Cuan Na Loinge CFM.
Cuan na Loinge, Ceantar na Oiléan, Conamara, Co. Galway.

ACP- Case No. ACP-323024-25.

Habitat Survey Report

March 2026

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Contents

1. Introduction

1.1 Project context:

A local rural road, ref: L-52214 connects the townlands of Béal an Daingin & An Cheathrú Rua Thiar. This section of the road is frequently inundated by seawater. This limits public and domestic access to 17 no. residence's. The access constraint poses a significant health and safety risk to residence to critical emergency services, [Fire and Ambulance Services].

A minor works overlay road improvement project is proposed by Galway County Council on a 200m stretch of the road to raise its elevation locally. The objective of this project is to improve local access while maintaining the existing hydraulic mechanisms.

A planning application was lodged with An Coimisiún Pleanála [ACP] for the project. The ACP has requested that a targeted habitat survey is undertaken within the site boundary, and the areas proximate to the proposed works.

1.2 Project Description

The subject public road is constructed on an existing rock causeway, on elevated lands near the intertidal zone close to a saline lagoon. It was constructed circa 1845. The existing hydraulic connection between the sea and the lagoon is via a series of existing culverts in the causeway. Saline water builds up concurrently on either side of the causeway as the tide rises. It is not proposed to alter the existing culverts hydraulic dynamics as part of the proposed works.

1.3 Survey objectives:

- Clarify the presence and location of any QI habitat within the site boundary, having regard to best practice survey guidance and published research on Annex I marine and benthic/lacustrine habitats
- Identify habitats:
    - That have a supporting function to the annex habitats
    - That have a biodiversity value beyond the Natura designation(s).

1.4 Survey Date & Surveyor Qualifications:

This report is based on the field survey undertaken by Mr. Roger Goodwillie, MSc, in March 2026.

Mr. Goodwillie holds qualifications in Botany from Trinity College Dublin and has over 40 years' professional experience in ecological survey, habitat assessment, and botanical analysis in Ireland, with particular expertise in coastal, wetland and Annex I habitat systems. He is a Member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

1.5 Survey Methodology

A field-based habitat survey was undertaken within the immediate environs of the proposed road development to characterise the baseline ecological conditions. The survey was completed in accordance with established best-practice methodologies and current scientific

literature relevant to the identification and classification of Annex I marine and benthic/lacustrine habitats.

The outputs of this survey inform both the Appropriate Assessment Natura Impact Statement (AA NIS) and the Ecological Impact Assessment (EcIA) previously submitted in support of the planning application.

2. **EU Designated Annex I HABITATS**

A classical lagoon is retained by sand or shingle bar rather than a causeway of rocks. However, the Interpretation manual of EU Habitats states that;

> *'Salt basins and salt ponds may also be considered as lagoons, providing that they had their origin on a transformed old natural lagoon or on a salt marsh and are characterised by a minor impact from exploitation'.*

According to the Healy & Oliver 1998 classification, the adjacent lagoon is an artificial saline lake.

The EU designated habitats identified in proximity to the proposed project are Coastal lagoons [1150] and Mediterranean salt meadows (Juncetalia maritimi) [1410]. Atlantic salt meadows (GlaucoPuccinellietalia maritimae) [1330] were also identified.

Figure 2.1 View adjacent lagoon

3. **Adjacent EU Designated Annex I HABITATS Identified**

No EU designated Annex I habitats were identified within the footprint of the proposed works. The following EU designated habitats were identified outside the footprint of the proposed works;

3.1 Coastal lagoon

Southwest of the proposed works, the lake has a rocky sloping shore on the south side but a gentler, reed-fringed zone to the north. The lake supports tasselweed *Ruppia* cf *maritima* (being fed on by mute swans) as well as *Hydrobia* snails. The northern side is at first a sward of sea rush *Juncus maritimus* and red fescue *Festuca rubra* mixed with common reed *Phragmites australis*. The latter becomes more common to the west, presumably as salinity declines. Purple moorgrass *Molinia caerulea* marks the transition to a fully terrestrial, heath vegetation.

Figure 3.1 View of the adjacent lagoon.

3.2 Salt meadows

North of the proposed scheme, the ground is vegetated by upper saltmarsh (the Mediterranean salt meadow) dominated by sea rush *Juncus maritimus* with red fescue *Festuca rubra*, creeping bent *Agrostis stolonifera* and sea arrow-grass *Triglochin maritimum*. Occasional plants of long-bracted sedge *Carex extensa* and sea plantain *Plantago maritima* occur while buckshorn plantain *P. coronopus* and Danish scurvy-grass *Cochlearia danica* grow in places along the top margins. Channels take tidal water to the NW, infiltrating the dry heath that is found on the rocky outcrops. The saltmarsh is possibly subject to sea level rise, with areas of bare peat present and occasional sea thrift *Armeria maritima* or sedge tufts.

