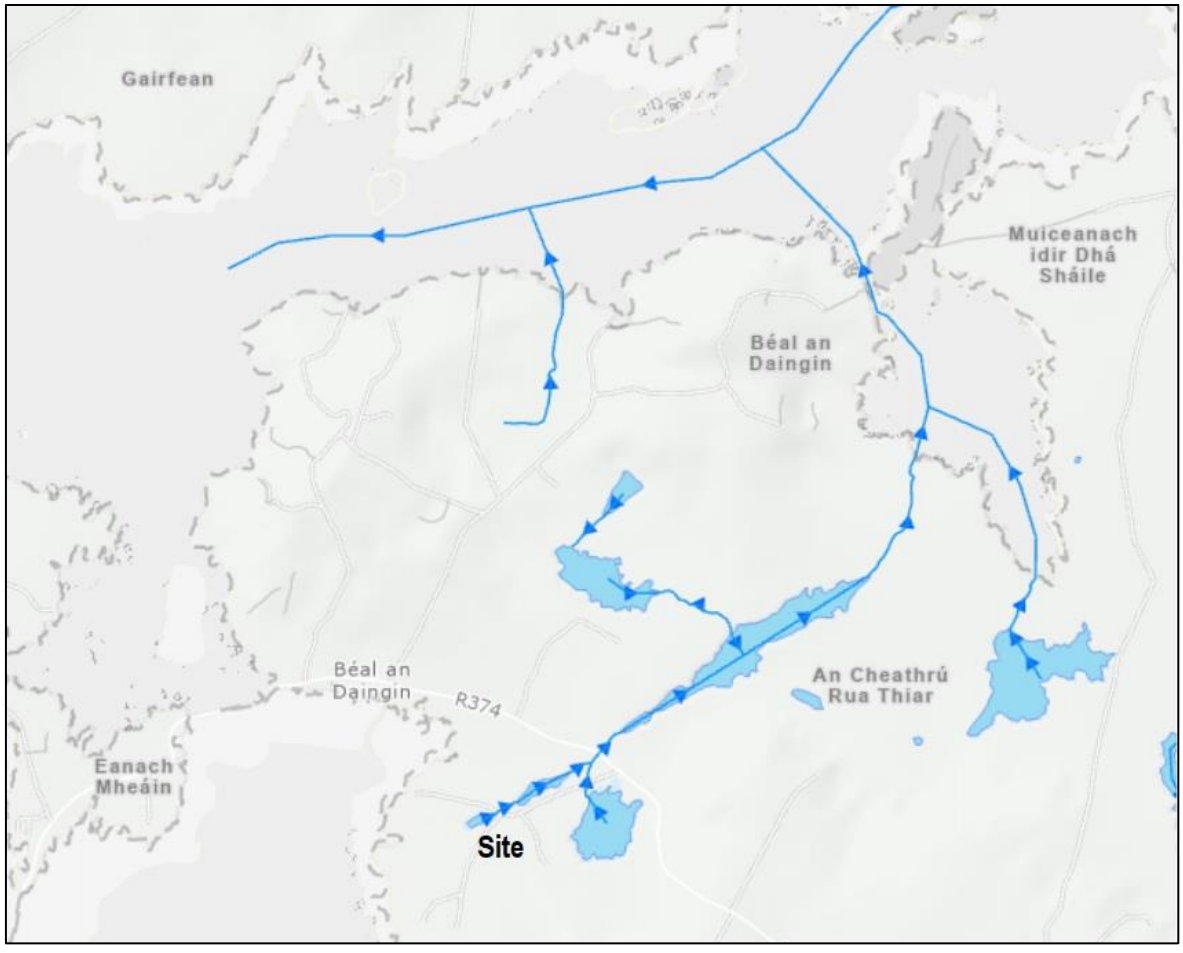

Figure 5.2 Surface water network

5.2 Designated Conservation Sites

Sites of International Importance -Natura 2000 sites.

The "Habitats Directive" (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna) is the main legislative instrument for the protection and conservation of biodiversity within the European Union and lists certain habitats and species that must be protected within wildlife conservation areas, considered to be important at a European as well as at a national level.

- A Special Conservation Area (SAC) is a designation under the Habitats Directive.

The "Birds Directive" (Council Directive 2009/147/EC on the Conservation of Wild Birds) provides for a network of sites in all member states to protect birds at their breeding, feeding, roosting, and wintering areas. This directive identifies species that are rare, in danger of extinction or vulnerable to changes in habitat and which need protection.

- A Special Protection Area (SPA) is a designation under The Birds Directive.

Special Areas of Conservation and Special Protection Areas form a pan-European network of protected sites known as Natura 2000 sites.

The proposed works are within 15km of two SACs and two SPAs that have been designated under the EU Habitats Directive and the EU Birds Directive. Maps and aerial photographs showing the locations of Natura 2000 sites relative to the application site are shown in Figure 5.3 and listed in table 5.1.

A detailed Article 6(3) Appropriate Assessment and Natura Impact Statement (NIS)[3] has been completed for the proposed works.

