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ECOLOGICAL IMPACT ASSESSMENT OF A PROPOSED DEVELOPMENT AT THE DUCKING STOOL JETTY, BELTURBET, CO. CAVAN



Cavan County Council
c/o Traynor Environmental Ltd
Belturbet Business Park
Greeney
Belturbet
Co. Cavan

July 2026

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1. INTRODUCTION

1.1 THE AIM OF THE REPORT

In July 2026, Whitehill Environmental was commissioned by Traynor Environmental, on behalf of Cavan County Council, to prepare an Ecological Impact Assessment (EclA) for a proposed development (Part 8) at the Ducking Stool Jetty, The Lawn and lands at Willow Avenue, Belturbet, Co. Cavan. This EclA addresses the potential negative impacts of this proposed development that may occur in the future on the ecology and biodiversity of the application site and its surrounding environs, should the development be allowed to proceed.

This EclA has been undertaken in accordance with the guidelines issued by the Environmental Protection Agency (EPA) and the Chartered Institute of Ecology and Environmental Management (CIEEM).

It follows a standard approach based upon the description of the existing baseline conditions within the application site. An evaluation of the likely habitats and species currently present within the application site is also given, along with the identification of the potential ecological impacts arising from the construction and operation of the proposed development. An assessment of the likely significance of the identified impacts on valued ecological receptors (VERs), both within and close to the application site is also made. Where a significant negative impact has been identified, then suitable remedial mitigation measures are provided in order to prevent, reduce or offset the impact.

1.2 LEGISLATIVE AND POLICY CONTEXT

Legislative Context

The Irish Wildlife Act 1976 (and its amendment of 2000) provides protection to most wild birds and animals. Interference with such species can only occur under licence. Under the act it is an offence to "wilfully interfere with or destroy the breeding place or resting place of any protected wild animal". The basic designation for wildlife is the Natural Heritage Area (NHA). This is an area considered important for the habitats present or which holds species of plants and animals whose habitat needs protection. Under the Wildlife Amendment Act (2000) NHAs are legally protected from damage. NHAs are not part of the Natura 2000 network and so the Appropriate Assessment process does not apply to them.

The Flora Protection Order 1999 provides statutory protection in Ireland to a number of rare plant species from being wilfully cut, picked, uprooted or damaged. It is also illegal under this order to alter, damage or interfere with their habitats.

The Birds Directive (Council Directive 2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly occurring populations of migratory bird species and the SPA areas are of international importance for these migratory birds.

The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.

Articles 6(3) and 6(4) of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs). This is explained in greater detail in the following section.

The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003). The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2027 and that status does not deteriorate in any waters.

Planning Policies

National

Nationally, the Government's commitment to sustainable development is set out in a number of documents including the National Planning Framework and the National Development Plan 2018 – 2027.

Regional

Planning at the regional level is now guided by the Regional Spatial and Economic Strategy (RSES). The RSES is a strategic plan which identifies regional assets, opportunities and pressures and provides appropriate policy responses in the form of Regional Policy Objectives.

Local

Planning policy at the local level is provided by the Cavan County Development Plan 2021 – 2027. This plan contains a number of objectives and policies relevant to ecology, biodiversity and nature conservation. These are summarised in Table 1.

Policy Reference	Policy
NH1	Conserve, protect and manage the County's natural heritage assets for future generations while encouraging appreciation, understanding and enjoyment of the amenity value for the present generation.
NH2	Maximise the social, economic and environmental benefits that may be derived from the conservation and management of Cavan's Natural Heritage and green infrastructure.
NH3	Support the implementation of relevant actions in the National Biodiversity Plan, the All Ireland Pollinator Plan and the National Peatlands Strategy.
NH4	Implement, in partnership with Cavan County Heritage Forum, relevant stakeholders and the wider community, Cavan County Heritage and Biodiversity Plans and any revisions thereof
NH5	To integrate biodiversity consideration into all County activities through the County Biodiversity Action Plan process.
NH6	Ensure the protection of species of flora and fauna afforded legal protection under Irish and European Legislation.
NH7	Assess the impact on biodiversity of proposals for large developments, particularly those on greenfield sites, or in environmentally sensitive areas. Such developments must include measures for the enhancement and protection of biodiversity.
NH8	To promote the conservation of biodiversity outside of designated areas, including features such as wetlands, woodlands, hedgerows and uplands.