3.3 Blanket bog.

It appears the peat was formed by lowland blanket bog. The habitat now appears to be in retreat with limited active peat formation. There is evidence of recent peat removal in this

area. A little black bog rush *Schoenus nigricans* and heather *Calluna vulgaris* persist in places in the *Molinia*/*Juncus* mixture.

Figure 3.2 View of upper saltmarsh communities

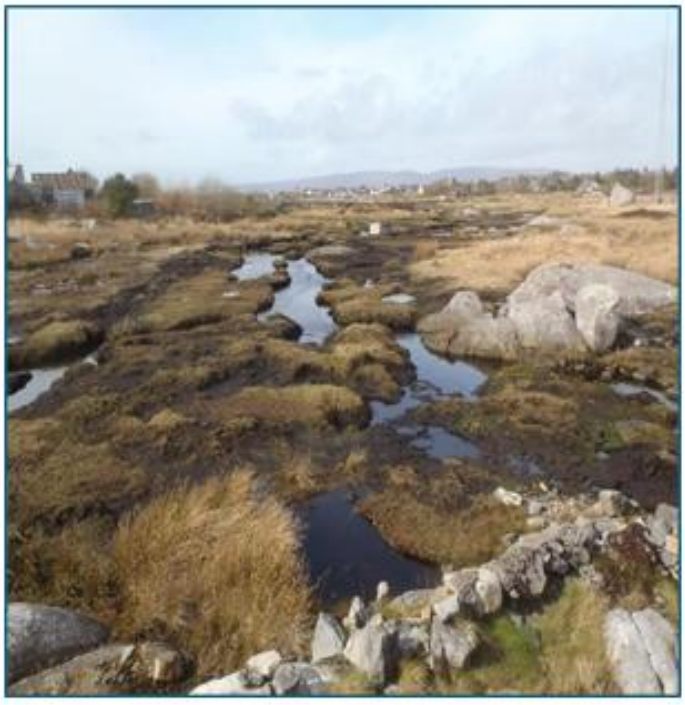

Figure 3.3 View of saltmarsh spread

4. Adjacent Habitats Identified.

These habitats provide a supporting function to the Annex I Habitat.

The following habitats do not themselves qualify as Annex I features but perform essential ecological functions that maintain the structure and integrity of the 1150*, 1410, and 1330 habitats. They are identified, as if these habitats are affected, there will be indirect impact on the qualifying Annex I features.

4.1 Tidal channel and saltmarsh creek network:

The network of tidal channels north of the road mediates salinity delivery to both the 1150* lagoon and the 1410/1330 saltmarsh communities. These channels are functionally dependent on continuous hydraulic connectivity through the road culverts. Juncus maritimus tussock fringe vegetation stabilises peat margins and prevents sediment input to the lagoon.

Figure 4.1 View of existing tidal channels and saltmarsh creek network

4.2 Saline ground

The Wet Grassland south of the road shows signs of saline influence (Fossitt CW1/GS4 transitional), in which Ruppia cf. maritima and Triglochin maritimum have been recorded in the field drain. This demonstrates active saline connectivity through the existing road drainage system. This zone supports lagoonal and halophytic species dependent on maintained saline influence.

Figure 4.2 View of adjacent lands influenced by salt water

4.3 Peat substrate and causeway embankment

The deep fibrous peat underlying the pool islands, saltmarsh, and road embankment acts as a slow-release freshwater reservoir moderating salinity fluctuations within the lagoon. It provides the physical substrate for both the 1150* and 1410/1330 communities and is characteristic of the rock/peat lagoon type noted as rare in Europe and specifically identified as a conservation feature of the Kilkieran Bay SAC.

4.4 Road drainage ditch (inland verge)

The drainage ditch on the southern (inland) verge of the road collects run-off from the surrounding pasture and heath. Its water enters the lagoon system via sub-road percolation and contributes to the freshwater balance of IL054. The vegetation present (Agrostis stolonifera sward, Juncus spp., Carex panicea) is transitional between freshwater and brackish communities.

Figure 4.3 View of road drainage ditch (inland verge)

4.5 Atlantic blanket bog and wet heath catchment

The surrounding landscape of Molinia caerulea-dominated wet heath and blanket bog provides the hydrological catchment delivering low-nutrient, peat-stained freshwater to the lagoon system. This maintains the characteristic low-turbidity, oligotrophic-to-mesotrophic water chemistry within which Ruppia and the lagoonal specialist fauna persist. Maintenance of the catchment in an unmodified condition is a prerequisite for long-term water quality compliance with the SSCO chlorophyll a, MRP, and DIN targets for IL054.