[3] FWE,2025. Natura Impact Statement to inform Appropriate Assessment. Cuan na Loinge Road – Coastal Flooding Mitigation

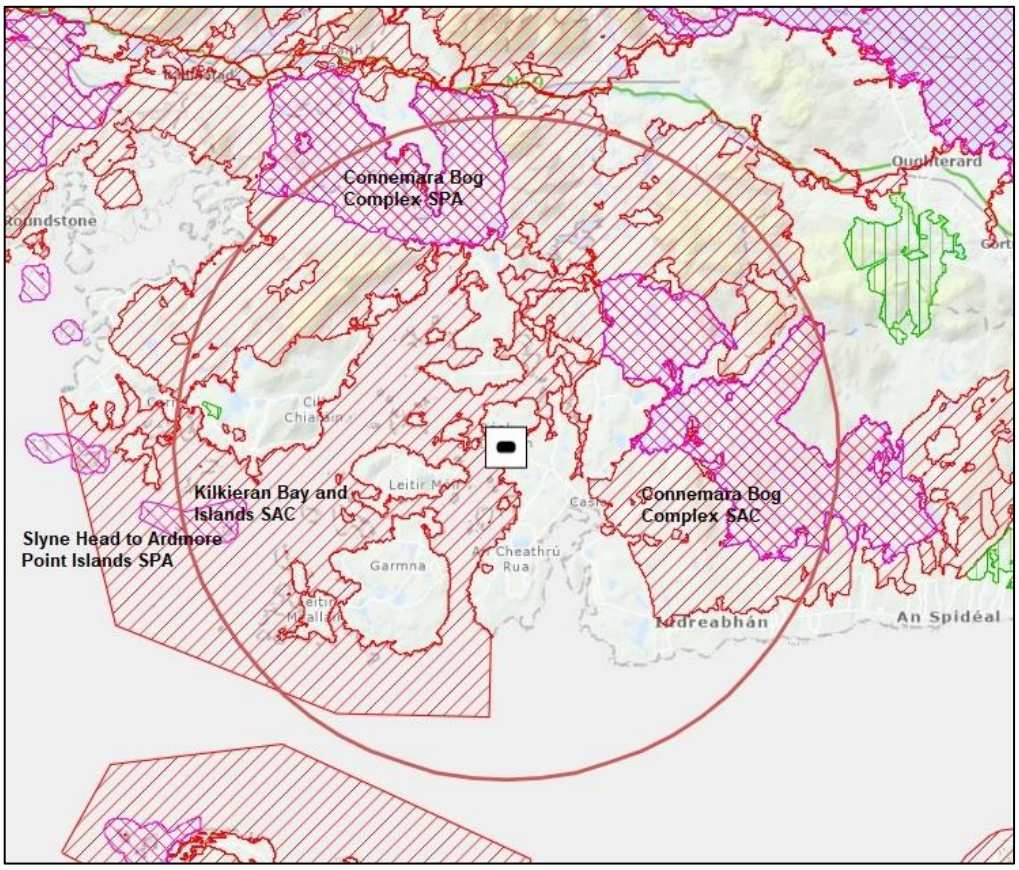

Figure 5.3 Natura 2000 sites within 15m radius of the project site.

Table 5.1 Natura 2000 sites within 15km radius of proposal site

Site Name	Code	Designation	Proximity
Kilkieran Bay and Islands SAC	002111	SAC	Immediately adjacent the site to the north and east
Connemara Bog Complex SAC	002034	SAC	3.93 km
Connemara Bog Complex SPA	004181	SPA	5.65km
Slyne Head to Ardmore Point Islands SPA	004159	SPA	11.97km

Sites of National Importance

Natural Heritage Areas (NHAs) are designated under the Wildlife (Amendment) Act of 2000 and cover areas of unique natural beauty, significant biodiversity, and important habitats. These areas are recognised for their flora, fauna, and distinct landscapes, and many also hold cultural and historical value, often reflecting Ireland's rich archaeological and geological history.

Once designated, NHAs receive legal protection (Under the Wildlife Acts) to preserve their ecological integrity.

In addition to the designated National Heritage Areas (NHAs), Ireland has a number of proposed NHAs (pNHAs). These sites have been identified by the National Parks and Wildlife Service (NPWS) as areas of significant ecological, geological, or cultural value, but they have not yet received full legal protection under the Wildlife (Amendment) Act. Many of these proposed sites are in the process of being reviewed for potential designation, but in the meantime, they benefit from a level of recognition and informal protection.

There are no NHAs within 15km of the site however there are 7 pNHA as detailed in table 5.2

Table 5.2 Proposed National Heritage Area (pNHA)

Site Name	Site Code	Proximity to the pNHA site.
Kinvarra Saltmarsh	002075	c.2 km east
Oilean Na Ngeabhrog	000314	c 2.5km Southwest
Geabhrog Island	000269	c.3.5km west
Connemara Bog	002034	c.6km east
Ardmore Point	001126	c.11 km west
Finish Island Machair	001266	c.13 km west
Inishmuskerry	001974	c.14.5 km west

5.3 Records of Protected Species and Habitats

A review of previously recorded protected fauna and flora and invasive species within the study area has been undertaken and is summarised hereunder.

