



EXTENSION OF NORTHERN CYCLING ROUTE TO SCRAGH BOG

Screening for Appropriate Assessment

Prepared on behalf of;

Westmeath County Council

by;

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OAKWIN LTD

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1 Introduction

1.1 Overview

Maurice O'Connor has recently been commissioned by Westmeath County Council to provide ecological consultancy services for the development of an extension of the Northern Cycling Route to Scragh Bog near Mullingar, Co. Westmeath. A full description of the proposed cycleway is given in Section 2.

1.2 Project Rationale

The proposed development is Extension of Northern Cycling Route to Scragh Bog which comprises of an extension of the cycleway at Cullion Levington with a combination of primarily local roads but also off-road routes terminating at Scragh Bog, where the existing car park will be expanded and upgraded. The propose of the project is to provide a scenic link from Mullingar through the County Westmeath countryside along existing suitable local roads while also utilising possible off-road routes that will also link up tourist attractions and facilities in North Westmeath which includes Lakes, Historical Sites and Scragh Bog.



Figure 1 Extension of Northern Cycling Route to Scragh Bog

1.3 Requirement for Appropriate Assessment

Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 437 of 2011) (as amended) transposes Article 6 of the Habitats Directive (92/43/EEC) into Irish law. The regulations require that where a public authority wishes to progress a project (which is not directly connected with or necessary to the management of the site as a European Site), a screening for Appropriate Assessment of the project must be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.

The Regulations require that a screening for Appropriate Assessment must be carried out before a decision to undertake the project is taken.

1.3.1 European Sites (European Sites)

In accordance with the requirements of the Habitats Directive (92/43/EEC) and the Birds Directive (2009/147/EC), Member States have identified a network of sites of conservation importance, hosting habitats and/or species identified in the Directives as needing to be either maintained at or returned to favourable conservation status. These sites are known as the European network and in Ireland, European sites comprise areas designated as Special Areas of Conservation (SACs), candidate Special Areas of Conservation (cSACs), Special Protection Areas (SPAs) and candidate Special Protection Areas (cSPAs).

These Directives require that where a project is likely to have a significant effect on a European Site, while not directly connected with or necessary to the nature conservation management of the site, it shall be subject to 'Appropriate Assessment' to identify any implications for the site in view of the site's conservation objectives. Specifically, Article 6(3) of the Habitats Directive states:

*"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to **appropriate assessment** of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public".*

The proposed development is for the Extension of Northern Cycling Route to Scragh Bog which comprises of an extension of the cycleway at Cullion Levington, Mullingar, Co. Westmeath with a combination of primarily local roads but also off-road routes terminating at Scragh Bog, where the existing car park will be expanded and upgraded. **The application is not directly connected with or necessary to the management of any European sites and must therefore be subjected to screening for Appropriate Assessment.**

This report is a screening for Appropriate Assessment for the proposed development of the Extension of Northern Cycling Route to Scragh Bog and is carried out in accordance with the requirements of the European Communities (Birds and Natural Habitats) Regulations 2011

(S.I. 437 of 2011) (as amended). The intention of this screening for Appropriate Assessment is to determine whether the proposed development is likely to have a significant effect on a European site(s), either alone or in combination with other plans or projects. Where significant effects are determined to be likely the proposed works are statutorily required to be subjected to Appropriate Assessment. This screening for Appropriate Assessment has been carried out in accordance with the following European Commission Guidance:

- EC (2000) 'Managing European Sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC';
- EC (2001) 'Assessment of plans and projects significantly affecting European sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC'.

1.4 Statement of Authority

1.4.1 Maurice O Connor

This AA Screening Report has been prepared by Maurice O Connor, Environmental Consultant. Maurice holds BSc (Hons) degree in Wildlife Biology from Institute of Technology Tralee and an MSc in Ecological Assessment from National University of Ireland Cork (UCC). Maurice is an experienced ecological consultant with over 6 years' professional experience in Ireland, working independently and as an employee within consultancy. He has strong generalist ecological field skills in terrestrial and riparian environments and through his experience can demonstrate undertaking a range of ecological surveys including habitat, invasive and protected species survey, delivering initial site appraisals and identification of ecological constraints to inform Ecological Impact Assessments (EclA) and AA. Maurice has undertaken ecological assessments and surveys on a variety of project types (e.g. road schemes, waste, water, energy and housing) involving survey, mitigation and enhancement. During his time as an environmental consultant, Maurice has completed numerous AA assessments for both plans and projects.

2 Description of the Proposed Development and Receiving Environment

2.1 Guidance

Both EU and national guidance exists in relation to Member States fulfilling their requirements under the Habitats Directive, with particular reference to Article 6(3) and 6(4) of that Directive. This AA has been undertaken in line with the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities. DoEHLG (2010);
- Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPWS 1/10 and PSSP 2/10. National Parks and Wildlife Service (NPWS) (2010);
- Assessment of plans and projects significantly affecting European sites
Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission (2001);
- Managing European sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. European Commission (2000a);
- Communication from the Commission on the Precautionary Principle. European Commission, (2000b); and
- Assessment of plans and projects significantly affecting European sites:
Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. Office for Official Publications of the European Communities, Luxembourg. European Commission (2002).

