Natura Impact Statement :

Proposed Replacement Dwelling.
Cloontyprocklis, Grange, Co. Sligo

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For: Studio PARK

Date: 15/08/2022

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1. Background:

Sligo County Council have advised that a planning application proposing the replacement of an existing dwelling at Cloontyprocklis on the L3203 around 1.25 km south-west of Grange in County Sligo will require a Natura Impact Statement in compliance with European Commission Habitats Directive (92/43/EEC) to assess the potential for impacts upon Natura 2000 sites, namely Streedagh Point Dunes Special Area of Conservation (SAC code 001680).

WM Associates have been duly appointed to undertake the assessment. Due to Covid 19 travel restrictions, the initial assessment was compiled as a desk study informed by liaison with the site owners, and photography specified by WM Associates but undertaken by the site owners. This version was submitted 26/10/2020.

Relaxation of travel restriction in 2021 enabled a site visit to support the assessment. This version of the Natura Statement now replaces the desk-study version of 26/10/2020.

The aims of this report are:

1. Identification of the qualifying interests that the proposal must be screened against.

2. Identification of potential risks to the specified feature and of the standard environmental precautions that will be adopted irrespective of the threat to N2K designations.

3. Prescribe mitigation that should be undertaken to manage potential impacts.

4. Compile the Natura Impact statement.

On the advice of NPWS following the Sligo County Council pre-planning consultation, a baseline ecological assessment based on the field survey has been added, the aims of which are not directly related to an assessment of impacts upon Natura 2000 (N2K) sites.

5. Identification of potential general biodiversity impacts of the proposed redevelopment.

6. Identification of any ecological constraints upon the proposed redevelopment.

7. Identification of any additional surveys that NPWS may require to enable them to assess the proposal.

8. Provide advice if necessary on the most economically effective response to any identified potential impacts or constraints.

1.1 The Assessment Process:

Articles 6(3) and 6(4) of the 'Habitats Directive' (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) set out the decision-making tests for plans and projects likely to affect an EPS. Article 6(3) establishes the requirement for AA:

Stage 1 of the prescribed process is an Appropriate Assessment Screening to investigate potential effects of the works on the qualifying interests and conservation objectives of the European Protected Site. Effects on all qualifying interests will be considered; the features of concern may be summarised as terrestrial, estuarine, littoral and intertidal habitats and the waterfowl that they sustain.

Depending on the outcome of the Screening exercise, and following the precautionary principle, if significant effects are likely, uncertain or unknown, a further stage of Appropriate Assessment (*Stage 2*) will be required that will take account of any mitigation measures that have been identified arising from the screening process. A Natura Impact Statement (NIS) will be produced, which will record and analyse potential effects on the conservation objectives of the EPS. Where no significant effects will be anticipated, works will be carried out in accordance with the mitigation measures produced in the AA.

Where significant adverse impacts of a scheme are anticipated, alternative ways of achieving the objectives of the project or plan that avoid adverse impacts on the integrity of the European site are assessed (*Stage 3*).

Stage 4 of the process is initiated where no alternative solutions exist and where adverse impacts remain. An assessment of compensatory measures is carried out 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.

1.2 Mitigation works:

Currently the Stage 1 Appropriate Assessment must be subject to a recent CJEU ruling (C-323/17 of 12 April 2018 People Over Wind and Peter Sweetman v Coillte Teoranta), which determined that 'it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site'.

Thus a proposed project can only be screened out at Stage 1 if there will demonstrably be no impacts were the project to go ahead in the absence of mitigation works.

Mitigation included in the proposal is duly considered as a part of the Stage 2 Appropriate Assessment.

1.3 Survey details:

Site visits

19/04/2021	Shaun Wolfe-Murphy BSc., Dip. EIA Mgmt., MCIEEM

Statement of Authority: Shaun has 30 years' experience as a professional botanist, including working for the NIEA habitat survey and designations team, the England Field unit of the (then) NCC and for the survey and designations unit of Dúchas in the government conservation agency of Republic of Ireland. During the time spent working for these agencies much emphasis was on the survey and ecological evaluation of sites.

Since establishing WM Associates in 1994 as an ecological consultancy, he has routinely compiled ecological impact assessments and Habitat Regulations Assessment in Northern Ireland for a wide variety of development projects in both urban and rural habitats.

Statement of Objectivity: The data have been collected and presented impartially, as required by the CIEEM code of professional conduct. Payment or other favour is not dependent upon any particular planning outcome, and there is no other vested or personal interest in any particular outcome.

Survey method

The site was visited and habitats within and around the site were described and assessed in survey compartments allocated on the survey day according to vegetation type. The habitat type was allocated to the Heritage Council habitat classification (Fossitt 2000). Notes were made of the main plant species, and other species that are indicative of the condition and management of the habitat.

In describing the status of plant species in an area, the qualitative DAFOR scale is used, where:

D	=	Dominant	Qualifying prefixes		
A	=	Abundant			
F	=	Frequent	L	=	Local – patchy distribution
O	=	Occasional	V	=	'very'
R	=	Rare			

Lists are tabulated in order of descending abundance.

Where trees were measured during this survey, their diameter at breast height (dbh) is given in cm.

The habitat suitability for different animals or animal groups was assessed, specifically:

> *Badgers* – The PEA survey incorporated a Badger survey comprising a search for signs of usage by Badger, such as foraging tracks, snagged guard hairs, dung etc. In particular a search was conducted for potential sett entrances. The search area included a buffer of at least 25m beyond the site boundary where access was possible.

Bats – The general suitability of the area for supporting foraging bats was assessed based on field observations on the survey day, plus reference to satellite images and was based on habitat quality, diversity and likely invertebrate productivity, and on structural habitat connectivity. The role of the individual boundaries on the surveyed site in wider connectivity was assessed.

The existing buildings to be demolished have already been surveyed for bats by Wild on Foot (2020). The surveyors found no evidence of bats roosting in the existing buildings, and the Bat Roost Potential (BRP) of the buildings was not further assessed.

A Bat Roost Potential (BRP) survey was conducted following the BCT guidelines (Collins, 2016): Trees in, or close to the available development area were assigned Bat Roost Potential as follows:

BRP	**Description**
0: Negligible	Trees without loose bark, fissures and rot holes, and without dense mature Ivy cover. Generally young to semi-mature specimens, or larger specimens that it is clear, from ground level do not have PRF's.
1: Low	Trees with very limited loose bark, fissures, rot holes dense mature Ivy cover, but the tree is of a size and age that it is not clear, from ground level that they do not have PRF's.
2: Moderate	Trees with e.g. loose bark, deep fissures or splits and rot holes, or with dense thick-stemmed Ivy that seem likely to present potential at least for use by single bats, habitat but unlikely to support a roost of high conservation status.
3: High	Trees with multiple, highly suitable features that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Otters – The survey considered the potential suitable habitats for otters and notes were made of any signs of Otter use along waterways, plus any potential holt entrances. This including a 30m buffer up-stream and downstream.

Birds - Suitable nesting and feeding habitats were noted on and around the site.

All survey compartments were photographed. All photos are archived and available on request as high resolution graphic files.

Limitations:

Enough plant species were recorded to characterise habitats, but a full inventory was not intended.

Trees were not tagged and this report does not constitute a tree survey

2. Site Description:

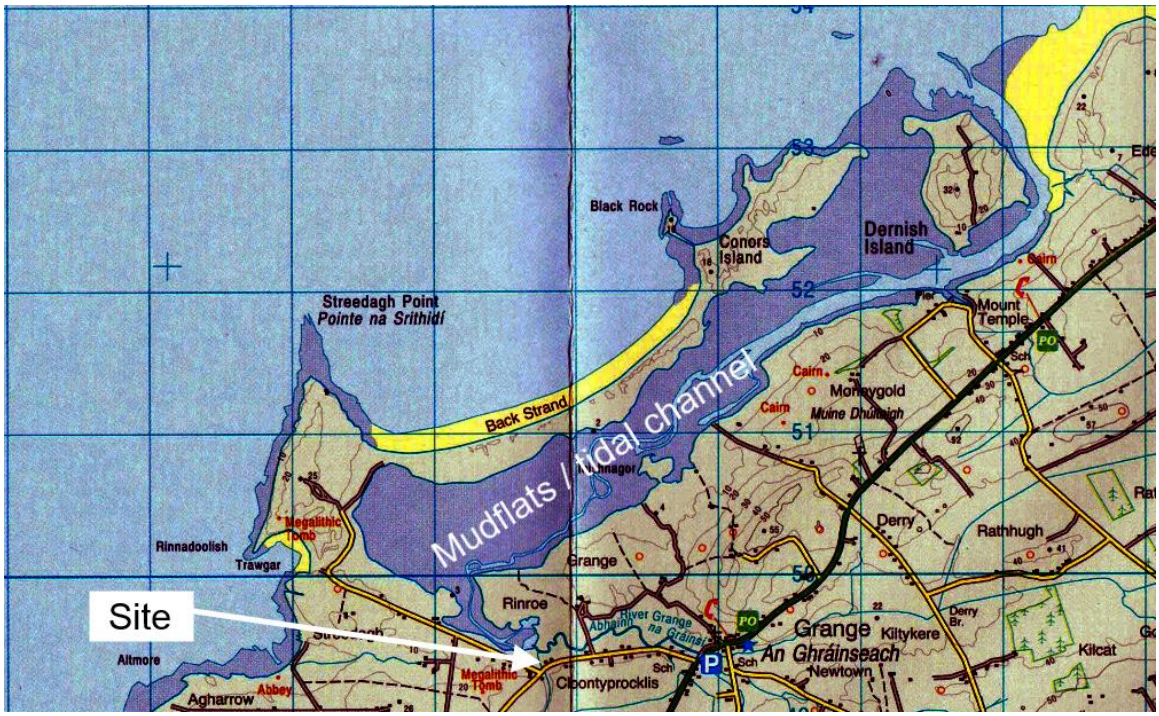
2.1 Setting:

The proposed development site is represented by the curtilage of an existing cottage facing onto the L3203 and beside a small watercourse that runs for some 65m into the Grange River.