National Biodiversity Data Centre Data

A search of the NBDC database was carried out to identify protected flora and fauna and species listed under the Third Schedule of the Birds and Natural Habitats Regulations (2011). Two areas were included [2km grid squares L92J and L93F] which encompass the proposed development site. See table 5.3

Table 5.3 Previous Records of Protected Fauna and Flora Species recorded

Species name	Designation
Common Frog (Rana temporaria)	Protected Species: EU Habitats Directive Annex V. Protected Species: Wildlife Acts
European Otter (Lutra lutra)	Annex II , Annex IV Wildlife Acts
Common Kestrel (Falco tinnunculus)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Common Kestrel (Falco tinnunculus)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Common Linnet (Carduelis cannabina)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Common Sandpiper (Actitis hypoleucos)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Common Snipe (Gallinago gallinago)	Protected Species: Wildlife Acts, Protected Species: EU Birds Directive ; Annex II, Section I. Protected Species: EU Birds Directive Annex III, Section III Bird Species . Birds of Conservation Concern - Amber List
Common Starling (Sturnus vulgaris)	Protected Species: Wildlife Acts . Birds of Conservation Concern - Amber List
Common Tern (Sterna hirundo)	Protected Species: Wildlife Acts. Protected Species: EU Birds Directive Annex I. Birds of Conservation Concern - Amber List
Common Wood Pigeon (Columba palumbus)	Protected Species: Wildlife Acts. Protected Species: EU Birds Directive Annex II, Section I EU Birds Directive Annex III, Section I
European Eel (Anguilla anguilla)	Threatened Species: Critically Endangered
Great Cormorant (Phalacrocorax carbo)	Protected Species: Wildlife Acts . Birds of Conservation Concern - Amber List
House Sparrow (Passer domesticus)	Protected Species: Wildlife Acts . Birds of Conservation Concern - Amber List
Lesser Noctule (Nyctalus leisleri)	Protected Species: EU Habitats Directive || Protected Species: EU Habitats Directive >> Annex IV || Protected Species: Wildlife Acts

Species name	Designation
Little Grebe (Tachybaptus ruficollis)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Mallard (Anas platyrhynchos)	Protected Species: Wildlife Acts. Protected Species EU Birds Directive Annex II, Section I, Protected Species: EU Birds Directive Annex III, Section I
Mew Gull (Larus canus)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Mute Swan (Cygnus olor)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Northern Wheatear (Oenanthe oenanthe)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Sky Lark (Alauda arvensis)	Protected Species: Wildlife Acts. Birds of Conservation Concern - Amber List
Soprano Pipistrelle (Pipistrellus pygmaeus)	Protected Species Wildlife Acts, EU Habitats Directive Annex IV
Ventrosia ventrosa	Threatened Species: Vulnerable
West European Hedgehog (Erinaceus europaeus)	Protected Species: Wildlife Acts

Note: *Only bird species protected by the EU Birds Directive or species listed as either Red or Amber under the Birds of Conservation Concern have been listed.*

National Biodiversity Data Centre Bat Landscapes Tool

A search of the NBDC database was carried out to examine the suitability of the proposed site for bat species found in Ireland. The Bat suitability index from the NBDC ranges from 0 to 100, with 0 showing least favourable conditions and 100 most favourable for bats. The results of the search and bat species associations with building roosts are shown in Table 5.4.

Table 5.4 NBDC bat suitability index data and bat roost associations.

Species	Common Name	Bat Suitability Index
All Bats		24.56
Pipistrellus pygmaeus	Soprano Pipistrelle	49
Plecotus auritus	Brown Long-Eared Bat	36
Pipistrellus pipistrellus	Common Pipistrelle	34
Rhinolophus hipposideros	Lesser Horseshoe Bat	11
Nyctalus leisleri	Leisler's Bat	35
Myotis mystacinus	Natterer's Bat	3
Myotis daubentonii	Daubenton's Bat	29
Pipistrellus nathusii	Nathusius's Pipistrelle	2
Myotis nattereri	Natterer's Bat	22

5.4 Field Surveys

5.4.1 Habitats

Habitats within the application site were classified in accordance with Level 3 of A Guide to Habitats in Ireland (Fossitt, 2000). These habitats are denoted in the text along with their habitat code, e.g., the habitat code for improved agricultural grassland is GA1.

The landscape of this area is quite low-lying and dominated by patches of blanket bog, heath and outcropping rock with associated scrub, small pools and lakes and transitional habitats such as wet grassland. Blanket bog has been inundated by the tide and a complicated mosaic of saltmarsh habitat, cutover blanket bog, pools, scrub and exposed rock has developed that is related to the local topography.

The main habitats on and surrounding the works site are:

- 'Buildings and Artificial Surfaces' (BL3),
- Salt Marsh (CM),
- Lagoons and Saline Lakes (CW1)
- With some smaller areas of
- Lowland Blanket Bog (PB3),
- Wet Grassland (GS4) and
- Exposed Siliceous Rock (ER1).

Two Annex I saltmarsh habitats are present at this site, Atlantic salt meadows (ASM) and Mediterranean salt meadows (MSM).

- The site has also been modified by the construction of a radio mast. Part of the saltmarsh and blanket bog has been infilled to create a foundation and access causeway to the mast across a channel. The construction of an access road, which crosses a low embankment across some low-lying areas, has also modified the structure of the original saltmarsh, including drainage and tidal inundation into several of the small pools around the site.
- The overall conservation status is unfavourable-bad due to severe overgrazing by sheep in places.