Definitions of conservation status, integrity and significance used in this assessment are defined in accordance with '*Managing European sites: The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC*' (EC, 2000):

- The conservation status of a natural habitat is defined as the sum of the influences

acting on a natural habitat and its typical species that may affect its long-term natural distribution, structure and functions as well as the long-term survival of its typical species;

- The conservation status of a species is defined as the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its population;
- The integrity of a European Site is defined as the coherence of the site's ecological structure and function, across its whole area, or the habitats, complex of habitats and/or populations of species for which the site is or will be classified;
- Significant effect should be determined in relation to the specific features and environmental conditions of the protected site concerned by the plan or project, taking particular account of the site's conservation objectives.

2.2 Description of the Proposed Development

The proposed development is not connected with or necessary to the management of any European site. In 2016, Westmeath Co. Council engaged a consultant to undertake a feasibility study to investigate the potential development of a cycle route loop from Mullingar to Fore.

The purpose of the cycle loop is to provide a scenic link from Mullingar through the County Westmeath countryside along existing suitable local roads while also utilising possible off road routes.

In 2021 Westmeath Co. council obtained funding through Outdoor Recreation Infrastructure Scheme M2 to construct a section of this Cycleway that would connect from the existing Cycleway at Levington Cross on the old Longford Road to the Carpark at Scragh Bog access. The funding also included provision for the expansion, surfacing and regularising of the carpark at Scragh Bog.

The project can be divided into three distinct elements:

1. Provision of cycle track through Council Lands along the L1773;
2. Provision of signage along the local roads linking to Scragh bog;
3. Upgrade, expansion and resurfacing of existing car park to Scragh bog.

2.2.1 Provision of cycle track through Council owned lands along L1773

The first section of the proposed new Cycle way will be a continuation from where the existing cycle track ends on the L1773 on approach to the level crossing gates at Cullion Levington. Crossing over the existing level crossing, the extended route will continue along the L5813 road for approximately 300 metres where it will then divert off road into Council owned lands. From here the new cycle track will traverse through Council Lands for approximately 380 metres.

Works will involve the formation of 2 no. openings in the existing hedge row to include installation of staggered gateway entrances at either end. A new post and rail fence with wire mesh, including native hedging, will be installed on both sides of the new cycle way along this section. A 3m wide cycleway will be constructed within these lands complete with Macadamed surface and markings. This section of off road cycle way finishes opposite the junction of the L1773 and the L5706 where the cycle track moves onto local roads from here all the way to Scragh bog.

2.2.2 Provision of signage along the local roads linking to Scragh bog

Signage will be provided along the local roads 3.6km linking from the junction of the L1773 and the L5706 to the carpark entrance at Scragh bog to indicate to road users the presence of cyclists and to direct cyclists along the intended cycle trail. It is intended that cyclist will share the existing local roads along this section with other road traffic without the provision of a dedicated cycle lane.

2.2.3 Upgrade, expansion and resurfacing of existing car park to Scragh bog

The current car park arrangement at Scragh bog is a stoned area with no regulated parking arrangements. The current Capacity caters for up to a maximum of nine cars with any additional cars being forced to park along the grass verges on approach.

It is proposed to increase the capacity of this carpark cater for up to 18 cars along with the provision of a bicycle set down area/bike stand.

Initial works will require the removal by permit of a limited number of Coillte owned coniferous trees on the South-western side of the existing parking area. A perimeter post and

rail fence will be provided around the new carpark area incorporating pedestrian access point to the Scragh bog Amenity.

The new carpark area will be excavated to formation and granular fill (100mm down) installed and compacted to include drainage measures to deal with carpark surface water run-off to local water course. Drainage measures will include the installation of a petrol interceptor. The entire carpark area will be blinded with well compacted Clause 804 stone and then surfaced with Clause 942 SMA to depth of 50mm. Car Park lining and appropriate road markings and signage will be installed.

Several bicycle stands will be installed and 2 no. picnic benches.

2.3 Site Description and Receiving Environment

The proposed development is located from Cullion Levington to Scragh Bog, Mullingar, Co. Westmeath. Land use in the surrounding area is predominantly farmland, consisting mostly of improved agricultural land with some arable fields. The end of the cycleway is located at the start point of Scragh Bog Car Park an amenity walk which passes through coniferous woodland before entering the raised bog and alkaline fen itself. The proposed development consists of a cycle trail along public roads starting at Cullion Levington, namely the L1773 off road, L5706, an unclassified road and L5708 on road. The cycleway begins approximately 100m from the Proposed Natural Heritage Area (pNHA) of the Royal Canal (Site Code: 002103) and 650m from the Lough Owel pNHA (000688), and ends 450m from Scragh Bog pNHA (000692). The nearest European Sites are:

- Approximately 410m from Lough Owel SAC (Site Code: 000688)
- Approximately 410m from Lough Owel SPA (Site Code: 004047)
- Approximately 440m from Scragh Bog SAC (Site Code: 000692)

No Annex I habitats or Annex II species were recorded within or immediately surrounding the site during the site survey.

2.3.1 Elements of the Project with Potential for having Significant Effects

There is potential for pollution of watercourses due to sediment loading or a pollution event from contaminants entering the watercourses. The location where this is most likely is the

proposed expanded carpark, where felling operations are needed. The effect could be compounded as the area into which the carpark is being extended is conifer plantation. Felling operations can lead to brash or needles entering a watercourse, loss of soil integrity that is prone to runoff and new drainage measures, all of which can accelerate the introduction of sediment and nutrient pollution into a local watercourse.