The site elevation is <5m above OS datum. The point at which the small watercourse joins the Grange River is around 175m before it discharges over the mudflats at Rinroe, within a long coastal inlet defined by Back Strand and Connor's Island which form a 'tombolo', a long shingle spit overlain with sand dunes running parallel to the coast. The entrance to the inlet is further restricted by Dernish Island.

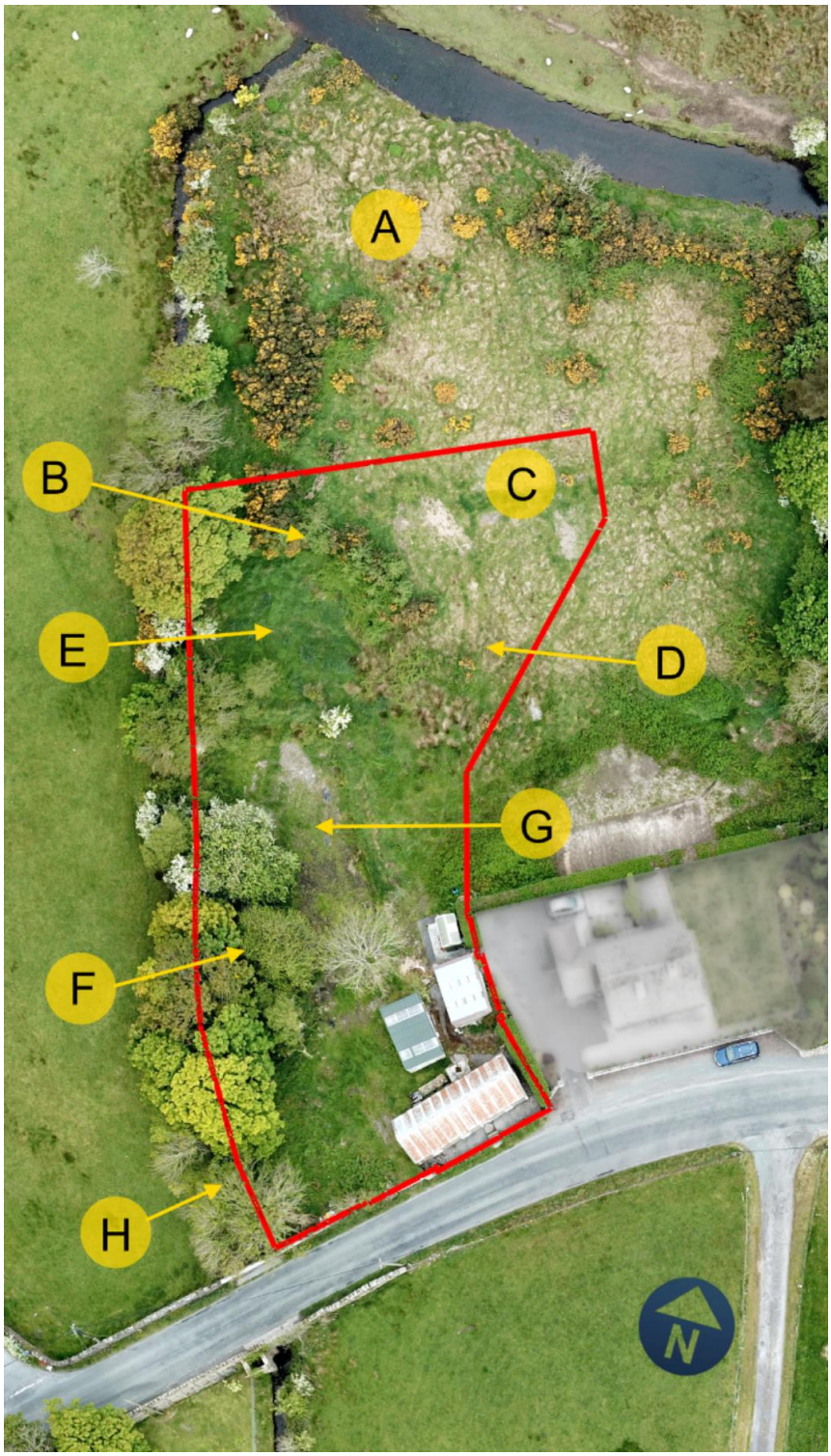
Thus the immediate shore over which the Grange River discharges is sheltered from the Atlantic which allows the mudflats to accumulate, and in places, for 'saltmarshes' to form.

Saltmarshes are vegetated mud flats that are inundated by seawater at high tides – Mudflats and saltmarshes are very environmentally demanding habitats in which only a very specialised flora and fauna can survive.



Application site in relation to Streedagh Point Dunes SAC

2.2 Ecological Baseline



Habitat Map

Compartment A: scattered WS1 Scrub + unmanaged GS2 Dry meadows and grassy verges

The river level is > 100 cm below the adjacent grassland of the enclosure in which the site is located. There is Sea Club-rush (Bolboschoenus maritimus) and Common Scurvygrass (Cochlearia officinalis agg) along the river edge, and Enteromorpha algae in the river indicating brackish influence, but grassland rising from the river to the site is without halophytes:

Red Fescue (Festuca rubra)	A
Yorkshire-fog (Holcus lanatus)	A
Creeping Bent (Agrostis stolonifera)	F
Soft-rush (Juncus effusus)	F
Common Sorrel (Rumex acetosa subsp acetosa)	O-F
Smooth Meadow-grass (Poa pratensis agg)	O-F
Bramble (Rubus fruticosus agg.)	OLA
Meadowsweet (Filipendula ulmaria)	OLF
Creeping Buttercup (Ranunculus repens)	O
Gorse (Ulex europaeus)	O
Sharp-flowered Rush (Juncus acutiflorus)	O
Silverweed (Potentilla anserina)	O
Ribwort Plantain (Plantago lanceolata)	O
Hemlock Water-dropwort (Oenanthe crocata)	O
Neat Feather-moss (Pseudoscleropodium purum)	LF
Meadow Foxtail (Alopecurus pratensis)	LO
Sweet Vernal-grass (Anthoxanthum odoratum)	LO
Oval Sedge (Carex leporina)	R
Field Wood-rush (Luzula campestris)	R
Dandelion (Taraxacum officinale)	R
Curled Dock (Rumex crispus)	R
Tormentil (Potentilla erecta)	VR

Site rising from the Grange River photographed from the adjacent salt meadows.

A (off-site)

A sward

Compartment B: scattered WS1 Scrub

Part of a stand of dense tall scrub that is mainly situated off-site, where Gorse (Ulex europaeus) is dominant. The edge extending into the proposal site is mainly part of a Bramble mantle around the main stand.

Bramble (Rubus fruticosus agg.)	D	
Gorse (Ulex europaeus)	LA	1.8m, taller off site
Common Alder (Alnus glutinosa)	F	Saplings
Common Ivy (Hedera helix)	LF	
Cleavers (Galium aparine)	O	
Montbretia (Crocosmia x crocosmiiflora)	LO	

Dense enough to ± exclude the former grass cover

B

C

Compartment C: largely unmanaged, but part-disturbed GS2 dry meadows and grassy verges

The grassland rising from the river and extending into the site is similar to Compartment A, and a little disturbed in places. This is very extensively grazed by occasional sheep escapees.

Yorkshire-fog (Holcus lanatus)	A	
Red Fescue (Festuca rubra)	F	Sparse
Sweet Vernal-grass (Anthoxanthum odoratum)	F	
Ribwort Plantain (Plantago lanceolata)	F	
Springy Turf-moss (Rhytidiadelphus squarrosus)	F	
Smooth Meadow-grass (Poa pratensis agg)	F	
Meadow Foxtail (Alopecurus pratensis)	OLF	
Common Bent (Agrostis capillaris)	OLF	
Soft-rush (Juncus effusus)	O	
Field Wood-rush (Luzula campestris)	O	
Common Sorrel (Rumex acetosa subsp acetosa)	O	
White Clover (Trifolium repens)	O	
Creeping Bent (Agrostis stolonifera)	LO	
False Oat-grass (Arrhenatherum elatius)	LO	
Cock's-foot (Dactylis glomerata)	R	
Meadow Buttercup (Ranunculus acris)	R	
Creeping Buttercup (Ranunculus repens)	R	
Wild Angelica (Angelica sylvestris)	VR	

With scattered Bramble (Rubus fruticosus agg.), Gorse (Ulex europaeus) and sapling Common Alder (Alnus glutinosa).

D

Compartment D

Beyond the 'summit' of Compartment C the topography falls. There is a maximum height difference of < 40 cm between the lowest point of D and the highest point of C. Compartment D then rises at a ± consistent 9° up to the currently built level.

Fairly modest differences with the Compartment D grassland, but this an area that is presumed to have been formerly cultivated, which has resulted in increased representation of N-indicators.