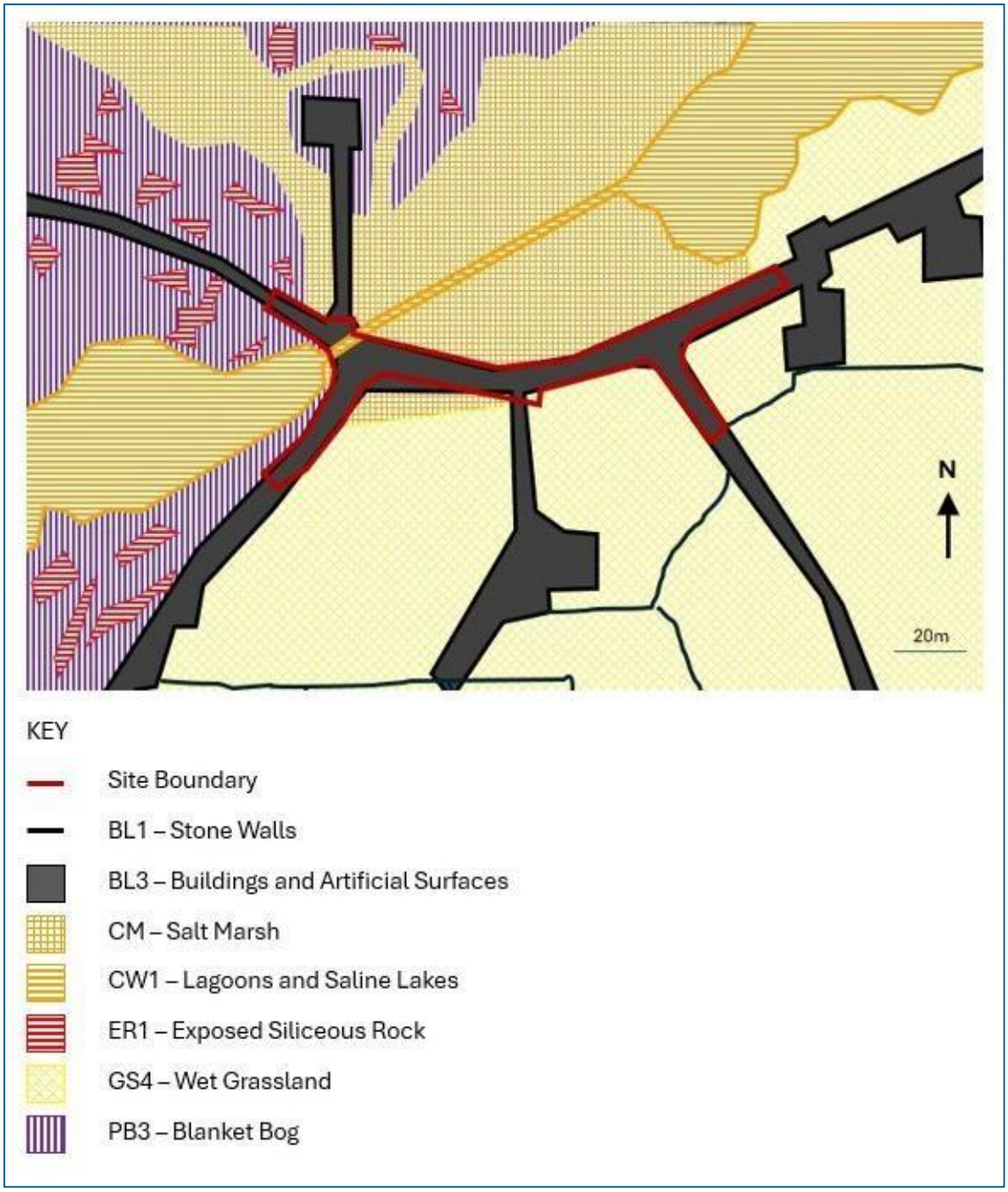

Figure 5.4 Habitat Map with Fossitt codes and description.

Photographs and descriptions of each habitat are presented below

Buildings and Artificial Surfaces (BL3)

Local tertiary road (L-52214), junctions with two side roads and residential buildings and associated sheds (BL3).

Salt Marsh (CM) : Salt marshes habitats, characterised by the presence of salt-tolerant plants, play a key role in flood control, nutrient cycling, and supporting a variety of bird species.

The saltmarsh is a typical 'fringe' type site. Most of the saltmarsh is in the basin between the main regional road to Lettermore Island (R374) and the L-52214.

Coastal Lagoons and Saline Lakes (CW1): Coastal lagoons and saline lakes are shallow water bodies influenced by marine water, typically having a brackish or saline nature. These habitats support unique flora and fauna, often providing breeding grounds for fish and invertebrates.

The two Lough Fhada upper pools are adjacent to the site. They have been classified as 'Saltmarsh' lagoons, which are more like large deep pools in saltmarsh (NPWS 2007).

Wet Grassland (GS4): Wet grasslands are low-lying areas, often found in floodplains or near wetlands, where the soil remains waterlogged for much of the year. They support a variety of grass species and are important for breeding waders and other wetland wildlife.
To the south of the road L-52214, there are fields of wet grassland with stone wall and post and wire fence boundaries.

Lowland Blanket Bog (PB3) and Exposed Siliceous Rock (ER1)

To the west and northwest are areas of blanket bog with protrusions of exposed granite bedrock.