2.4 Baseline Environmental Condition

2.4.1 Overview of Baseline Data

The proposed development is located from Cullion Levington to Scragh Bog, Mullingar, Co. Westmeath. Land use in the surrounding area is predominantly farmland, consisting mostly of improved agricultural land with some arable fields. The end of the cycleway is located at the start point of Scragh Bog Trail Head, an amenity walk, which passes through coniferous woodland before entering the raised bog and alkaline fen itself. Acidic raised bog, alkaline fen and transitional areas between them are all found at Scragh Bog, which provides habitat for a collection of uncommon and rare plants that qualifies the area being of international importance. The proposed development consists of a cycle trail along public roads starting at Cullion Levington, namely the L1773, L5706, an unclassified road and the L5708. Habitats recorded within the site and immediate area are discussed in detail in below and represented in a habitat map.

The cycleway begins approximately 100m from the Proposed Natural Heritage Area (pNHA) of the Canal (Site Code: 002103) and 650m from the Lough Owel pNHA (000688) and ends 450m from Scragh Bog pNHA (000692). There are several other European Sites within the wider vicinity of the proposed cycleway and these are shown in Figure 3.

2.4.2 Habitats

The assessment of protected species and habitats and/or invasive species were undertaken in line with the following guidelines:

- Chartered Institute of Ecology and Environmental Management (CIEEM, 2017). Guidelines For Preliminary Ecological Appraisal. Second Edition.
- Fossitt, J. (2000). Guide to Habitats in Ireland. The Heritage Council.

- NRA (2010). Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads.

A detailed walkover of the site was carried out on July 8th 2021 by Envirico ecologists. Habitats and flora within the site were classified using the Heritage Council's Guide to Habitats in Ireland (Fossitt, 2000). Within each habitat, dominant and abundant plant species and indicator species were recorded. A description of the habitats within the vicinity of the site boundary and the immediate surrounding area is presented hereunder. A habitat map is presented in Figure 2 which shows the habitats present within the footprint of the proposed development.

2.4.2.1 Improved Agricultural Grassland (GA1)

Vast majority of surrounding land is improved agricultural grassland and is principally used for grazing. Some fields were observed being used for haylage or silage.

2.4.2.2 Hedgerows (WL1)

Laurel hedging occurs south of the L5708, opposite the proposed carpark. The hedging consists of Laurel, Beech and ornamental shrubs. A mixture of Sycamore, Ash and Beech hedgerows occur along the southern half of the Togherstown unclassified road and continuing along the L5706 until the N4 intersection.

2.4.2.3 Treelines (WL2)

Treelines were observed occasionally as field boundaries in association with hedgerows (WL1). The N4 intersection is mainly surrounded by treelines consisting of a mix of Cypress, Larch, Sitka Spruce, Sycamore and Laurel.

2.4.2.4 Conifer Plantation (WD4)

A conifer plantation occurs at the site of the proposed carpark and consists of Sitka Spruce. It gradates into Raised Bog (PB1)/Rich Fen and Flush (PF1)/Transition Mire and Quaking Bog (PF3).

2.4.2.5 Stone Walls and Other Stonework (BL1)

Stone walls occur commonly along the proposed route. There is a section of cut stone wall north of the railway crossing that is probably part of the original railway works.

2.4.2.6 Buildings and Artificial Surfaces (BL3)

Artificial surfaces and buildings appear intermittently on both sides of the proposed cycleway. The border of the carpark contains some Laurel, Ash, Whitethorn & Beech.

2.4.2.7 Other Habitats

Small instances of Arable Crops (BC1), Drainage Ditches (FW4) and Amenity Grassland (GA2) were also recorded during the site survey.