Table 1 – Local Policies Relevant to Ecology and Nature Conservation

Heritage and Biodiversity Plans

Ireland's National Biodiversity Plan identifies actions that need to be taken in order to understand and protect biodiversity in Ireland. It states that biodiversity and ecosystems in Ireland should be conserved and restored, to deliver benefits that are essential to all sectors of society and that Ireland should contribute to the efforts to halt the loss of biodiversity and the degradation of ecosystems in the EU and globally.

The Cavan Biodiversity and Heritage Strategic Plan Heritage Plan 2020-2025 outlines a framework and action plan for the protection of natural heritage and biodiversity of the County of Cavan.

2. METHODOLOGY

2.1 STATEMENT OF COMPETENCY

This EclA was written by Noreen McLoughlin MSc, MCIEEM. Noreen is the principal ecologist at Whitehill Environmental. Noreen holds a BA (Hons) in Natural Science (Mod) Zoology and an MSc in Freshwater Ecology (TCD, Dublin). She has been a full member of the CIEEM (Chartered Institute of Ecology and Environmental Management) for over 20 years.

For the purpose of the preparation of this EclA, the faunal field surveys and supporting reports were carried out by two different specialists.

- Terrestrial Mammals – Dr Tina Aughney has worked as a Bat Specialist since 2000 and has undertaken extensive survey work for all Irish bat species including large scale development projects, road schemes, residential developments, wind farm developments and smaller projects in relation to building renovation or habitat enhancement. She is a monitoring co-ordinator and trainer for Bat Conservation Ireland. She is a co-author of the 2014 publication Irish Bats in the 21st Century. This book received the 2015 CIEEM award for Information Sharing. Dr Aughney is a contributing author for the Atlas of Mammals in Ireland 2010-2015.
- Birds – Joseph Adamson MCIEEM is a freelance Senior Field Ecologist and has been working in Ecological Consultancy for the past 25 years. Joe has an M.Sc. in Environmental Resource Management and has been a full member of the Chartered Institute of Ecology and Environmental Management (MCIEEM) for the past 14 years. Joe works primarily in the Energy Sector, conducting ornithological field surveys at proposed wind and solar farms throughout Ireland.'

2.2 STUDY AREA

The study area encompasses all the land within the area defined in the plan submitted for planning consent, i.e., the proposed application site. In addition, important ecological habitats and receptors within the Zone of Influence of the proposed development were also studied.

2.3 FIELD BASED STUDIES

Habitats and Flora

Habitats within the site were assessed by personnel from Whitehill Environmental and Traynor Environmental in November 2025 and July 2026. The site was surveyed in accordance with the Heritage Council's *Habitat Survey Guidelines* (Smith et al., 2010) and the Institute of Environmental Assessment's *Guidelines for Baselines Ecological Assessment* (IEA, 1995). Habitats within the development site were classified in accordance to Level 3 of *A Guide to Habitats in Ireland* (Fossit, 2000). These habitats are denoted in the text along with their habitat code, e.g., the habitat code for improved agricultural grassland is GA1.