5.4.2 Flora

The following floral species were observed and recorded in the surrounding habitat:

- Birds -foot trefoil (*Lotus corniculatus*)
- Bramble spp. (*Rubus fructicosus*)
- Buck's-horn Plantain (*Plantago coronopus*)
- Carnation Sedge (*Carex panicea*)
- Common Reed (*Phragmites australis*)
- Common Saltmarsh-grass (*Puccinellia martima*),
- Common Scurvy-grass (*Cochlearia officinalis*)
- Creeping Bent (*Agrostis stolonifera*)
- Glasswort (*Salicornia sp*.)
- Grey Sea-rush (*Schoenoplectus lacustris spp. tabernaemontani*)
- Long-bracted Sedge (*Carex extensa*)
- Purple-Moor-grass (*Molinia caerulea*),
- Red Fescue (*Festuca rubra*)
- Saltmarsh Rush (*Juncus gerardii*)
- Sea Arrowgrass (*Triglochin maritimum*)
- Sea Club-rush (*Bolboschoenus maritimus*)
- Sea Milkwort (*Glaux maritima*),
- Sea Pink (*Armeria maritima*)
- Sea Plantain (*Plantago maritima*)
- Sea Rush (*Juncus maritimus*)
- Silverweed (*Potentilla anserina*),
- Spike-Rush (*Eleocharis sp*.)
- Tormentil (*Potentilla erecta*)
- White Clover (*Trifolium repens*)

Birds

During the walkover survey 6 species of bird were observed using the habitat surrounding the site and flying overhead. Swan faeces were found on the grassed area of the saltmarsh.

- Common Tern (*Sterna hirundo*)
- Cormorant (*Phalacrocorax carbo*)
- Mallard (*Anas platyrhynchos*)
- Mute Swan (*Cygnus olor*)
- Common Gull (*Larus canus*)
- Common Starling (*Sturnus vulgaris*)
- Common Linnet (*Carduelis cannabina*)

Invasive Species

No invasive species were recorded on the site visit carried out in May 2025.

5.5 Otter

The Otter survey was undertaken along the roadside and 30m surrounding the site. There were no definitive sights for Otter, such as spraints, tracks, holt, or couch sites. The surrounding habitat is suitable for Otter and they are know to occur.

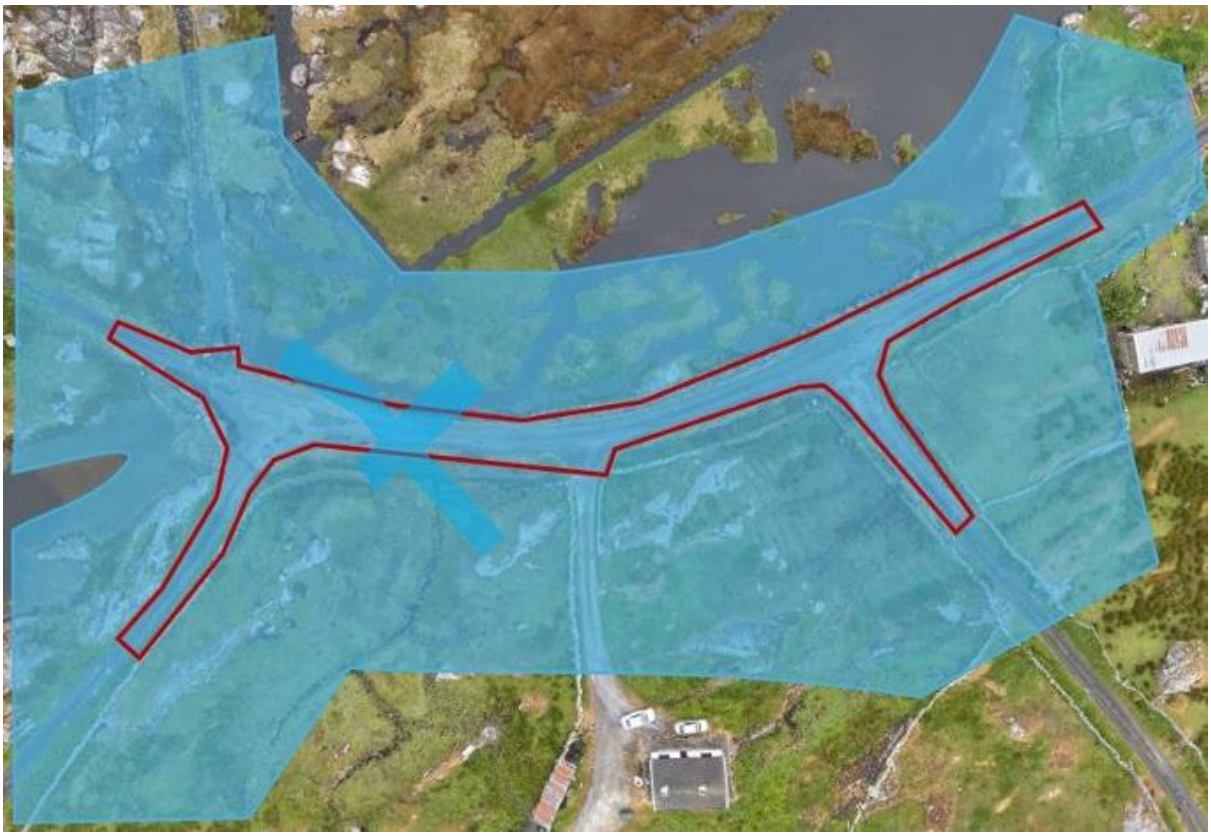

Figure 5.5 Otter survey area covered in blue, proposed road works site in red.