Yorkshire-fog (Holcus lanatus)	A
Meadow Foxtail (Alopecurus pratensis)	F
Common Sorrel (Rumex acetosa subsp acetosa)	F
Creeping Buttercup (Ranunculus repens)	FLA
Rosebay Willowherb (Chamerion angustifolium)	OLA
Common Nettle (Urtica dioica)	OLF
Sweet Vernal-grass (Anthoxanthum odoratum)	O
Creeping Bent (Agrostis stolonifera)	O
Smooth Meadow-grass (Poa pratensis agg)	O
Hedge Bindweed (Calystegia sepium agg)	O
Broad-leaved Dock (Rumex obtusifolius)	O
Meadow Buttercup (Ranunculus acris)	O
Dandelion (Taraxacum officinale)	O
Bush Vetch (Vicia sepium)	O
Ribwort Plantain (Plantago lanceolata)	LO
Wavy Bitter-cress (Cardamine flexuosa)	LO
Soft-rush (Juncus effusus)	R
Yellow Iris (Iris pseudacorus)	R
Cock's-foot (Dactylis glomerata)	R
Shining Crane's-bill (Geranium lucidum)	VR

Compartment E: Eutrophic GS4 wet grassland

Between the Compartment E scrub and the small embanked enclosure the ground dips slightly towards the stream, becoming damper and transitioning to MG:1b the Urtica dioica sub-community of the MG:1 Arrhenatherum elatius grassland community:

Yorkshire-fog (Holcus lanatus)	F-A
Common Nettle (Urtica dioica)	FLA
Rough Meadow-grass (Poa trivialis)	FLA
Meadow Foxtail (Alopecurus pratensis)	F
Cleavers (Galium aparine)	F
Yellow Iris (Iris pseudacorus)	LF
Creeping Buttercup (Ranunculus repens)	O
Creeping Bent (Agrostis stolonifera)	O
Soft-rush (Juncus effusus)	O
False Oat-grass (Arrhenatherum elatius)	OLF
Broad-leaved Dock (Rumex obtusifolius)	R
Bush Vetch (Vicia sepium)	R

E

E sward

Compartment F: WD1 Non-native, broadleaved woodland

In the shade cast by the Sycamore and spreading Apple trees a rudimentary eutrophic ground-flora has developed:

Common Nettle (Urtica dioica)	A-D	
Common Ivy (Hedera helix)	F-A	
Cleavers (Galium aparine)	F	
Meadow Foxtail (Alopecurus pratensis)	F	
Creeping Buttercup (Ranunculus repens)	OLA	
Yorkshire-fog (Holcus lanatus)	OLF	
Herb-Robert (Geranium robertianum)	O	
Bramble (Rubus fruticosus agg.)	O	
False Oat-grass (Arrhenatherum elatius)	LO	
Common Striated Feather-moss (Eurhynchium striatum)	LO	
Pointed Spear-moss (Calliergonella cuspidata)	LO	
Hogweed (Heracleum sphondylium)	LO	
Crack Willow (Salix fragilis)	R	Seedling
Ash (Fraxinus excelsior)	R	Seedlings
Dandelion (Taraxacum officinale)	R	
Broad-leaved Willowherb (Epilobium montanum)	R	
Bush Vetch (Vicia sepium)	R	
Cock's-foot (Dactylis glomerata)	R	
Tufted Hair-grass (Deschampsia cespitosa)	R	

F

G

Compartment G: Disturbed GS2 dry meadows and grassy verges
+ ED3 recolonising bare ground

Disturbed grassland in and around the cottage, and occupying the small embanked enclosure downslope from the cottage. High species-richness attributable to availability of germination niches and the recruitment of weedy species:

Yorkshire-fog (Holcus lanatus)	F	
Creeping Bent (Agrostis stolonifera)	F-A	
Creeping Buttercup (Ranunculus repens)	O-F	
Wavy Bitter-cress (Cardamine flexuosa)	O-F	
Nipplewort (Lapsana communis)	OLF	
Daisy (Bellis perennis)	OLF	
Meadow Foxtail (Alopecurus pratensis)	O	
Shining Crane's-bill (Geranium lucidum)	O	
Sycamore (Acer pseudoplatanus)	O	Seedlings and saplings
Cleavers (Galium aparine)	O	
Rough-stalked Feather-moss (Brachythecium rutabulum)	O	
Annual Meadow-grass (Poa annua)	O	
Common Mouse-ear (Cerastium fontanum)	O	
Broad-leaved Dock (Rumex obtusifolius)	O	
Cleavers (Galium aparine)	O	
Groundsel (Senecio vulgaris)	LF	
Dandelion (Taraxacum officinale)	LF	
Common Whitlowgrass (Erophila verna agg)	LO	
Thale Cress (Arabidopsis thaliana)	LO	
Red Fescue (Festuca rubra)	LO	
Hedge Bindweed (Calystegia sepium agg)	LO	
Short-fruited Willowherb (Epilobium obscurum)	LO	
Common Nettle (Urtica dioica)	LO	
Blinks (Montia fontana)	LO	
Great Willowherb (Epilobium hirsutum)	LO	
Field Horsetail (Equisetum arvense)	LO	
Dove's-foot Crane's-bill (Geranium molle)	R	
Procumbent Pearlwort (Sagina procumbens)	R	
Cock's-foot (Dactylis glomerata)	R	
Smooth Meadow-grass (Poa pratensis agg)	R	
Perennial Rye-grass (Lolium perenne)	R	
Field Forget-me-not (Myosotis arvensis)	R	
White Clover (Trifolium repens)	R	
Common Soft-brome (Bromus hordeaceus ssp hordeaceus)	VLF	
Spear thistle (Cirsium vulgare)	VR	

Compartment H: FW2 Depositing lowland river

The adjacent stream may have been diverted along field boundaries, but is essentially natural in origin. It is generally a consistent 1.9 to 2.1m wide with just a few wider areas at stock access points.

It flows briskly over mixed sediments of rocks stones and silt, with few sand berms at the margins. Mean depth is around 5 cm. The banks slope steeply to either side from the water line to around 1.5m + along the application site side.

As it flows past the application site it is shaded by near continuous riparian trees almost all on the eastern side, within the application site. Shade adapted species are frequent along the banks.

Upstream above the bridge, and downstream to the Grange river outfall, the stream is more open (mown on one side upstream, sheep grazed on one side downstream) and structural cover comprises mainly shrubs rather than trees..

Onsite:

	Mature 30+ Early-Mature 20+	Semi-Mature 12+ Young 6+	Sapling to 6 Seedling 0-2 yr
Trees			
Sycamore (Acer pseudoplatanus)	LF	O	R
Ash (Fraxinus excelsior)	O		O
Crack Willow (Salix fragilis)	R	R	
Shrubs			
Hawthorn (Crataegus monogyna)	LF		
Elder (Sambucus nigra)		R	

Downstream running into Gorse (Ulex europaeus).

The bank species along the application site boundary:

Common Ivy (Hedera helix)	FLD	
Bramble (Rubus fruticosus agg.)	F	
Bluebell (Hyacinthoides non-scripta)	OLA	
Montbretia (Crocosmia x crocosmiiflora)	OLA	Invasive non-native
Hart's-tongue (Asplenium scolopendrium)	O	
Male-fern (Dryopteris filix-mas)	O	
Meadowsweet (Filipendula ulmaria)	O	
Herb-Robert (Geranium robertianum)	O	
Hemlock Water-dropwort (Oenanthe crocata)	O	
Lesser Celandine (Ficaria verna)	O	
Cleavers (Galium aparine)	O	
Herb-Robert (Geranium robertianum)	O	

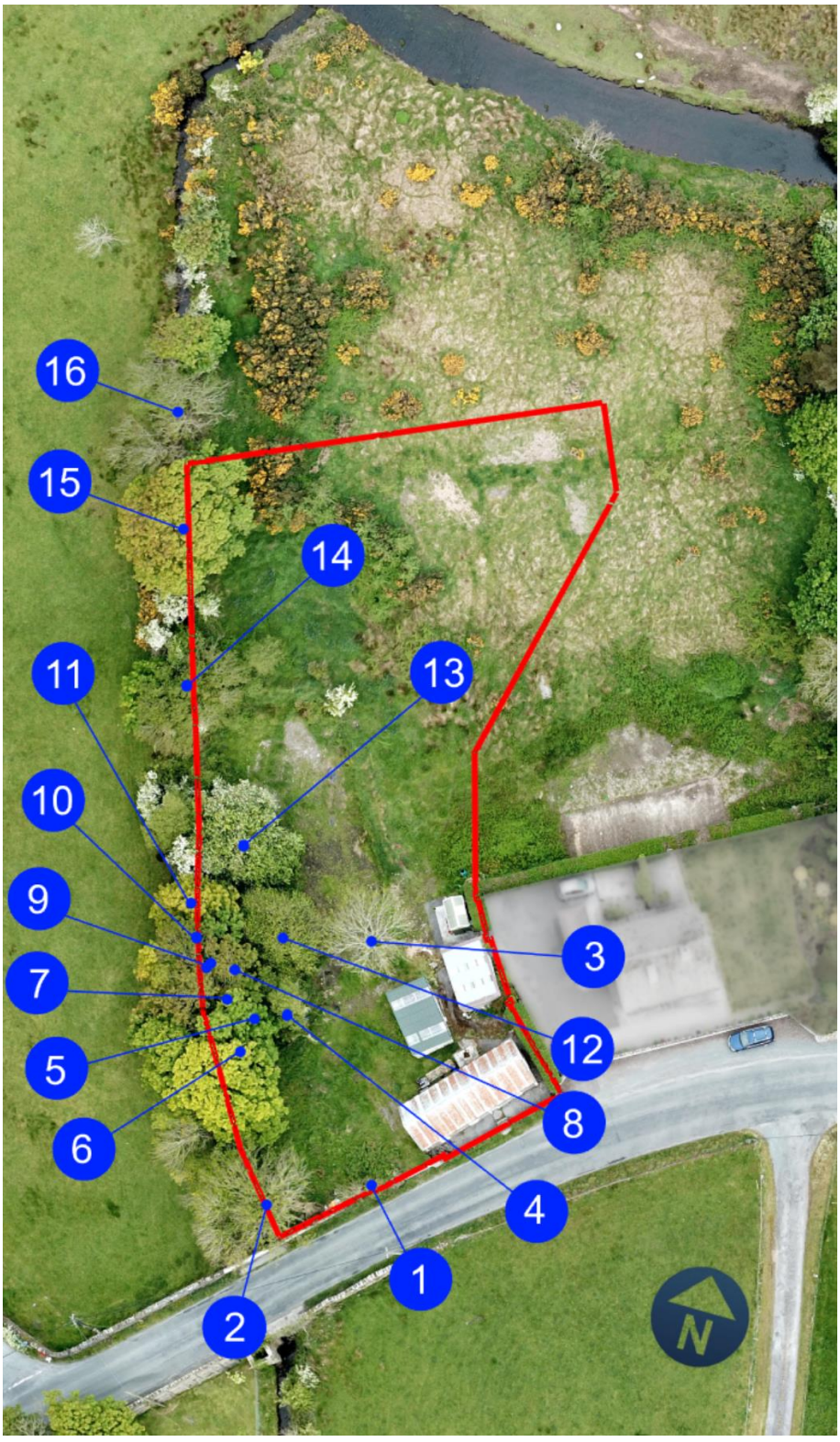
Broad Buckler-fern (Dryopteris dilatata)	O	
Remote Sedge (Carex remota)	LF	
Overleaf Pellia (Pellia epiphylla)	LF	
Fool's-water-cress (Apium nodiflorum)	LF	Stream channel
Hoary Willowherb (Epilobium parviflorum)	LO	
Hemp-agrimony (Eupatorium cannabinum)	LO	
Brooklime (Veronica beccabunga)	LO	Streamside
Lady-fern (Athyrium filix-femina)	LO	
Opposite-leaved G'-saxifrage (Chrysosplenium oppositifolium)	LO	
Meadow Foxtail (Alopecurus pratensis)	R	
Primrose (Primula vulgaris)	R	
Common Dog-violet (Viola riviniana)	R	
Soft Shield-fern (Polystichum setiferum)	R	
Germander Speedwell (Veronica chamaedrys)	R	
Wavy Bitter-cress (Cardamine flexuosa)	R	
Swan's-neck Thyme-moss (Mnium hornum)	R	
Hogweed (Heracleum sphondylium)	R	
Common Valerian (Valeriana officinalis)	R	
Broad-leaved Dock (Rumex obtusifolius)	R	
Garlic (Allium sativum)	VLO	Not Sand Leek
A Daffodil cultivar (Narcissus agg.)	VLO	