Bats

A desktop review of bat records along with a static surveillance survey of the site was carried out by Dr Tina Aughney of Bat Eco Services in September 2025. The static surveillance consisted of five static units deployed on trees within the proposed development area and adjacent treelines:

- Static 1 - 16th September to 22nd September 2025 (6 nights)
- Static 2 - 16th September to 29th September 2025 (13 nights)

Terrestrial Mammals

Mammal surveys were also conducted by Dr Tina Aughney and two rounds of trail camera surveillance was undertaken as follows:

- Autumn Survey 1 – Trail cameras (6 Units, 5 of which were retrieved after flood event) were located within vicinity of Ducking Stool Jetty. Survey dates: 29th September to 15th October 2025 (15 days).
- Autumn Survey 2– Trail cameras (8 Units) were located within vicinity of Ducking Stool Jetty. Survey dates: 15th October to 12th November 2025 (28 days).
- Summer Survey 1 - Trail cameras (6 Units) were in vicinity of Ducking Stool Jetty: 25th April to 11th May 2026 (17 days).

The locations of the trail cameras are presented below in Figure 1.

Walkover surveys of the general area were completed on 15th October 2025 and the 25th April 2026. These were undertaken by two surveyors, one in a kayak (500m either side of the jetty) and the second walking accessible sections of the river banks. Any signs of mammal activity was noted. This element of the survey was concentrated along the River Erne and the 20m zone

of the river bank (where accessible). This is due to the fact that the proposed development is associated with the River Erne and small area adjacent to the river.



Figure 1a – Location of the Mammal Trail Cameras 2025 (Taken from Figure 2c of Mammal Survey Report prepared by Bat Eco Services)



Figure 1b – Location of the Mammal Trail Cameras 2026 (Taken from Figure 2d of Mammal Survey Report prepared by Bat Eco Services)

Birds

A bird survey of the site was undertaken by Joseph Adamson MCIEEM on November 13th 2025. The proposed survey area was walked and birds present, either observed or heard along the route were recorded.

Seasonal Constraints

Given the range of habitats on the site, it is considered that there were no significant seasonal constraints associated with the habitat assessment element of the field work for this EclA.

There were no constraints noted with the bird, bat or mammal assessments.

2.4 DESK BASED STUDIES

The desk study involved the examination of aerial photographs, current and historical maps and plans and drawings of the site. In addition, information was collated on designated nature sites within a 15km radius of the proposed site and on protected and rare species within the 1km square of the site.

The following websites were used to access information and data:

- National Parks and Wildlife Service - Aerial photographs and maps of designated sites, information on habitats and species within these sites and information on protected plant or animal species, conservation objectives, site synopses and standard data forms for relevant designated sites.
- Environmental Protection Agency (EPA)- Information pertaining to water quality, geology and licensed facilities within the area;
- Myplan.ie – Mapped based information;
- National Biodiversity Data Centre (NBDC) – Information pertaining to protected plant and animal species within the study area;
- Inland Fisheries Ireland – IFI were consulted as part of the initial re-alignment design.
- Bing maps & Google Street View – High quality aerals and street images;
- Traynor Environmental – Plans and Specifications relating to the proposed development, etc.
- Cavan County Council – Information on planning history in the area.

2.5 ASSESSMENT METHODOLOGY

Evaluation of Ecological Features

The methodologies used to determine the value of ecological resources, to characterise the impacts of the proposed scheme, and to assess the significance of impacts and any residual effects are described below. This approach is in accordance with the following guidelines and methodologies:

- *Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, Version 1.3, 2024)*
- *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022)*
- *Advice Notes for Preparing EIARs (EPA, updated alongside 2022 guidance)*
- *Guidelines for Assessment of Ecological Impacts of National Road Schemes (TII, 2009).*
- Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment, as amended by Directive 2014/52/EU;
- *CIEEM EcIA Checklist (2019)*
- *Biodiversity Metric and Biodiversity Impact Assessment Standard (TII, 2025)*
- *Ireland's 4th National Biodiversity Action Plan 2023–2030 (DAHG, 2024)*

CIEEM suggest that to ensure a consistency of approach, ecological features are valued in accordance with their geographical frame of reference, as defined below:

- International
- National (Ireland)
- Regional (North - East)
- County (Cavan)
- District (Belturbet)
- Local/Townland (Ducking Stool Jetty, The Lawn, Willow Avenue)

The above categories are then applied to the ecological features identified. Ecological features can be defined as:

- Designated sites (i.e., SACs, SPAs, NHAs, pNHAs, National Nature Reserves) or non-statutory locally designated sites and features.