5.6 Ecological Evaluation

Ecological resources/receptors are evaluated based on the importance of the ecological resource/receptor in a geographic context.

The following geographic frame of reference is used when determining value:

- International importance
- National importance
- County importance (or vice-county in the case of plant or insect species)3
- Local importance (higher value)
- Local importance (lower value)

Table 5.5 Ecological resource/receptor in a geographic context

International
There are four European sites (two SACs and two SPAs) located within 15km of the proposed works site. Appropriate Assessment has identified only one, i.e. Kilkieran Bay and Islands SAC as potentially vulnerable to the proposed development. Two Annex I saltmarsh habitats are present at this site, Atlantic salt meadows (ASM) and Mediterranean salt meadows (MSM).
National
There are no NHAs within 15km of the site however there are seven pNHA. The following habitats are considered of national importance: Salt Marsh (CM), Lagoons and Saline Lakes (CW1), Lowland Blanket Bog (PB3)
County
Wet Grassland (GS4). Relatively common at a national level. Wet grasslands are important for species such as wading birds and invertebrates.
Local importance (higher value)
Exposed Siliceous Rock (ER1). While not particularly rare, these habitats are distinctive in the local context, supporting specialised flora such as mosses and lichens; important for local biodiversity.
Local importance (lower Value)
Buildings and Artificial Surfaces (BL3). May be seen more important from a cultural heritage point of view. The area is characterised by the traditional stone walls and cottages which contribute to the cultural landscape.

6.0 Impact Assessment

6.1 Designated Sites

The natura Impact Statement (NIS)[4] undertaken for the proposed development, concludes that that there will be no adverse impact on the integrity of any of relevant Natura 2000 sites, providing all the mitigation/preventative measures outlined are implemented. Consequently, there will be no risk of adverse effects on Qualifying Interest habitats or species, nor the attainment of specific conservation objectives, either alone or in-combination with other plans or projects, for the relevant Natura 2000 sites. The ecological integrity of the Natura 2000 sites concerned (connected with qualifying interests for which the sites have been designated) will not be significantly impacted.

The works are unlikely to give rise to any significant negative effects on any designated site due to the separation distance and weak hydrological linkage between the development site and the only potentially affected designated site i.e. The Kilkieran Bay and Islands SAC.

The NIS detail necessary mitigation measures to avoid any detrimental impact on surface waters.

6.2 Potential Construction Phase Impacts

6.2.1 Habitat Loss

Direct loss of habitat is caused where there is complete removal of a habitat type. Habitat loss can also occur through the reduction of habitat quality and a loss of important habitat functions. The release and re-settling of suspended solids in a watercourse has the potential to indirectly affect instream habitat quality as it could modify the substrate composition of a riverbed or downstream instream habitats.

- The proposed development will not result in the loss of any habitat

[4] FWE, 2025. Natura Impact Statement to inform Appropriate assessment

6.2.2 Habitat Degradation

The proposed works, though small scale will involve excavation close to water. Ther is potential for runoff of sediment and/or construction pollution during the works.

During the construction phase there is also the potential for spills and leaks of oils, fuels and chemicals from storage areas or plant and equipment to impact on the surrounding habitats.

Accidental spills of fuels, oils and construction materials (e.g. concrete), if not appropriately managed, can affect habitat quality through deposition of materials in the environment.

6.2.3 Invasive Plant Species

Construction works that do not implement appropriate biosecurity measures have the potential to spread this species to other locations. Invasive species that spread through fragmentation can quickly spread further downstream using the river as a pathway and colonise habitats and out compete natural species at a faster rate.

6.2.4 Impacts on Fauna

Otter

The Otter survey was undertaken along the roadside and 30m surrounding the site. There were no definitive sights for Otter, such as spraints, tracks, holt, or couch sites. The surrounding habitat is suitable for Otter.

Construction works can result in disturbance impacts to otter to a distance of up to 150m for developments of this nature, as per the NRA guidelines (NRA, 2006).

Disturbance to otter holts during the construction phase could result in a short term, significant negative effect. Otter are crepuscular species, mainly active at dawn and dusk, and are likely to avoid the main construction activity periods.

Badger

No badger setts or evidence of badger activity was recorded within 150m of the proposed development site.

There is potential however that badgers may forage occasionally within the site. The proposed development will result in a loss of a small area of potential foraging habitat for badger.

Construction works can result in the disturbance of badgers breeding sites located within 150m of a construction works site (NRA, 2005). No setts were recorded within 150m of the proposed development site. Considering the waterlogged nature of the habitat

present within the site the potential for new badger setts to establish within the proposed development site is considered unlikely. The disturbance of foraging badgers during the construction works could result in a short-term, slight, negative effect on the local badger population, at a local geographic scale.

Bats

No active bat roosts were confirmed within the proposed development site. No important roost sites will be lost as part of the proposed development.

Other Mammal Species

There is potential that the proposed development site may support other small, protected mammal species. However, similarly considering the availability of higher valuable habitat within the surrounding environment and the lack of evidence of such species within the site, it is considered that the proposed development site is unlikely to support significant numbers of the protected mammals species.

Disturbance

Construction related noise and the physical presence of machinery and construction personnel is likely to result in the disturbance of birds from habitats located in close proximity to the proposed development site.