Upstream

Site boundary

Downstream (but facing upstream)

outfall



Trees

No.	Spp.	DBH cm[1]	BRP[2]	Condition/notes
1	2 x Ash (Fraxinus excelsior)	To 27	0	3 stems recently pollarded at ± 4m
2	Ash (Fraxinus excelsior)	To 39	1	4-stems, bank top location.
3	Ash (Fraxinus excelsior)	39	1	
4	Crack Willow (Salix fragilis)	72	2	Most heavy limbs were formerly spreading laterally and have been removed. Most have fractured and have deep slits that provide Potential Roost Features (PRFs).
5	Sycamore (Acer pseudoplatanus)	To 24	1	Low-breaking from 38 cm Ø base
6	Sycamore (Acer pseudoplatanus)	62	1	Slight lean. Heavy Ivy but not with PRFs
7	Sycamore (Acer pseudoplatanus)	To 35	1	Low-breaking from 38 cm Ø base Heavy Ivy but not with PRFs
8	Sycamore (Acer pseudoplatanus)	To 33	1	Bund top position. Low-breaking from 56 cm Ø base
9	2 x Sycamore (Acer pseudoplatanus)	To 21	0	4 semi mature trees plus 2 x young trees. Mid-bank location below the bund.
10	Sycamore (Acer pseudoplatanus)	To 27	1	2-stems
11	Sycamore (Acer pseudoplatanus)	33	0	1-sided structure
12	Domestic Apple (Malus pumila)	23	0	Spreading from. Multi-stemmed from base.
13	Domestic Apple (Malus pumila)	To 28	1	Spreading from 48 cm Ø base
14	Common Alder (Alnus glutinosa)	To 48	2	Low-breaking from 68 cm Ø base. Splits stems and heavy Ivy provide PRFs
15	Sycamore (Acer pseudoplatanus)	To 49	2	3-stems. Significant welds
16	Common Alder (Alnus glutinosa)	To 35	0	Multi-stemmed plus many slender epicormic shoots from a 69 cm Ø base

1 DBH = stem diameter at 1.3m from the ground (breast height)
2 BRP = Bat Roost Potential

Invasive non-native species.

No species on the Third schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 were located on the site or its approaches (except that there is roadside Japanese Knotweed (Fallopia japonica) on the L3202 Streedagh Road a considerable distance from the site).

Darwin's Barberry (Berberis darwinii) and Montbretia (Crocosmia x crocosmiiflora) are present in the streamside vegetation above the bridge. Montbretia, as noted is patchy at the streamside beside the proposal site and becomes increasingly abundant beyond the end of the site fully to the confluence with the Grange River.

Montbretia on-site…..

And downstream

Birds

The site is not important for any of the estuarine species using the mudflats within the SAC.
No birds were noted to be visiting the buildings on site during the survey, and no sign of former nests were located from an external investigation.

Masonry gaps of the parapet of the bridge are large enough to provide potential nest sites. Any of the structural vegetation of the site could host nesting birds. Blackcap were singing from the streamside for much of the survey. A nest from 2020 was located in tree 14.

Mammals

Otter: The stream was searched for 30 m upstream of the road bridge, and fully from the site to the outfall into the Grange River.

No Otter signs were located. The number of mud banks at the streamside were limited, but no pads were identified. There were no spraints or quarry remains and no slides, or burrows in the bank that could have been holts.

The only well-marked path down the bank turned out to have been made by sheep crossing he stream into the site.

In the mud of the Grange River banks Mink pads were located, but not Otter.

Mink pads

Sheep path

Badger: No potential sett entrances on the site or within 30 m of the site where access was possible. The site is crossed by a well-marked forage track with snuffle holes and scratch marks indicating foraging.

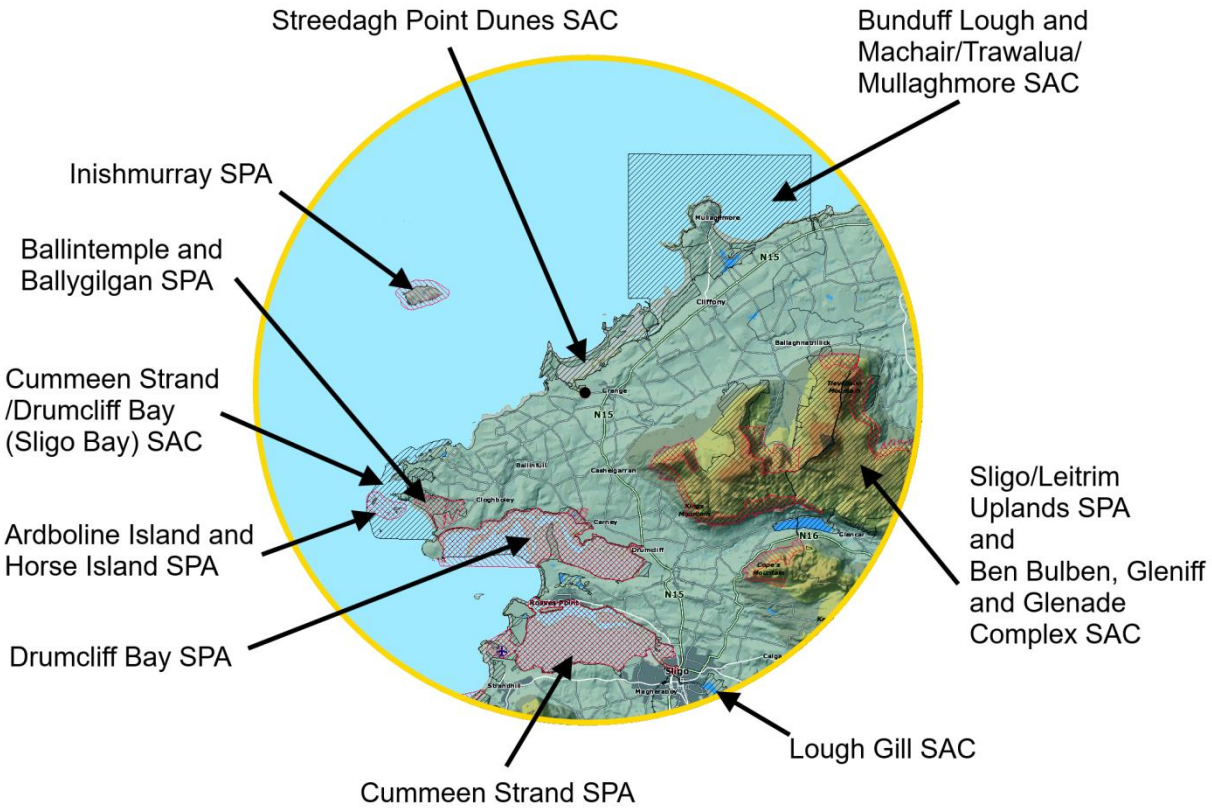
Forage track

Feeding signs

Overview

3. Natura 2000 Designations:

Environment, Heritage and Local Government (2010) advises that for the assessment of Plans, potential for impacts upon any Natura 2000 sites within a distance of 15km (the 'likely zone of impact') should be assessed, but for projects, the distance could be much less and that this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivity of the ecological receptors, and the potential for in combination effects'



Natura 2000 sites within 15 km of the pending proposal site

Background information: Qualifying Interests (Features) and Conservation Objectives:

Natura 2000 sites are a part of an international network of sites designated to protect species and habitats identified as being at risk in Europe. They are therefore designated for specified species or habitats which are termed the qualifying Features.

Article 2 of The Habitats Directive outlines that habitats and species qualifying Features protected by the Directive must be maintained in 'favourable conservation status' within their range.

The conservation status of a Habitat Feature is regarded as 'favourable' when:

> The natural range, and area it covers within that range, is stable or increasing;
>
> 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.

Favourable conservation status of a Species Feature 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.
>
> The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future.
>
> There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long term basis.

The N2K sites that are inland from the proposed replacement dwelling at Cloontyprocklis have no functional connectivity and are not considered to be at risk.

Of the coastal SACs Streedagh Point Dunes SAC 170 is clearly at risk. The other SACs are functionally connected via marine open water, but given the scale of the proposal are ruled out due to dilution rending any marine inputs insignificant.

The coastal SPAs are designated for birds. The Feature birds that use the marine SPAs are protected when they are using other sites beyond the designation.

It is not known whether the coastal inlet behind Back Strand is used by significant numbers of birds protected within the marine SPAs, so they cannot be ruled out (the precautionary principle is applicable).