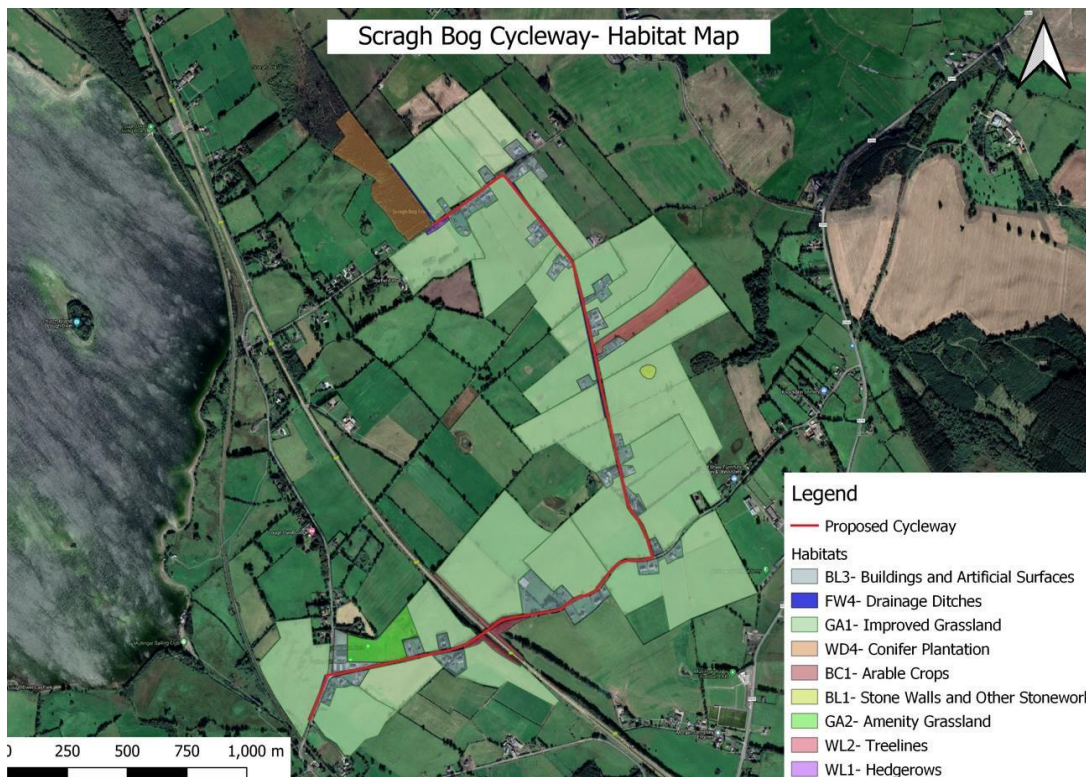


Figure 2 Habitat Map

2.4.3 Mammals and Aquatic Species

No mammals or aquatic species were recorded during the course of the field study.

2.4.4 Invasive Species

No invasive alien plant or animal species were observed during the course of the field survey.

2.4.5 Aquatic Environment

The proposed cycleway begins within 300m of Lough Owel Feeder on an existing public road that flows from Lough Owel through Mullingar into Lough Ennell. The nearest watercourse to the proposed carpark extension is Lough Owel approximately 900m away. In the latest Water Framework Directive assessment from 2013-2018, the Biological, Invertebrate and overall

Ecological Status of the Lough Owel Feeder were assessed as 'Poor' and considered to be under 'Significant Pressure', likely from aquaculture (EPA, 2020). Both Lough Owel and Lough Ennell are considered to be in 'Good' condition according to the assessment.

3 Distance from Natura Sites or Key Features of the Sites

3.1 Zone of Influence (Zoi)

DEHLG Guidance states that screening for Appropriate Assessment should be carried out for any European site within the likely Zone of Influence of a plan or project. For projects, the guidance recommends that the Zone of Influence must be evaluated on a case-by-case basis regarding the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects. Projects have the potential to impact on European sites beyond the confines of the individual sites themselves.

The Zone of Influence of a project is the area in which qualifying interests are present which are sensitive to the ecological impacts that may be caused by the activities associated with the project. The zone of influence will therefore vary relative to the scale of the impact and relative to the ecology of the sensitive receptor.

The potential Zone of Influence is defined as:

- Areas directly within the land take for the proposed development;
- Areas which will be temporarily affected;
- Areas likely to be impacted by hydrological disruption; and
- Areas where there is a risk of pollution and disturbance (e.g. noise).

To establish the zone of influence, nationally available data on protected habitats and species was mapped using GIS. This data was interrogated for any physical, hydrological, or ecological connectivity to the activities associated with the proposed works.

The desk-based assessment of available records of protected species and habitats included the following sources:

Conservation Status Assessment Reports [1] (CSARs), Backing Documents and Maps prepared in accordance with Article 17 of the Habitats Directive;

Published and unpublished NPWS reports on protected habitats and species including Irish Wildlife Manual reports, Species Action Plans, and Conservation Management Plans; and

Existing relevant mapping and databases e.g. waterbody status, species and habitat distribution etc. (sourced from the Environmental Protection Agency - <http://gis.epa.ie/>, the

National Biodiversity Data Centre - <http://maps.biodiversityireland.ie> and the National Parks and Wildlife Services - <http://www.npws.ie/mapsanddata/>).

The findings of the desk-based assessment were investigated and verified by ecological field assessment, carried out on July 8th 2021 by ecologist, Thomas Sheehan. The spatial scope of the field assessment was relative to the physical, hydrological, or ecological connectivity of the proposed works and the qualifying features of the European sites within the zone of influence.

3.2 European Sites within Zone of Influence

The European sites which have a physical, hydrological or ecological connection to the activities associated with the project are presented in Table 1 below and described hereunder.

Table 1 European Sites within Zoi

European Site	Site Code	Distance
Lough Owel SAC	000688	410m NW
Scragh Bog SAC	000692	440m NW
Lough Ennell SAC	000685	5.8km S (8.7km aquatic)
Lough Owel SPA	004047	410m NW
Lough Ennell SPA	004044	6.1km S (9km aquatic)