Given the short-term nature of the construction works (approximately 2 months) disturbance to breeding birds species will be short term. In addition, there is suitable, alternative habitat within the surrounding lands. Therefore, the short-term disturbance / displacement of breeding bird species during the construction phase will not result in a significant negative effect on the local breeding bird population.

Overall, the clearance of vegetation (mainly agricultural grass) within the proposed development site and disturbance associated with the construction works will not result in long-term negative effects on local breeding bird population and will not constitute a significant negative effect at a local to county geographical scale.

7.0 Mitigation

7.1 Pre-construction Survey Requirements

- An Otter Survey should be conducted prior to works commencing to assess the use of the site by Otter and identify any additional mitigation for the protection of this Annex II and Annex IV species.
- An Invasive Species Survey should be conducted prior to works commencing to ensure no schedules species are present and may be spread during the proposed works. Should invasive species be identified an Invasive Species Management Plan will be required to inform the Construction Environmental Management Plan (CEMP).

7.2 Construction Phase Control Measures

To protect Kilkieran Bay and Islands SAC and to avoid any reductions in water quality in the area surrounding the proposed development site, several site-specific mitigation measures have been recommended, and these must be implemented and followed.

The implementation of these measures will ensure the protection of Natura 2000 habitats and species, and the local non-designated ecological receptors. The primary parties responsible for the implementation of these measures include the applicants, the project manager and the construction contractors.

General Good Practice and Initial Works

- Upon appointment of the construction contractor, this team will also be made aware of the sensitivity of the site and the mitigation measures required to protect habitats, groundwater and surface water quality.
- Prior to the commencement of developments on site, the site engineer and the contractors must be made aware of the ecological sensitivity of the site and its proximity and connection to the Kilkieran Bay and Islands SAC. All environmental documentation (EcIA, NIS) will be made available to the contractor.
- The contractor will assume ownership of the preliminary CEMP which will be updated.
- All control and mitigation measures will be undertaken from initial site works until the completion of all construction and demobilisation of the site.
- Site preparation and construction must be confined to the road works site only and it must adhere to all the mitigation measures outlined in this NIS. Work areas should be kept to the minimum area required to carry out the proposed works and the area should be clearly marked out in advance.

The primary ecological risks are those associated with compromising water quality therefore every effort should be made to prevent surface water contamination during the construction works.

To minimise environmental impacts, it is important in the first instance that the following general principles are implemented:

- Implementation of good construction work practices on site.
- Working in accordance with relevant legislation, including that relating to invasive species.
- Contractors should ensure adequate site supervision and security.
- Construction workers should be briefed to ensure that environmental issues are taken into consideration and that guidelines and codes of practice are followed.

The guidelines published by Inland fisheries Ireland on the protection of fisheries during construction works in and adjacent to waters should be referred to when drafting construction procedures/method statements (Refer to www.fisheriesireland.ie/Construction Guidelines). The IFI guidelines identify potential construction related impacts and measures to mitigate them. The guidelines set out requirements specific to bridges and culverts and emphasises the necessity for these structures to be constructed and maintained in a manner that allows unhindered movement of aquatic species.

Mitigation Measures to protect surface water integrity.

Pollution may occur following accidents that result in spillage of fuel or other materials. Pollution prevention measures should be implemented during construction to avoid siltation or discharge of pollutants.

Silt and solids.

- Suspended solids and silt must be controlled by both minimisation of the creation of sediment laden run off and to control suspended solids.
- Concrete should be poured in dry weather, and sealed shuttering should be used to ensure no concrete enters the stream
- Works will be as far as practicable carried out in dry conditions and weather forecasts will be monitored prior to works commencing to avoid working in adverse weather conditions.
- Suitable sized plant and machinery should be chosen to minimise the impact on the bankside and access route to the site.
- Silt fencing should be erected downstream of the works site.
- Excess spoil from the excavations should be excavated off site to a suitably licensed facility. Excess soil should not be stored on site.

Hydrocarbons and other chemicals

The potential for hydrocarbons and other pollutants entering the watercourse and protected habitats during construction must be by both risk minimisation and an appropriate capacity for emergency response:

Discharges of fuels and oils can be directly toxic to aquatic life. Oil films on water can seriously interfere with the diffusion of oxygen from the atmosphere into waters and in extreme cases result in oxygen depletion.

- Refuelling of machinery should be undertaken on a need be basis. Fuel will be delivered to site (not stored). Refuelling should take place at a designated location no less than 50 metres from the river edge.
- An effective spillage procedure must be put in place with all staff properly briefed. Any waste oils or hydraulic fluids shall be collected, stored in appropriate containers and disposed of offsite in an appropriate manner.
- Spill kits with an appropriate capacity for the contaminants used on site and the nature of the site must be kept on site and available throughout the construction process.
- A hydrocarbon oil boom must be available on site for immediate deployment within the river in the event of any hydrocarbon spillage at the site. A fuel spillage will be considered to be any loss of fuel, oil or lubricant, including hydraulic oil and spot leakage.
- Uncured concrete can kill fish, plant life and macroinvertebrates by altering the pH of the water. Pre-cast concrete should be used whenever possible, to eliminate the risk to all forms of aquatic life.
- If cast-in-place concrete is required, all work must be done in the dry and effectively isolated from any flowing water (or water that may enter streams and rivers) for a period sufficient to ensure no leachate from the concrete.
- No direct discharges be made to waters where there is potential for cement or residues in discharges.
- Designated impermeable cement washout areas must be provided.