Streedagh Point Dunes SAC Selection Features:

Narrow-mouthed Whorl Snail Vertigo angustior
Mudflats and sandflats not covered by seawater at low tide
Perennial vegetation of stony banks
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
Mediterranean salt meadows (Juncetalia maritimi)
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)
Fixed coastal dunes with herbaceous vegetation (grey dunes)

Inishmurray SPA Selection Features:

Shag Phalacrocorax aristotelis (breeding)
Herring Gull Larus argentatus (breeding)
Arctic Tern Sterna paradisaea (breeding)

Barnacle Goose Branta leucopsis (over wintering)

Ballintemple and Ballygilgan SPA Selection Feature:

Barnacle Goose Branta leucopsis (over wintering)

Ardboline Island and Horse Island SPA Selection Features

Cormorant Phalacrocorax carbo (breeding)

Barnacle Goose Branta leucopsis (over wintering)

Drumcliff Bay SPA Selection Features

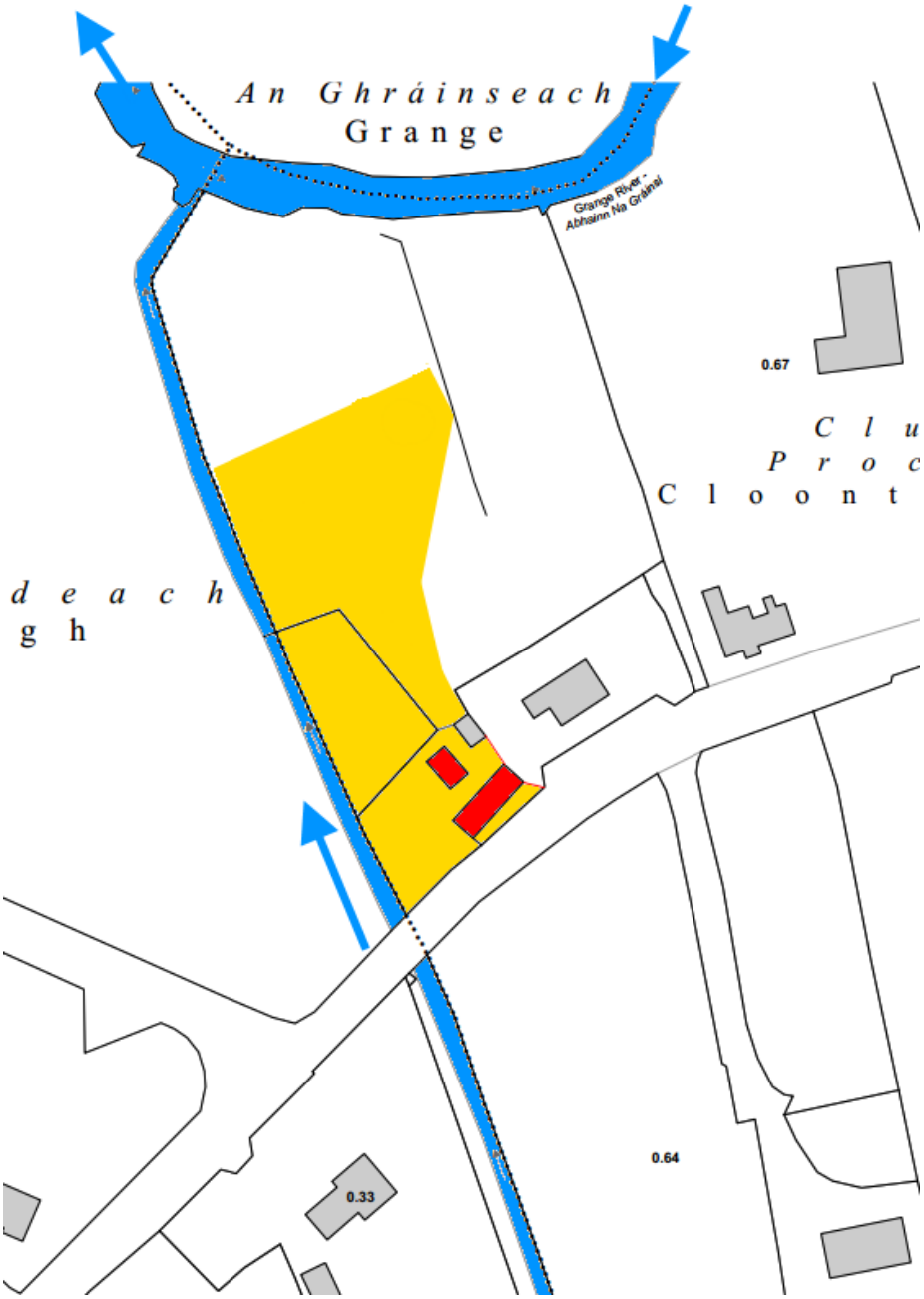
Sanderling Calidris alba (over wintering)
Bar-tailed Godwit Limosa lapponica (over wintering)
Wetlands (bird assemblage)

Cummeen Strand SPA Selection Features

Pale-bellied Brent Goose Branta bernicla hrota (over wintering)
Oystercatcher Haematopus ostralegus (over wintering)
Redshank Tringa totanus (over wintering)
Wetland (bird assemblage)

3.1 Connectivity between the site and Streedagh Point Dunes SAC

The input pathway from the proposal site to the Streedagh Point Dunes SAC is via the stream adjacent to the site, and then via Strand River:



Proposal site (in yellow)

There is a culvert from the hard surface along the front of the current building that can be assumed to lead directly to the stream, although the outfall could not be located.

Drainage gully/culvert

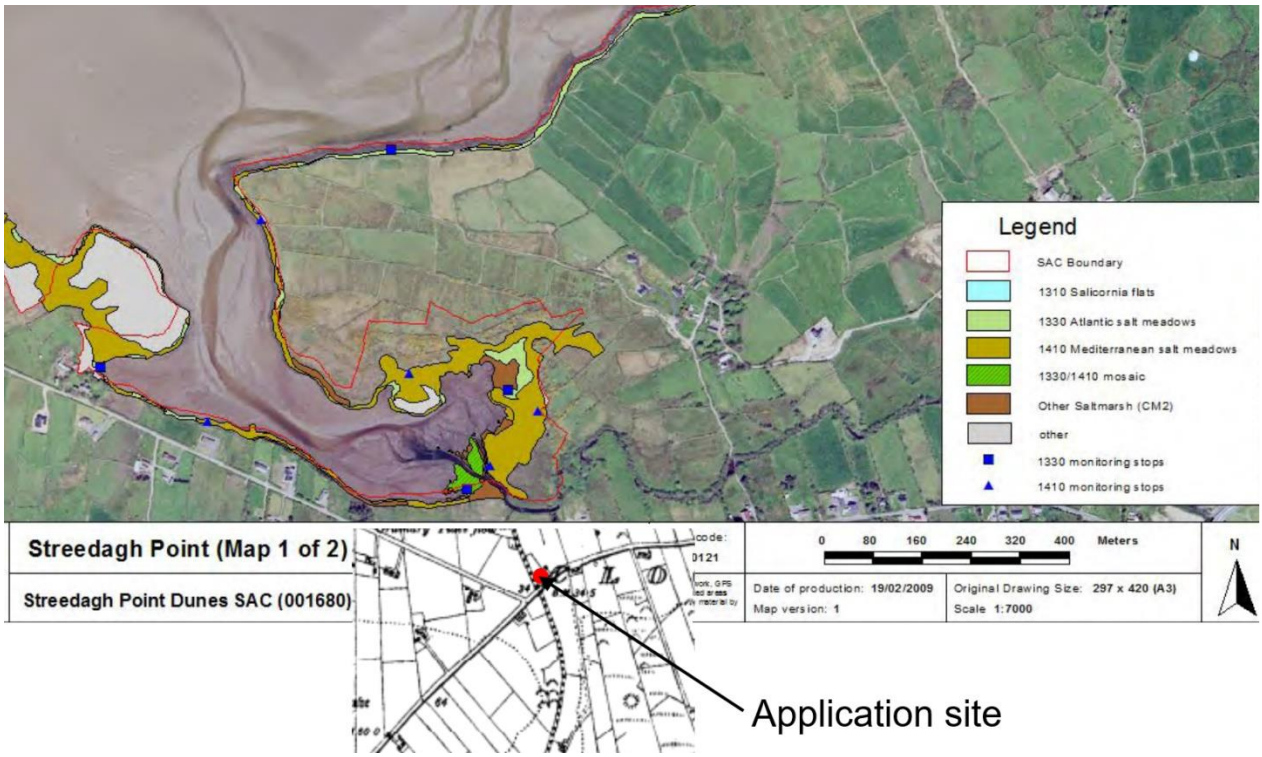
Trees 4 and 6 are located on an embankment that continues at the bank top beyond Compartment E. between the road and the embankment there is a continuous input slope from the site into the stream. This is vegetated by coarse grass, but none-the-less represents a potential input pathway.

Input slope from the road bridge

The Selection Features at risk are those that are submerged at some point in the tidal cycle.

Mudflats and sandflats not covered by seawater at low tide, Atlantic salt meadows (Glauco-Puccinellietalia maritimae) and Mediterranean salt meadows (Juncetalia maritimi).

McCorry and Ryle (2009) included the site in their inventory of saltmarshes. They identified and mapped the Selection Features Atlantic salt meadows (Glauco-Puccinellietalia maritimae) and Mediterranean salt meadows (Juncetalia maritimi):



McCorry and Ryle's saltmarsh distribution map in relation to the application site

Sheep-grazed salt meadow

Salt meadow sward

Potential for impacts during the build phase

Mudflat and saltmarsh fauna are sensitive to various pollutants that may be in use on a demolition site or a building site, including, but not limited to diesel probably stored on site for the plant. There is a risk of a large spill from an unmitigated site that could wash into the adjacent stream and thus impact upon mudflats and saltmarshes to the detriment of the N2K site.

Inputs of soil in the amounts that are likely to be generated are not a risk – indeed both sub-habitats rely upon external sediment inputs.

McCorry and Ryle also report that the sand flats attract moderate numbers of wintering waders and wildfowl in winter. These could include species protected under the SPA designations.

Potential for impacts during the operational phase

Although this is already a high nutrient habitat, over-enrichment as a result of sewage effluent could impact upon both saltmarsh and mudflat habitats, particularly in combination with other inputs directly into the inlet or into the Grange River, and the likely accumulation during the incoming tide cycle.

3.2 Connectivity between the site and the other N2K sites

There are no habitats on the application site that are used by birds protected by the SPA designations.

If Drumcliff Bay or Cumeen Strand birds used the mudflats beyond the Grange River, they would not be disturbed by activity on the site, which is adjacent to other occupied dwellings.