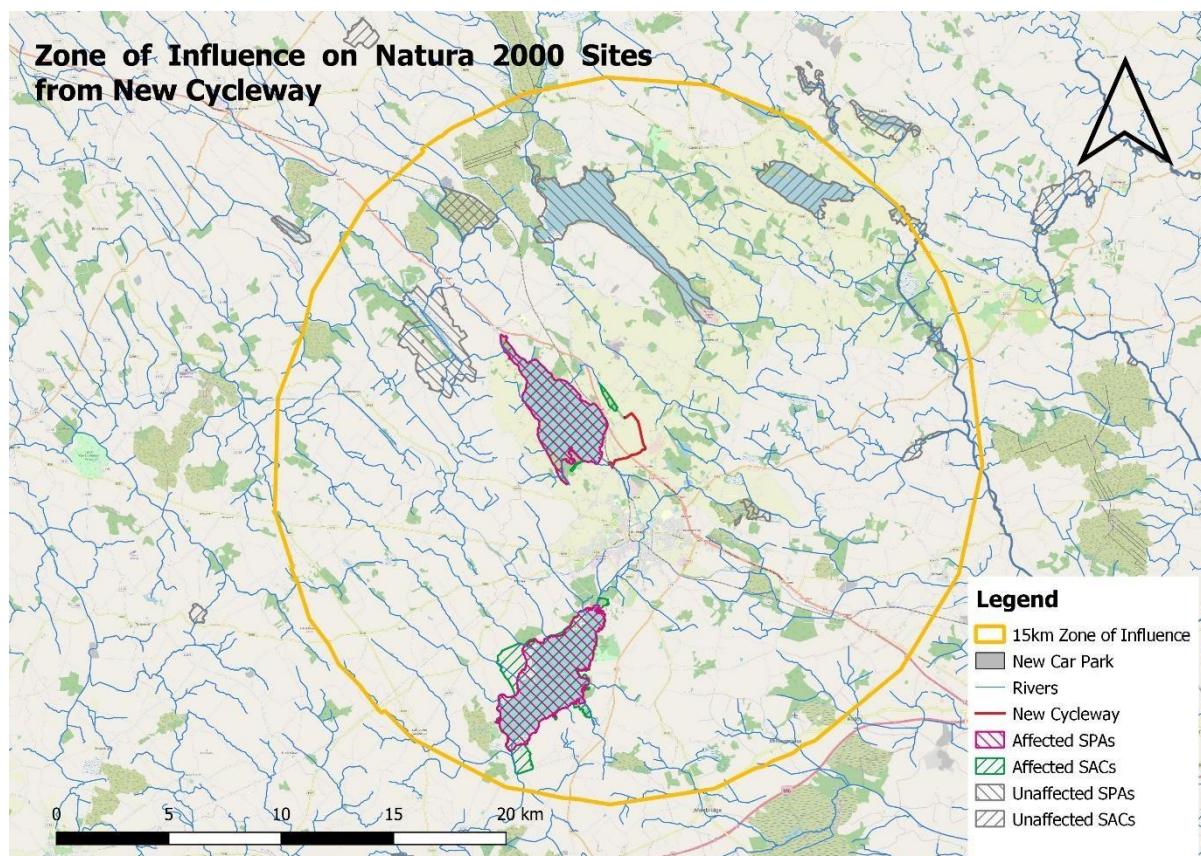


Figure 3 Zone of Influence

3.2.1 Characteristics of European Sites within Zol

Table 2 Lough Owel SAC Qualifying Interests

Annex I Habitats	Annex II Species
3140 Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp.	1092 White-clawed Crayfish <i>Austropotamobius pallipes</i>
7140 Transition mires and quaking bogs	
7230 Alkaline fens	

Table 3 Scragh Bog SAC Qualifying Interests

Annex I Habitats	Annex II Species
7140 Transition mires and quaking bogs	1393 Slender Green Feather-moss <i>Drepanocladus vernicosus</i>
7230 Alkaline fens	

Table 4 Lough Ennell SAC Qualifying Interests

Annex I Habitats
7230 Alkaline fens

Table 5 Lough Owel SPA Qualifying Interests

Habitats	Annex II Species
A999 Wetland and Waterbirds	A056 Shoveler <i>Anas clypeata</i>
	A125 Coot <i>Fulica atra</i>

Table 6 Lough Ennell SPA Qualifying Interests

Habitats	Annex II Species
A999 Wetland and Waterbirds	A059 Pochard <i>Aythya ferina</i>
	A061 Tufted Duck <i>Aythya fuligula</i>
	A125 Coot <i>Fulica atra</i>

3.2.2 Lough Owel SAC (000688)

Lough Owel SAC supports one species listed on Annex II of the E.U. Habitats Directive, Whiteclawed Crayfish. Lough Owel SAC supports habitats listed on Annex I of this Directive. Lough Owel is a large hard water lake located approximately 4 km north-west of Mullingar in Co. Westmeath. It is a relatively shallow lake with a rocky, marl-covered bottom.

In places, the quaking mire grades into alkaline fen. Some characteristic species such as Black Bog-rush (*Schoenus nigricans*) and Long-stalked Yellow-sedge (*C. lepidocarpa*) occur, as well as brown fen mosses. Scarce fen species have been recorded here, including Fen Bedstraw (*Galium uliginosum*) and Marsh Fern (*Thelypteris palustris*). The Bunbrosna wetland area contains a number of rare plant species, namely Marsh Pea (*Lathyrus palustris*), Marsh Fern and Round-leaved Wintergreen (*Pyrola rotundifolia*). In addition, four other rare plant species are found along the lake margins - White Sedge (*C. curta*), Fibrous Tussock-sedge (*C. appropinquata*), Marsh Stitchwort (*Stellaria palustris*) and Frogbit (*Hydrocharis morsusraeae*). Tullaghan fen hosts the uncommon Bog-sedge (*C. limosa*), Fibrous Tussock-sedge and Marsh Fern. Lough Owel is one of the most important fishing lakes in the midlands and is especially good for Trout. Scharff's Char (*Salvelinus scharffi*), a distinct race of char which was once found only in Lough Owel and Lough Ennell, is now thought to be extinct.

White-clawed Crayfish, a species listed in Annex II of the E.U. Habitats Directive, is found at this site. There are small populations of Mallard, Shoveler, Pochard and Tufted Duck present at Lough Owel. Farmland adjacent to the lake provides feeding grounds for internationally important numbers of Greenland White-fronted Goose. Potential threats to the conservation interest of Lough Owel include the increasing level of water supply to Mullingar, overfishing, eutrophication caused by local farming practices and pressure from amenity uses such as boating and fishing.