Further guidance is available in:

- CIRIA Control of Water Pollution from Construction sites – Guidance for Consultants and Contactors (2001).
- NRA Guidelines (2006) NRA Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes.

Management of Waste

- All construction waste must be removed from site by a registered contractor to a registered site. Evidence of the movement and safe disposal of the construction waste must be retained and presented to Local Authority upon request.
- The applicants and construction contractors will be responsible for the safe removal of any construction waste generated on site.
- There must be no disposal of construction waste or topsoil in any designated site.
- Stockpile areas for gravel or other such construction materials will be kept to a minimum size, well away from all waterbodies and watercourses.

Biosecurity

In order to comply with Regulations 49 and 50 of the European Communities (Birds and Natural Habitat) Regulations (2011), the appointed Contractor will ensure biosecurity measures are implemented throughout the construction phase to ensure the introduction and translocation of invasive species is prevented.

The appointed contractor must have a biosecurity statement. The biosecurity statement should take cognizance of:

- The Inland Fisheries guidance document on invasive species and their management; available at: http://www.fisheriesireland.ie/Research/invasive-species.html.
- The IFI Biosecurity Protocols including: 'IFI Biosecurity Protocol for Field Survey Work (December 2010)'.

Biosecurity measures must be strictly adhered to throughout the proposed works. Measures must be in accordance with IFI (2010) Biosecurity Protocol for Field Survey Work. Where staff are working instream, staff footwear and PPE should be inspected on daily completion of the works and vegetation or debris removed.

- All PPE and machines entering the water will be power washed before entry to the site and sprayed with a suitable disinfectant (e.g., 1% virkon aquatic solution or another proprietary disinfection product).
- Visually inspect all equipment that has come in contact with the water for evidence of attached plant or animal material, or adherent mud or debris. This will be carried out before leaving the site.

Temporary diversion of watercourse:

For any watercourse diversion, it is important to avoid unnecessary vegetation clearance, keep damage or construction impacts to a minimum and so avoid sediment pollution from runoff. Site clearance for these works should only commence and be undertaken when works are required, adopting a planned approach to avoid clearing the whole site at once, and leaving exposed ground for long periods of time.

Prior to works commencing, buffer zones around watercourses and protected habitats/species should be established and suitably isolated from works using fences, barriers, screens and signage.
The watercourses should be protected to prevent debris from falling into the water.

Temporary watercourse diversions are one of the most critical environmentally impacting elements of work in waterways, they must be inspected and maintained frequently to remain in effective operating condition.
During construction, it is highly recommended that flow barriers should be inspected at the start and end of each workday and at any time that excess water is noted in dry work areas. This would also require inspections to take place in advance of impending storms or forecasted heavy rainfall events.

Noise

To ensure that impacts on species that might use the habitats close to the site do not arise from the noise generated on site, measures to control noise on site must be undertaken. The construction plant and tools used on-site must comply with the relevant Irish regulations in relation to noise and vibration requirements. It is recommended that all equipment used on site are newer models equipped with noise dampening systems and that the equipment is maintained in good condition and serviced regularly.

Construction noise will be controlled in accordance with the guidance and procedures set out in BS 5228-1:2009+A1:2014 – Code of practice for noise and vibration control on construction and open sites – Part 1: Noise.

Noise control will be implemented through a combination of best practicable means (BPM), including but not limited to:

- Selection of quiet plant and equipment: Prioritising use of equipment with low-noise emissions or fitted with effective silencers, mufflers, or acoustic covers.
- Operation scheduling: Limiting high-noise activities to standard daytime hours (typically 08:00–18:00, Monday to Friday; 08:00–13:00 on Saturdays), with no work on Sundays or public holidays unless otherwise agreed.
- Operator training: Ensuring all operatives are trained in noise reduction practices and adhere to established protocols for switching off equipment when not in use.

Design of culverts

A change in the hydrological conditions of Loch Fhada upper pools may drastically impact the lagoonal specialist species present. The culverts should be designed with the hydrology of the site in mind. The existing water and tidal flow must be allowed to continue to maintain the sensitive ecological aquatic habitats of Kilkieran Bay and Islands SAC.

8.0 Conclusions

The proposed coastal flooding mitigation works at Cuan na Loinge involve the elevation of a 200-metre section of local road L-52214 to address recurrent tidal inundation affecting residential access. This Ecological Impact Assessment has determined that, while the works are located within an ecologically sensitive landscape containing Annex I habitats and species of conservation interest, the scale and nature of the proposed development—combined with appropriate avoidance, mitigation, and control measures—will ensure that no significant adverse effects arise.

No direct loss of priority habitats is anticipated, and potential indirect impacts—such as sedimentation, pollution, and faunal disturbance—can be effectively mitigated through standard best practices and targeted ecological safeguards. The findings of the accompanying Natura Impact Statement support the conclusion that there will be no adverse impact on the integrity of any Natura 2000 site, particularly Kilkieran Bay and Islands SAC.

In conclusion, provided all recommended mitigation measures are fully implemented and enforced during construction, the project will not give rise to significant residual ecological effects at local, national, or international scales. The development is considered compatible with the protection and conservation of the local ecological environment.

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Appendices

Aerila Imagery of the site 2025