The distant SPA sites are separated from the application site by a long maritime passage. Dilution effects would make any inputs from the applications site undetectable at the SPA sites.

Thus the only connectivity between the Cloontyprocklis application site and the ecological function of the SPA sites being tested would be serious pollution damage to potential low tide feeding areas on the mudflats beyond the Grange River that overwintering estuarine birds may use as a staging post on their migration to designated SPA sites.

Stage 1 : Screening

Assessment of significance may be based on a number of factors, as outlined in EC (2001). Criteria that are relevant to the present study include:

- the character and perceived value of the affected environment;
- the magnitude, spatial extent and duration of the anticipated change;
- the resilience of the environment to cope with change; and
- confidence in the accuracy of predictions of change.

An effect is considered significant if an activity seriously disrupts the lifecycle (breeding, feeding, migration or resting behaviour) of an ecologically meaningful proportion of the population of the species.

In summary, any element of a plan or project that has the potential to affect the conservation objectives of a Natura 2000 site, including its structure and function, should be considered significant (EC, 2018).

Potential impact : Stage 1: Test of Likely Significance

Natura 2000 sites at potential risk:

Streedagh Point Dunes SAC
Inishmurray SPA
Ballintemple and Ballygilgan SPA
Ardboline Island and Horse Island SPA
Drumcliff Bay SPA
Cummeen Strand SPA

Description of the redevelopment:

- **Size and scale;**

Total site area – around 0.25 ha

- **Land-take;**

Existing dwelling house and garden plus coarse grassland.

- **Distance from Natura 2000 site or key features of the site;**

100m from Streedagh Point Dunes SAC, where saltmarsh habitats that are SAC selection features commence immediately.

- **Resource requirements (water abstraction etc);**

None that will impact upon the designated N2K sites

- **Emission (disposal to land, water or air);**

No atmospheric emissions other than emissions from works vehicles.

Excavation arisings that cannot be re-used on the site will be removed by a licensed carrier to an authorised disposal site. None will be dumped in ecologically valuable locations.

There could be outputs from the harmful outputs from the construction site that could impact upon the Streedagh Point Dunes SAC habitats. There would be sewage effluent output from the occupied dwelling.

- **Excavation requirements;**

New build foundations.

- **Transportation requirements;**

Delivery of all materials. This will be easy via the adjacent road.

- **Duration of construction, operation, de-commissioning etc;**

The project start date will be determined by the duration of the process of achieving full planning permission.

Is the proposal directly connected with or necessary to management of the site for conservation of N2K features?

No

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*:

- **Habitat loss;**

  None – no habitats that are functionally important to the maintenance of the N2K Features are implicated..

- **Reduction of habitat area;**

  None – there will be no reduction in the habitat area within the N2K designations.

- **Disturbance;**

  No potential for disturbance of feature bird species either on the designation site, or using habitats beyond the designation.

- **Habitat or species fragmentation;**

  There will be no fragmentation of any habitats either within or beyond the N2K designations, that could impact upon the N2K Feature species or habitats.

- **Reduction in species density;**

  No mechanism to cause reduction in species density has been identified.

- **Changes in key indicators of conservation value (e.g. water quality, climate change).**

  None.

Streedagh Point Dunes SAC	**Projected impact**
Narrow-mouthed Whorl Snail Vertigo angustior	No significant effect – this is a snail of damp dune slacks never inundated by the tide
Mudflats and sandflats not covered by seawater at low tide	At risk without mitigation
Perennial vegetation of stony banks	No significant effect – these stony banks are above the strand line.
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	At risk without mitigation
Mediterranean salt meadows (Juncetalia maritimi)	At risk without mitigation- inundated by the highest tides.
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)	No significant effect
Fixed coastal dunes with herbaceous vegetation (grey dunes)	No significant effect

Inishmurray SPA	**Projected impact**
Shag Phalacrocorax aristotelis (breeding)	No significant effect. This bird feeds predominantly in benthic habitats
Herring Gull Larus argentatus (breeding)	At risk without mitigation
Arctic Tern Sterna paradisaea (breeding)	At risk without mitigation
Barnacle Goose Branta leucopsis (over wintering)	No significant effect. Feeding habitats are above the high water mark

Ardboline Island and Horse Island SPA	**Projected impact**
Cormorant Phalacrocorax carbo (breeding)	No significant effect. This bird feeds predominantly in benthic habitats
Barnacle Goose Branta leucopsis (over wintering)	No significant effect. Feeding habitats are above the high water mark

Drumcliff Bay SPA	**Projected impact**
Sanderling Calidris alba (over wintering)	Potentially at risk without mitigation. No evidence is offered that there is no interchange between wintering birds using the mudflat off the proposal site and the SPA designated site.
Bar-tailed Godwit Limosa lapponica (over wintering)	
Wetlands (bird assemblage)	

Ballintemple and Ballygilgan SPA	**Projected impact**
Barnacle Goose Branta leucopsis (over wintering)	No significant effect. Feeding habitats are above the high water mark

Cummeen Strand SPA	**Projected impact**
Pale-bellied Brent Goose Branta bernicla hrota (over wintering)	Potentially at risk without mitigation. No evidence is offered that there is no interchange between wintering birds using the mudflat off the proposal site and the SPA designated site.
Oystercatcher Haematopus ostralegus (over wintering)	
Redshank Tringa totanus (over wintering)	
Wetland (bird assemblage)	

Describe any potential effects on the Natura 2000 site as a whole in terms of: interference with the key relationships that define the structure or function of the site	**Effect considered significant/non-significant: Finding of No significant effects Matrix**
Potential for catastrophic inputs of deleterious substances from the building site,, for example in the event of a full load from a diesel bowser being transferred to the SAC via the Grange River. Potentially significant but short term impacts	No significant effect with mitigation, otherwise the impact difficult to quantify
Potential for accumulation of high BOD effluent from a poorly functioning septic waste system	Potentially significant in combination with other loading. Potential for development of anoxic sediments.

Provide details of any other projects or plans that together with the project or plan being assessed could (directly or indirectly) affect the site.	**Provide details of any likely in-combination effects and quantify their significance -**
With mitigation it is not anticipated that the redevelopment will have any impact at all on the Natura 2000 sites. Given there will be no impact, then it follows that there will be no contribution to cumulative impacts.	No significant effect with mitigation

Is the potential scale or magnitude of any effect likely to be significant?	
Alone?	**Yes☒ No☐**
In-combination with other projects of plans?	**Yes☒ No☐**

List of Agencies Consulted: Provide contact name and telephone or email address.	None
Above consultee response.	NA

Conclusion: Could the proposal potentially have a significant effect on an N2K site if undertaken without mitigation in place?	**Yes☒ No☐**
IT HAS BEEN DETERMINED THAT AVOIDING POTENTIAL SIGNIFICANT IMPACTS UPON STREEDAGH POINT DUNES SAC RELIES UPON MITIGATION WORKS SO THE PROPOSAL CAN'T BE SCREENED OUT.	

Data collected to carry out the assessment

Who carried out the assessment?	Shaun Wolfe-Murphy
Sources of data	Site visit Clients photographs Client's engineering drawings, NPWS website
Level of assessment completed	Stage 1 – Screening

Stage 2 : Appropriate Assessment

This Appendix is submitted as Stage 2 of the assessment process (Appropriate Assessment) for the potential replacement dwelling.

The Stage 2 – Appropriate Assessment is being undertaken because the Stage 1 Screening stage failed to rule out potential significant effects integrity of the site with respect to the site structure, function and conservation objectives, arising from the proposal upon an N2K (or a proposed/candidate N2K or Ramsar site) either alone or in combination with other projects and plans.

Mitigation measures are proposed to alleviate the potential significant impacts identified in the screening report.

The likely effectiveness of the mitigation measures is assessed so as to enable a clear statement as to whether significant residual impacts or uncertainty would remain.

Build-phase Mitigation

During the build phase standard good environmental practice will reduce the risk of inputs into the adjacent stream to negligible. If permission is granted, the tendering building contractors will be made aware of these requirements in advance of offering a price to complete the build – thus the practises will be factored in to the cost.

These practices will include:

Observance of a 10 m buffer along the streamside above the streamside embankment where there shall be no storage of excavated soil, or any building materials or hazardous substances, no concrete mixing or washout, and in which any required excavation or stripping shall only be undertaken once suitable barriers to soil inputs into the adjacent stream are in place – The site environmental manager will be responsible for ensuring that the installed measures are adequate, but as a minimum this will include:

a) Blocking the existing gully and culvert from the demolition site to the stream

b) Silt-fencing in the location indicated below.

The minimum exposed height of the fence will be 60cm. The base of the fence fabric to be installed in a cut slit to a depth of at least 10cmm deep.

Adequate length support posts to a depth (minimum 400mm) appropriate for the site conditions will be installed on the stream side of the fabric. If necessary the fence will be supported by hog rings from a high tensile wire fixed to the support posts.

That at least a 1 m strip of unmanaged vegetation will be retained at the top of the slope to the stream.

Soil that is to be re-used on site will be stored close to the rear boundary and not close to the bank top

Storage and handling of diesel and other oils will adhere to the following:

> Refuelling to be from a bowser with drip tray or tank situated in an appropriately bunded designated refuelling area located on a level surface, and by personnel that have been through the site induction. Fuel bowsers used on the site will have the capability to transfer fuel by pump. During fuel transfers, spill kits will be on hand and absorbent mats will be available to capture minor drips.

Diesel (or other oils) that has collected in a bund, probably mixed with rain water, must be handled and disposed of in accordance with the Waste Management Act 1996, the Waste Management (Amendment) Act 2001 and the Protection of the Environment Act 2003.

Waste segregation area will be established beyond the 10 m buffers, utilising containers of an appropriate design to ensure that no waste can escape.

Sewerage effluent from the site office and welfare facilities will be removed from the site if no sewer connection is available.

All plant used on site will be kept in good mechanical order with no oil or hydraulic fluid leaks.

There shall be no disposal of waste directly into the adjacent stream or into the storm drain system.

The risk of cement entering the ditch or storm drain system in runoff from the construction site will be controlled.