With the exception of Lough Carra in Co. Mayo, Lough Owel is the best example of a large, spring-fed calcareous lake in the country. The site is of major conservation significance and contains three habitats that are listed on Annex I of the E.U. Habitats Directive, i.e. alkaline fens, transition mires and hard water lakes. Additionally, the site supports bird populations of conservation significance.

3.2.3 Scragh Bog SAC (000692)

Scragh Bog lies approximately 10 km north-west of Mullingar, Co. Westmeath. This site comprises a wet transition fen with a floating root mat which has developed in a small ovalshaped depression. The fen is fed by weak surface springs and drains by an artificially defined outlet. The fen becomes open carr in the central area and in places grades into ombrotrophic bog.

Most of the fen vegetation at the site belongs to two broad types. The first is dominated by Black Bog-rush (*Schoenus nigricans*), with Long-stalked Yellow-sedge (*Carex lepidocarpa*), Narrow-leaved Marsh-orchid (*Dactylorhiza traunsteineri*), Marsh Arrowgrass (*Triglochin palustris*), Grass-of-parnassus (*Parnassia palustris*) and the following mosses: *Campylium stellatum*, *Scorpidium scorpioides* and *S. revolvens*. The second type is quaking fen in which Slender Sedge (*Carex lasiocarpa*) is dominant and is associated with Bogbean (*Menyanthes trifoliata*), Water Horsetail (*Equisetum fluviatile*), Long-stalked Yellow-sedge and the moss species *Scorpidium revolvens*, *Bryum pseudotriquetrum* and *Cinclidium stygium*. Slender Cottongrass (*Eriophorum gracile*), a protected species which is also rare in Europe, occurs in this vegetation type. It is listed in the Flora (Protection) Order, 2015. A third category of fen vegetation is dominated by large sedges, such as Fibrous Tussock-sedge (*Carex appropinquata*).

The site also supports a uniquely complete fauna of transition mire invertebrates, including a number of species which are extremely rare in Northern Europe. Among the aquatic/subaquatic insects, *Chrysops sepulchralis* (Order Diptera), *Tetanocera freyi* (Order Diptera) and *Coenagrion lunulatum* (Order Odonata) provide examples of rare Northern European species. Two other flies *Acrometopia wahlbergi* and *Platycheirus perpallidus* (both Order Diptera) are rare species more closely associated with mire vegetation.

Most of the site is managed as a Nature Reserve. The outflow stream is included in the site, since interference with this outflow could damage the site hydrology. A small section at the bottom of a field to the south is also included - this area supports a species-rich marsh/wet grassland vegetation. As well as being vulnerable to interference with its hydrology, Scragh Bog is also susceptible to eutrophication as a result of agricultural run-off from the surrounding land. Scragh Bog contains excellent examples of two habitats listed on Annex I of the E.U. Habitats Directive - alkaline fen and transition mire. These habitats support a number of rare plants, notably *Drepanocladus vernicosus*, and also play host to a well developed invertebrate fauna.

3.2.4 Lough Ennell SAC (000685)

Lough Ennell supports a diverse aquatic flora. Seven stonewort species have been identified, including two Red Data Book species, *Chara denudata* and *C. tomentosa*. Much of the lakeshore consists of dry, stony ground colonised by calcareous grassland. These areas were formerly part of the lakebed but are now exposed as a consequence of drainage. Species such as Mountain Everlasting (*Antennaria dioica*), Hairy Lady's-mantle (*Alchemilla filicaulis* subsp. *vestita*), Frog Orchid (*Coeloglossum viride*), Fairy Flax (*Linum catharticum*) and Yellow-wort (*Blackstonia perfoliata*) occur here. Alkaline fen is also found on the lake shore, with species such as Grass-of-parnassus (*Parnassia palustris*), Marsh Pennywort (*Hydrocotyle vulgaris*) and Bottle Sedge (*Carex rostrata*). Yellow Archangel (*Lamiastrum galeobdolon*), a rare plant listed in the Red Data Book, has been recorded in the woods along the eastern shores of Lough Ennell. This is the only record for this species outside the south-east of Ireland.

The rare Myxomycete fungus, *Licea castanea*, has been recorded from woodland in the site. A species of blue-green alga (*Schizothrix fasciculata*), which forms little pebbles of lime that are cast up on the lakeshore, occurs in Lough Ennell and has not been recorded elsewhere in

Ireland. Scharff's Char (*Salvelinus scharffi*), a distinct race of char which was once found only in Lough Owel and Lough Ennell, is now thought to be extinct.

This site shares an internationally important Greenland White-fronted Goose flock with Loughs Iron, Glen and Owel. The numbers of geese which visit Lough Ennell are lower than for the other lakes: 91 birds (three year average peak). Nationally important bird populations which have been recorded on Lough Ennell are: Cormorant (average peak 149; absolute maximum 448); Mute Swan (average peak 424); Pochard (average peak 889; maximum 2,600 on 8/11/85); Tufted Duck (average peak 720) and Coot (average peak 639). All of these data were compiled from counts made over three seasons, 1984/85 - 1986/87. A single count of 522 Golden Plover was obtained in that period, constituting a regionally important population.

Lough Ennell is of significance as a highly productive lake which supports a rich variety of lower plant and invertebrate species. Its lakeshore habitats, which include alkaline fen, a habitat listed on Annex I of the E.U. Habitats Directive, support a diverse flora. These habitats also provide important refuges for wildfowl.