Figure 4.4 View of adjacent existing blanket bog

5. Adjacent Biodiversity Habitats

The following biodiversity habitats identified are not within EU Annex I Natura Designation(s). The following habitats and communities of biodiversity value were recorded outside the scheme footprint.

5.1 Brackish emergent swamp community:

The co-occurrence of Bolboschoenus maritimus (Sea Club-rush), Schoenoplectus lacustris ssp. tabernaemontani (Grey Club-rush), and Phragmites australis (Common Reed) at the lagoon margin, confirmed in the May 2025 survey defines a brackish swamp community (NVC S21) of national conservation interest. Both Bolboschoenus maritimus and Schoenoplectus tabernaemontani are lagoonal associate species recorded at Irish coastal lagoons. This community performs sediment trapping, bank stabilisation, and primary productivity functions within the lagoon system and is sensitive to changes in the salinity regime and water level.

5.2 Lagoonal fringe saltmarsh-granite mosaic:

The heterogeneous microhabitat mosaic of peat islands, Juncus maritimus tussocks, shallow polyhaline pools, and exposed granite outcrops constitutes a habitat type biogeographically restricted to the western Atlantic seaboard of Ireland. The nationally rare isopod Jaera forsmani, documented at IL054 in 1998, is dependent on this mosaic. This assemblage has no direct Annex I designation, but its maintenance is contingent on the continued ecological function of the 1150* lagoon habitat.

Figure 5.1 View of Lagoonal fringe saltmarsh-granite mosaic

5.3 Coastal granite rock outcrop lichen community:

The Connemara granite boulders and outcrops throughout the site support a diverse epilithic lichen flora confirmed to include Xanthoria parietina, Ochrolechia sp., and crustose species of Lecanora and Ramalina.

Coastal granite outcrops in this region support nationally significant lichen assemblages sensitive to physical disturbance, dust deposition from road surfaces, and nitrogen enrichment.

Figure 5.2 View of coastal granite rock outcrop

5.4 Vascular plants

Carex extensa (Long-bracted Sedge) has been confirmed at the site in both the May 2025 and the March 2026 surveys. This species is nationally scarce in Ireland and is a strong diagnostic indicator of high-quality Atlantic and Mediterranean salt meadow in the Irish west coast context.

6. Findings & Conclusions

6.1 Findings

A local rural road, ref: L-52214 is frequently inundated by seawater. This limits public and domestic access to 17 no. residence's. The access constraint poses a health and safety risk to residence to critical emergency services, [Fire and Ambulance Services]. A minor works overlay road improvement project is proposed to raise its elevation locally, to improve local access whilst maintaining the existing hydraulic mechanisms.

A field-based habitat survey was undertaken within the immediate environs of the proposed road development to characterise the baseline ecological conditions. According to the Healy & Oliver 1998 classification, the adjacent lagoon is an artificial saline lake.

No EU designated Annex I habitats were identified within the footprint of the proposed works. The EU designated habitats identified in proximity to the proposed project are Coastal lagoons [1150] and Mediterranean salt meadows (Juncetalia maritimi) [1410]. Atlantic salt meadows (GlaucoPuccinellietalia maritimae) [1330] were also identified. Habitats identified include a coastal lake and salt meadows.

No non-EU designated habitats were identified within the footprint of the proposed works. Some habitats were identified in this assessment, that were located outside the footprint of the proposed works. Habitats identified include a tidal channel and saltmarsh creek network, saline grounds, peat substrate and causeway embankment, road drainage ditch, Atlantic blanket bog and a wet heath catchment.

Some biodiversity habitats of value were identified during the survey, which are not within EU Annex I Natura Designation(s). The following habitats do not themselves qualify as Annex I features but perform essential ecological functions that maintain the structure and integrity of the 1150*, 1410, and 1330 habitats. Habitats identified include brackish emergent swamp community, lagoonal fringe saltmarsh granite mosaic, coastal granite rock outcrop lichen community and vascular plants.

6.2 Conclusions

There was no EU designated Annex I habitats identified within the proposed scheme footprint There was no non- EU designated Annex I habitats identified within the proposed scheme footprint. There were no biodiversity habitats of identified during the survey that perform essential ecological functions that maintain the structure and integrity of the 1150*, 1410, and 1330 habitats within the scheme footprint.

On the basis that the existing hydraulic connectivity of the causeway is maintained, the overall functioning of the existing tidal water exchange system will maintain the existing the salinity regime. Maintenance of the existing salinity regime will maintain the ecological conditions of the habitats identified.

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