Concrete and cement mixing areas will be sited at least 10m away from the adjacent stream.

The environmental manager will be responsible for creating a mechanism to contain any concrete washout, in a container in a designated concrete washout area. Settled cement will be safely disposed of off-site.

Storage of hazardous material to adhere to the following:

Materials storage areas will be set up and managed.

All hazardous chemicals shall be stored within a level works compound.

All hazardous chemicals shall be stored in a designated lockable storage area.

Bunding should be of sufficient capacity to hold 25% of the total of the containers or 10% of the largest container, whichever is greater.

Planning for emergencies:

Appropriate spill kits will be kept on site in strategic locations such as close to refuelling areas, chemical handling areas or waste storage areas.

Staff will be trained in their use deployment of the spill kits, and the appropriate response to accidental spills shall be included in site inductions.

Design mitigation of Impacts during occupancy

Sewerage output from the replacement dwelling will employ a Package Treatment System

The selected model is a Tricel Novo Package Plant with Tricel Puraflo Tertiary Treatment (Tricel 2020).

This is a 96% BOD reduction unit. In the UK, the final effluent could be piped directly into the adjacent watercourses. Here this could be done without risk of significant impact upon saltmarsh or mudflat habitat, however in the Republic of Ireland this is not allowable, so instead. The final effluent will be sent to a percolation area/drainage field.

This 'belt-and-braces' approach appears to have caused some confusion, but will isolate the stream and the marine inlet from all risk of sewage inputs.

In Combination Impacts

The potential impacts of the [proposal have to be assessed in combination with predicted future new impacts (not with pressures or impacts that were already current when the Streedagh Dunes site was designated in 2018).

With mitigation in place it is not anticipated that this proposed development could have any impact upon the N2K qualifying interests so in-combination effects are not relevant.

Appropriate Assessment Scope

The Screening failed to rule out potentially significant negative impacts on the mudflats and saltmarshes of the nearby Streedagh Point Dunes SAC, with potential for 'knock on' impacts upon birds that possibly also use SPA designated sites within 15 km.

- Harmful inputs into the Streedagh Point Dunes SAC via the Grange River, and possibly upon Feature birds that use the mudflats and are protected by more distant SPA designations.

An Appropriate Assessment is required for these potential impacts.

A1. Harmful inputs into Streedagh tidal inlet via the Grange River

Site(s) + Qualifying Interest at risk:	**Streedagh Point Dunes SAC** Mudflats and sandflats not covered by seawater at low tide Atlantic salt meadows (Glauco-Puccinellietalia maritimae) Mediterranean salt meadows (Juncetalia maritimi) **Inishmurray SPA** Herring Gull Larus argentatus (breeding) Arctic Tern Sterna paradisaea (breeding) **Drumcliff Bay SPA** Sanderling Calidris alba (over wintering) Bar-tailed Godwit Limosa lapponica (over wintering) Wetlands (bird assemblage) **Cummeen Strand SPA** Pale-bellied Brent Goose Branta bernicla hrota (over wintering) Oystercatcher Haematopus ostralegus (over wintering) Redshank Tringa totanus (over wintering) Wetland (bird assemblage)

Development phase at which risks arise:
Construction and subsequent occupation
Additional data/evidence required to assess the risk:
None. No attempt has been made, or will be made to determine the spatial pattern or feeding behaviour of the birds using the SPAs within the 15 km radius. It is more economical to adopt the precautionary principal and assume that birds do use the mudflat areas within Streedagh Point Dunes SAC that are vulnerable to impact.

B1: Assessment of Mitigation Measures

Detail of mitigation measures included in the proposal:	
Measure:	Build phase mitigation as detailed above
Measure:	Disposal of sewage to main or to a 96% BOD package treatment plant

How the measures will avoid or reduce the adverse effects on site integrity*:
The risk of inputs of deleterious material in harmful quantity via the Grange River reduced to negligible
How the measures will be implemented and by whom:
By the demolition and building contractors

Can we be confident that the measures will in fact be implemented?:
The prescribed measures can be adopted as planning conditions. Evidence of mitigation (mainly photographs) can be archived
Time-scale, relative to the project when they will be implemented:
Good environmental practice throughout the demolition and rebuilding phases. Safe management of sewage throughout the design life.
Can we be confident in their likely success?:
Yes – risks are low and easily mitigated against.

* As defined by Case C-258/11, paragraph 48: 'Article 6(3) of the Habitats Directive must be interpreted as meaning that a plan or project not directly connected with or necessary to the management of a site will adversely affect the integrity of that site if it is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site'… thus it exclusively relates to the site selection features. (Commission Notice 2018).

C : Assessment of Site Integrity

Overall N2K site Objectives:
To maintain each feature in favourable condition*

* Favourable condition defined in the published Conservation Objectives document as meeting 'the target condition for an interest feature in terms of the abundance, distribution and/or quality of that feature within the site' The target conditions are in turn defined by Common Standards Monitoring (CSM).

Qualifying interest at Risk:			
C1	Streedagh Point Dunes SAC : Mudflats and sandflats not covered by seawater at low tide		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
The permanent habitat area is stable or increasing subject to natural processes Conserve the following community types in a natural condition: Sand with Pygospio elegans and Cerastoderma edule community complex; Mobile sand with Haustorius arenarius and polychaetes community complex			
Condition Assessment:			
338ha overall			
Residual impact reasonably anticipated after mitigation:			
None			

Qualifying interest at Risk:			
C2	Streedagh Point Dunes SAC : Atlantic salt meadows (Glauco-Puccinellietalia maritimae)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
Area stable or increasing subject to natural processes, including erosion and succession. No decline or change in habitat distribution, subject to natural processes. Maintain natural circulation of sediments and organic matter, without any physical obstructions Maintain creek and pan structure, subject to natural processes, including erosion and succession Maintain natural tidal regime Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession. Maintain structural variation within sward Maintain more than 90% area outside creeks vegetated Maintain range of sub-communities with typical species listed in (McCorry and Ryle, 2009) Spartina anglica prevented from establishing here			
Condition Assessment:			
12.82ha of habitat Distribution/structure as per McCorry and Ryle Currently no physical barriers to sediment conveyor Natural tidal regime Various levels of cattle grazing intensity leading to diverse structure Locally severe poaching by cattle noted Spartina absent in 2009			
Residual impact reasonably anticipated after mitigation:			
None			

Qualifying interest at Risk:			
C3	Streedagh Point Dunes SAC : Mediterranean salt meadows (Juncetalia maritimi)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
Area stable or increasing subject to natural processes, including erosion and succession. No decline or change in habitat distribution, subject to natural processes. Maintain natural circulation of sediments and organic matter, without any physical obstructions Maintain creek and pan structure, subject to natural processes, including erosion and succession Maintain natural tidal regime Maintain range of coastal habitats including transitional zones, subject to natural processes including erosion and succession. Maintain structural variation within sward Maintain more than 90% area outside creeks vegetated Maintain range of sub-communities with typical species listed in (McCorry and Ryle, 2009)			

	Spartina anglica prevented from establishing here
Condition Assessment:	
	12.82ha of habitat Distribution/structure as per McCorry and Ryle Currently no physical barriers to sediment conveyor Natural tidal regime Various levels of cattle grazing intensity leading to diverse structure Locally severe poaching by cattle noted Spartina absent in 2009
Residual impact reasonably anticipated after mitigation:	
	None

Qualifying interest at Risk:			
C4	Inishmurray SPA : Herring Gull Larus argentatus (breeding)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Herring Gull breeding population is maintaining itself on a long-term basis as a viable component of its natural habitats. The natural range of breeding Herring Gull is neither being reduced nor is likely to be reduced for the foreseeable future. There is, and will probably continue to be, a sufficiently large habitat to maintain the population of breeding Herring Gull on a long-term basis.		
Condition Assessment:			
	Not recorded		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C5	Inishmurray SPA : Arctic Tern Sterna paradisaea (breeding)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Arctic Tern breeding population is maintaining itself on a long-term basis as a viable component of its natural habitats. The natural range of breeding Arctic Tern is neither being reduced nor is likely to be reduced for the foreseeable future. There is, and will probably continue to be, a sufficiently large habitat to maintain the population of		

	breeding Arctic Tern on a long-term basis.
Condition Assessment:	
	113 pairs
Residual impact reasonably anticipated after mitigation:	
	None

Qualifying interest at Risk:			
C6	Drumcliff Bay SPA : Sanderling Calidris alba (over wintering)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Long term population trend stable or increasing. No significant decrease in the range, timing or intensity of use of areas by Sanderling, other than that occurring from natural patterns of variation		
Condition Assessment:			
	278 birds		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C7	Drumcliff Bay SPA : Bar-tailed Godwit Limosa lapponica (over wintering)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Long term population trend stable or increasing. No significant decrease in the range, timing or intensity of use of areas by Bar-tailed Godwit, other than that occurring from natural patterns of variation		
Condition Assessment:			
	172 birds		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C8	Drumcliff Bay SPA : Wetland (bird assemblage)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 1843 hectares, other than that occurring from natural patterns of variation		
Condition Assessment:			
	1,843 ha		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C9	Cummeen Strand SPA : Pale-bellied Brent Goose Branta bernicla hrota (over wintering)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Long term population trend stable or increasing. No significant decrease in the range, timing and intensity of use of areas by light-bellied Brent goose, other than that occurring from natural patterns of variation.		
Condition Assessment:			
	232 birds		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C10	Cummeen Strand SPA : Oystercatcher Haematopus ostralegus (over wintering)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Long term population trend stable or increasing. No significant decrease in the range, timing and intensity of use of areas by Oystercatcher, other than that occurring from natural patterns of variation.		
Condition Assessment:			

	891 birds
Residual impact reasonably anticipated after mitigation:	
	None

Qualifying interest at Risk:			
C11	Cummeen Strand SPA : Redshank Tringa totanus (over wintering)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	Long term population trend stable or increasing. No significant decrease in the range, timing and intensity of use of areas by Redshank, other than that occurring from natural patterns of variation.		
Condition Assessment:			
	501 birds		
Residual impact reasonably anticipated after mitigation:			
	None		