3.2.5 Lough Owel / Lough Ennell SPA

Lough Owel Special Protection Area (SPA) Site Code 004047 is designated for Shoveler and Coot, and Lough Ennell Special Protection Area (SPA) Site Code 004044 is designated for Pochard, Tufted Duck and Coot. The Conservation Objectives documents for both these SPAs are generic documents which state the objective of both sites is; *"To maintain or restore the favourable conservation condition of the wetland habitat as a resource for the regularly occurring migratory waterbirds that utilise it."* The project will not have any impact on the Conservation Objectives of the SPAs.

4 Screening

4.1 Introduction

The purpose of Screening is to determine whether AA is required. This is done by examining whether:

- A plan or project which is directly connected with or necessary to the management of the site can be excluded from AA; and
- The potential effects of a plan or project, either alone or in-combination with other plans or projects, on a European site in view of its conservation objectives and considering whether these effects will be significant.

4.1.1 The Likely Significant Effect Test

Screening is underpinned by an interpretation of LSE, as this interpretation provides the benchmark for a finding of likely effects. Any assessment of significance must satisfy the principles that underpin a satisfactory determination for LSE with regard to the accumulation of impacts and an understanding of the nature, probability and severity of potential impacts. The terms 'likely' and 'significance' have been defined variously by governments and through the courts. The following sections seek to provide clarification on the current interpretation of these key terms as determined by recent guidance and case law.

4.1.2 An interpretation of 'likely'

European case law has established that the benchmark requirement of 'likely' should not be regarded as a measure of probability in the context of an AA. Rather, a LSE finding is an acknowledgment that the risk of a significant effect occurring exists. This approach is consistent with the findings in the Waddenzee judgement, which found that “[...] *if it cannot be excluded, on the basis of objective information, that it will have a significant effect on that site [...]*” then a LSE finding is appropriate.

More recently, this position was upheld in the European Court of Justice (ECJ) in Case C258/11 (Sweetman v An Bord Pleanála (Ireland)), where the judgment interprets “likely” to mean “may”; “*the test is set at a lower level [...]*” and “*there is no need to establish such an effect; it is [...] merely necessary to determine that there may be such an effect*” (emphasis original). In cases where there is a determination that there is no significant effect, the Waddenzee

judgment establishes that there must remain “*no reasonable scientific doubt as to the absence of such effects.*”

4.1.3 An interpretation of ‘significant’

It was clarified in the ECJ Case C-127/02 (the Waddenzee judgment) that the measure of significance should be made against the ecological objectives for which the site was designated: “where a plan or project [...] is likely to undermine the site’s conservation objectives, it must be considered likely to have a significant effect on that site”.

The proposed development is not directly connected with or necessary to the management of any European site therefore Screening for AA is required. This involves the following:

- Proposed development description;
- European site (s) identification, qualifying interests and conservation objectives;
- Ecology baseline conditions within and in close proximity to proposed development
- Assessment of likely effects; and
- Screening conclusion

4.2 Identification of Potential Effects on European Sites

Based on the project description as set out in Section 2.2 and the ZOI over which the effect could occur, i.e. the distance at which the proposed development could have potential effects, using professional judgement and published guidance, potential effects can be identified for Lough Owel SAC and Scragh Bog SAC. Table 7 focuses on the potential effects that could occur during the construction and operational phases of the proposed development.

4.3 Qualifying Interests Potentially Exposed to Risk from the Proposed Development

4.3.1 Alkaline Fens [7230]

Drainage, either within or surrounding the fen habitat can result in the drawdown of the alkaline fen groundwater table. The depth, geometry and density of drainage (hydromorphology) will indicate the scale and impact on fen hydrology. Drainage can result in loss of characteristic species and transition to drier habitats. However, to undermine the conservation objectives and integrity of the SAC there would need to be a large-scale or

persistent pollution event that degraded water quality to such an extent that would give rise to a change in hydro morphological conditions.

4.3.2 White-clawed Crayfish (*Austropotamobius pallipes*) [1092]

Potential impacts to White-clawed Crayfish could result from changes in water quality associated with pollutants emanating from the proposed development site. Sediment releases could affect the species, either directly or through the deterioration of clean gravels at spawning grounds downstream.

4.4 Conservation Objectives

To determine how the project would affect European Sites qualifying interests, this assessment has focused on the effects that may possibly occur that could undermine the conservation objectives for the SACs. The conservation objectives of European Sites are provided by the National Parks and Wildlife Service and aim to define the parameters for 'favourable conservation condition' for the species within the sites. The overarching objectives for these sites is to:

'To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected'.

Table 7 Appraisal of Potential Impacts on Identified European Sites

European site name and code	Distance of site from projects	Conservation Objectives and Qualifying Interests(*=priority habitat).	Pathway	Potential for Likely Significant Effects
Lough Ennell SAC 000685	Proposed development site within 2km of the boundary of the SAC.	<i>To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (NPWS, 2017).</i> Annex I Habitats [7230] Alkaline fens	There is a hydrological connection to the SAC over a distance of 8.7km from the proposed area of works. During field surveys, no Annex I habitats were recorded within the proposed area of works or the immediate surrounding area. The SAC is listed for the Annex I Habitat [7230] Alkaline Fen The above habitat is a sensitive habitat and susceptible to run-off, sedimentation or pollution events (e.g. from oils and other hydrocarbons).	Extremely Unlikely Due to the nature and design of the works, and the fact that there are no instream works or works near aquatic zones planned, there is no potential for direct impacts on Annex I habitats as none are present within the footprint of the proposed development or the immediate environs.