Qualifying interest at Risk:			
C12	Cummeen Strand SPA : Wetland (bird assemblage)		
Qualifying Feature?	Yes	**Grade**	NA
Feature objectives:			
	The permanent area occupied by the wetland habitat should be stable and not significantly less than 1732 hectares, other than that occurring from natural patterns of variation		
Condition Assessment:			
	1732 ha		
Residual impact reasonably anticipated after mitigation:			
	None		

D1: Assessment of In Combination Effects

Are there any potential residual non-significant effects on site integrity?	☒ **No** ☐ **Yes**
If yes, are there additional projects to be considered?	☒ **N/A** ☐ **No** ☐ **Yes**

If yes

Additional project identification:
Potential non-significant effects on site integrity:

E: Outcome of Appropriate Assessment

Site:	**Appropriate Assessment Outcome:**
Streedagh Point Dunes SAC	☒ No adverse effect on site integrity ☐ Insignificant adverse effect on site integrity ☐ Significant potential adverse effect on site integrity
Inishmurray SPA	☒ No adverse effect on site integrity ☐ Insignificant adverse effect on site integrity ☐ Significant potential adverse effect on site integrity
Ballintemple and Ballygilgan SPA	☒ No adverse effect on site integrity ☐ Insignificant adverse effect on site integrity ☐ Significant potential adverse effect on site integrity
Drumcliff Bay SPA	☒ No adverse effect on site integrity ☐ Insignificant adverse effect on site integrity ☐ Significant potential adverse effect on site integrity
Cummeen Strand SPA	☒ No adverse effect on site integrity ☐ Insignificant adverse effect on site integrity ☐ Significant potential adverse effect on site integrity

Summary and conclusion

A replacement dwelling is proposed at Cloontyprocklis beside a small feeder stream that outfalls into the Grange River at the boundary of the Streedagh Point Dunes Special Area of Conservation (SAC code 001680) 130 m downstream of the proposal site.

The proposal is the subject of a Natura Statement.

There are 10 Natura 2000 (N2K) sites within the 15 km likely zone of impact. Of these, four have been excluded from the detailed assessment of the potential for adverse effects on the basis that there is no functional connectivity between the proposal site and the designated area and no possibility of significant impacts upon the Special Conservation Interests of the designated sites.

The Natura Impact Statement therefore only relates to:

Streedagh Point Dunes SAC
Inishmurray SPA
Ballintemple and Ballygilgan SPA
Ardboline Island and Horse Island SPA
Drumcliff Bay SPA
Cummeen Strand SPA

Of these Streedagh Point Dunes SAC is the most vulnerable.

The CJEU ruling (C-323/17 of 12 April 2018 People Over Wind and Peter Sweetman v Coillte Teoranta) determined that 'it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on that site'. The mitigation to avoid impacts upon the designation **must not** be advanced in the Appropriate Assessment. To do so would not be compliant with the ruling.

The Stage 1 screening found that in the absence of mitigation, there was potential for deleterious inputs into the Grange River via the stream beside the development, and that a worst case scenario spillage could lead to significant impacts upon at least some of the Special Conservation Interests of Streedagh Point Dunes. Viz a viz:

Narrow-mouthed Whorl Snail Vertigo angustior
Mudflats and sandflats not covered by seawater at low tide
Perennial vegetation of stony banks
Atlantic salt meadows (Glauco-Puccinellietalia maritimae)
Mediterranean salt meadows (Juncetalia maritimi)
Shifting dunes along the shoreline with Ammophila arenaria (white dunes)
Fixed coastal dunes with herbaceous vegetation (grey dunes)

Of these, any that could be subject to tidal inundation are at risk – for example were there to be a catastrophic spill of diesel into the stream beside the proposed demolition/construction site.

Additionally Mudflats and sandflats not covered by seawater at low tide could be important to birds protected under the SPA designations (birds that use the SPA designated sites are protected beyond as well as within the SPA boundaries).

With no potential for disturbance of the breeding and overwintering birds protected by the SPAs, no other mechanism for adverse impacts upon the N2K Special Conservation Interests was identified.

Mitigation proposed in the Appropriate Assessment section reduces the potential risk of significant impacts upon the SAC allows the appropriate Assessment to conclude that with the mitigation in place, that there would be no adverse effect upon the site integrity of the Streedagh Dunes habitats. By extension, birds protected under the SPA designations that may also use Streedagh dune SAC habitats, would not be impacted either.

It was not considered necessary to collect data relating to the extent of use of the SAC e.g. for foraging or on passage.

References

Environment, Heritage and Local Government (2010 revision) *Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities* Legislation Unit, National Parks and Wildlife Service

Fossitt, J.A. (2000) *A guide to Habitats in Ireland*. The Heritage Council.

McCorry, M. and Ryle, T. (2009) *Saltmarsh Monitoring Project 2007-2008*. Volume 4 of a Report to National Parks and Wildlife Service, Contract reference D/C/227.

NPWS (2013) *Site Synopsis: Streedagh Point Dunes SAC 001680*. National Parks and Wildlife Service.

NPWS (2015) *Conservation Objectives: Streedagh Point Dunes SAC 001680*. Version 1. National Parks and Wildlife Service.

Tricel (Killarney) (2020) *Tricel Site Recommendation Report: Tricel Novo Package Plant with Tricel Puraflo Tertiary Treatment*. Report No: SA6_SO_7842 to applicant.

Appendix 1: Other Potential impacts and recommendations

A round up of potential impacts on habitats and species not protected by the listed Natura 2000 (N2K) designations:

Otters:

No damage to Otter holts will occur. There is no evidence that the site, or the adjacent stream is important to Otters. Negligible impact predicted.

Badgers:

No damage to Badger setts will occur. Badgers currently forage across the site and this behaviour may be impacted. If the curtilage is fenced, include a Badger gate:

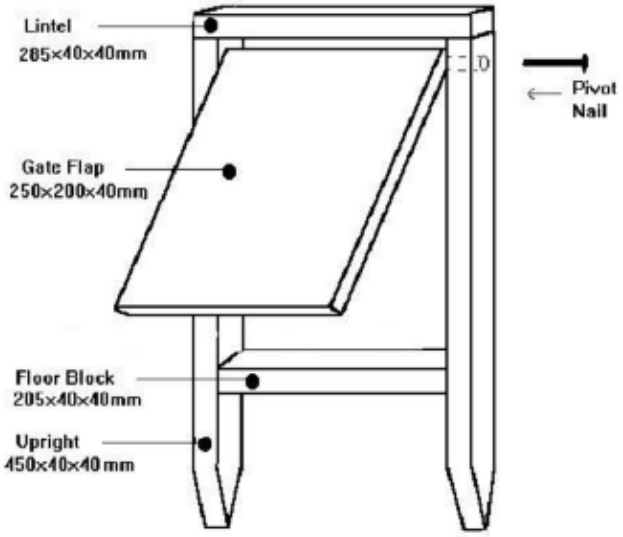


Figure 1 – Badger gate (From Natural England's Technical information note TIN026).

The flap is intended to deny access to Rabbits – if this is not an issue for this site it can be omitted.

Bats:

Potential impacts upon foraging, commuting or roosting bats.

Maintain a dark corridor down the Compartment H stream during the build phase and the subsequent occupation of the house – no illumination of streamside trees.

Maintain structural continuity of tree cover along the Compartment H stream.

At least trees 3, 4 and 12 will be removed to facilitate the build. Tree 4 has been identified as having Potential Roost Features. Mainly in the slit timber caused by crown reduction work,

Tree 4

Removal of this tree could pose a risk to roosting bats, however, However his tree is very close to the existing buildings that were subject to the Wild on Foot bat emergence survey. Bats were observed emerging from other known roosts nearby, and it is likely that an emergence from this tree would have been recorded.

Fell this tree with caution. Inspect deep fissures beforehand.

If the parapet of the road bridge is repaired, measures must be taken to ensure no roosting bats will be illegally killed. A camera trap system trained in sequence on all wall area with gaps leading to significant cavities in sequence, will be a little time consuming but be more cost-effective than a specialist emergence/return survey.

The streamside Sycamore would be a likely location for a bat box to become occupied.

Habitats

Habitats on within the site footprint are not of high intrinsic interest. The streamside is of higher value but is likely not to be negatively impacted by the proposed development.

To increase the biodiversity value (naturalness and diversity), remove and destroy Montbretia (Crocosmia x crocosmiiflora) and focus any under-planting planting here on native Irish species such as Wood Anemone (Anemone nemorosa), Bluebell (Hyacinthoides non-scripta), Common Valerian (Valeriana officinalis), Red Campion (Silene dioica), and Greater Stitchwort (Stellaria holostea).

Invasive species

There are no Third schedule species on the site and no reason why a development here would introduce any.

The Montbretia (Crocosmia x crocosmiiflora) that is already on site has been spreading downstream and has already reached the Grange River. A replacement dwelling would have no impact in terms of increasing the spread rate, and with management could lessen the current distribution.

There are currently no species that would be likely to create a problem on salt meadows on the site. Cord-grasses (Spartina spp.) would not grow on the application site.

Sea-buckthorn (Hippophae rhamnoides) would be illegal to plant.

Avoid introducing H. x franciscana, normally sold as ‘Blue Gem’ into the new garden. This would have a chance of establishing in the Common Reed (Phragmites australis)/Red Fescue (Festuca rubra) ungrazed salt meadow.

Appendix 2: Required Mitigation

Install the silt fence before the commencement of any other work.

The integrity of the spill fence and the existing embankment along the streamside must be the subject of regular inspections and repair undertaken if it is the stream is not considered to be suitably isolated.

Observe the 10 m buffer – there must be no storage of diesel, cement, oils or other potential harmful substances within the buffer.

There must be no refuelling of plant within the buffer.

There must be no concrete washout in the buffer.

These must be no disposal or waste of any kind into the adjacent stream.

Any diesel stored on site must be in a double skinned tank or be appropriately bunded. It there is a storage tank or bowser, it must be carefully located in a place where it is not at risk of impact from machinery used on the site.

Appropriate spill kits must be kept one site, and the demolitions/construction workers must be familiar with their deployment.

An emergency spill protocol must be developed and displayed on the site.