<p>Lough Owel SAC 000688</p>	<p>Proposed development site within 410m of the boundary of the SAC.</p>	<p>To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (NPWS, 2017).</p> <p>Annex I Habitats [7230] Alkaline fens.</p> <p>Annex II Species [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>)</p> <p>No instances of disease</p>	<p>The proposed SAC boundary as already stated is approx. 410m from the proposed area of works.</p> <p>During field surveys, no Annex I habitats were recorded within the proposed area of works or the immediate surrounding area.</p> <p>The SAC supports three Annex I Habitats; Alkaline Fens, Transition mires and quaking bogs and Hard oligo-mesotrophic waters with benthic vegetation of Chara spp.</p> <p>The SAC supports one aquatic Annex II species, White-clawed Crayfish. Crayfish extremely susceptible to effects of pollution events.</p> <p>The above aquatic specie is sensitive and susceptible to run-off, sedimentation or pollution events (e.g. from oils and other hydrocarbons).</p> <p>There have been outbreaks of crayfish plague (<i>Aphanomyces astaci</i>) in Ireland since 2015 and it is thought that human activity, especially the transport of disease vectors on contaminated equipment, has introduced and spread the disease.</p> <p>No operational impacts are predicated as a result of the proposed development.</p>	<p>Extremely Unlikely</p> <p>There is no physical or hydrological connection to Lough Owel SAC, hence there can be no effect from the proposed development at on the Lough Owel SAC QIs.</p>
<p>Scragh Bog SAC 000692</p>		<p>To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected (NPWS, 2017).</p> <p>Annex I Habitats [7230] Alkaline fens</p>	<p>The proposed SAC boundary as already stated is approx. 440m from the proposed area of works.</p> <p>During field surveys, no Annex I habitats were recorded within the proposed area of works or the immediate surrounding area.</p> <p>The SAC supports two Annex I Habitats; Alkaline Fens, Transition mires and quaking bogs and one Annex II Species, 1393 Slender Green Feather-moss <i>Drepanocladus vernicosus</i>.</p>	<p>Extremely Unlikely</p> <p>There is no physical or hydrological connection to Scragh Bog SAC, hence there can be no effect from the proposed development at on the Scragh Bog SAC QIs.</p>

4.5 Plans and Projects Which Might Act In Combination

Article 6(3) of the Habitats Directive requires that:

Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other

plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives.

The Westmeath County Council planning database was searched to determine if any plans or projects were likely to have an in-combination effect on the site. There were/no plans or projects listed on the database likely to have an in-combination effect on the site.

This is a small development, which can be easily managed without any potential for significant risk to the environment. The site is sufficiently away from other commercial development of any scale in the locality such that there is no significant cumulative environmental impact likely during the ongoing period for development, given the low annual throughput.

5 Assessment of Significance

5.1 General

The significance impact is assessed relative to the existing condition/conservation status of Lough Owel SAC, Lough Ennell SAC and Scragh Bog SAC, and to the scale of the impact in space and time. Impacts are assessed as significant where the conservation objectives of a European site are undermined.

Where it is determined that a likely effect of the proposed development will have a significant impact on a European site, the project must be assessed through full Appropriate Assessment. The precautionary principle must be applied in determining significance of an impact. Where the significance of an impact cannot definitively be ascertained on the basis of the information available it is required to progress to full Appropriate Assessment i.e. a measure cannot be screened out unless there is certainty that no significant impact is likely.

Impacts on Lough Owel SAC, Lough Ennell SAC and Scragh Bog SAC have been assessed as extremely unlikely. There will therefore be no impacts on the conservation condition of the European sites within the Zone of Influence.

6 Screening Statement

Table 8 Screening Matrix

Findings of No Significant Effects Screening Matrix		
Name of project or plan	Extension of Northern Cycling Route to Scragh Bog	
Name and location of Natura 2000 site	Lough Owel SAC (000688), Lough Ennell SAC (000685) and Scragh Bog SAC (000692)	
Description of the project or plan	<p>The project is for a cycle loop to provide a scenic link from Mullingar through the County Westmeath countryside along existing suitable local roads while also utilising possible off road routes.</p> <p>In 2021 Westmeath Co. council obtained funding through Outdoor Recreation Infrastructure Scheme M2 to construct a section of this Cycleway that would connect from the existing Cycleway at Levington Cross on the old Longford Road to the Carpark at Scragh Bog access. The funding also included provision for the expansion, surfacing and regularising of the carpark at Scragh Bog.</p> <p>The project can be divided into three distinct elements:</p> <ol style="list-style-type: none"> 1. Provision of cycle track through Council Lands along the L1773; 2. Provision of signage along the local roads linking to Scragh bog; 3. Upgrade, expansion and resurfacing of existing car park to Scragh bog. 	
Is the project or plan directly connected with or necessary to the management of the site?	No	
Are there other projects or plans that together with the project or plan being assessed could affect the site?	No	
<i>The assessment of significance of effects</i>		
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	No likely effects determined. All potential impacts are determined as extremely unlikely.	
Explain why these effects are not considered significant	No impact have been determined therefore there can be no alteration of the conservation condition or objectives of the European sites due to the proposed works	
<i>Data collected to carry out the assessment</i>		
Who carried out the assessment?	Sources of data	Level of assessment
Maurice O Connor, Ecologist	Refer to references section	Desk study plus field assessment

7 References

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