- Non-designated sites and habitats and features of recognised biodiversity value, such as rivers and streams. The features being evaluated can be considered in the context of the site and locality and thus a more accurate assessment of the impacts in the locality can be made.

The criteria used in evaluating ecological receptors follow the guidance set out in the *Guidelines for Ecological Impact Assessment in the UK and Ireland* (CIEEM, 2024) and are informed by the *Guidelines for Assessment of Ecological Impacts of National Road Schemes* (TII, 2009). The site evaluation criteria are detailed in Table 2. The assignment of ecological value to identified receptors is based on professional judgement, having regard to the guidance outlined above, the ecological context of the site, and the conservation status of habitats and species at local, county, national and international levels.

Ecological Valuation	Description
Internationally Important	• European sites including Special Areas of Conservation (SACs) and Special Protection Areas (SPAs), or candidate/qualifying sites under the EU Habitats and Birds Directives. • Undesignated sites that meet the criteria for designation as European sites. • Sites or features essential to maintaining the coherence of the European site network. • Sites containing 'best examples' of Annex I habitats or supporting significant populations of Annex II and/or Annex IV species. • Resident or regularly occurring populations of Annex I bird species of international importance. • Ramsar Sites, UNESCO World Heritage Sites or Biosphere Reserves. • Sites supporting species or habitats protected under international conventions (e.g. Bern or Bonn Conventions).
Nationally Important	• Sites designated or proposed as Natural Heritage Areas (NHAs) or Statutory Nature Reserves. • National Parks. • Undesignated sites that meet the criteria for designation at national level (e.g. NHA quality). • Sites supporting nationally important populations of species protected under the Wildlife Acts or listed on national Red Lists. • Viable areas of Annex I habitats that are of national importance but do not meet international thresholds.
County Importance	• Sites designated within a County Development Plan, including Areas of High Amenity or equivalent. • Areas subject to Tree Preservation Orders. • Sites supporting populations of protected or notable species that are important at county level. • Semi-natural habitats or features identified in local Biodiversity Action Plans. • Sites containing habitats or species that are uncommon or declining within the county.
Local Importance (higher value)	• Sites supporting locally important populations of priority or protected species. • Semi-natural habitats with relatively high biodiversity value at a local

	level and a high degree of naturalness. • Features that contribute to ecological connectivity, including wildlife corridors and stepping-stone habitats. • Habitats or species that are locally uncommon.
Local Importance (lower value)	• Sites containing small areas of semi-natural habitat of limited biodiversity value. • Artificial, modified or intensively managed habitats with low species diversity. • Features of some local ecological value that contribute in a minor way to habitat connectivity.
Negligible Ecological Value	• Areas of little or no ecological interest, such as buildings, hardstanding, or highly managed surfaces with negligible biodiversity value.

Table 2 - Conservation Evaluation (after Natura Site Evaluation Scheme, (TII, 2009).

Assessment of Impacts

The assessment of potential ecological impacts has been carried out using guidelines published by the EPA and the CIEEM. They can be summarised as:

- The identification of the range of potential impacts which can reasonably be expected to occur should the proposed developments receive planning consent;
- The consideration of the systems and processes in place to avoid, reduce and mitigate the possible effects of these impacts;
- The identification of opportunities for ecological enhancement within the site.

Impacts are defined as being positive, negative or neutral. A significant impact is defined as an impact upon the integrity of a defined ecosystem and/or the conservation status of a habitat or species within a given area.

Where a potential negative impact has been identified, mitigation measures have been formulated using best practices techniques and guidance to prevent, reduce or offset the impact.

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3. PROPOSED DEVELOPMENT DETAILS

3.1 DEVELOPMENT DESCRIPTION

Cavan County Council are proposing to undertake the following development at the Ducking Stool Jetty, The Lawn and lands at Willow Avenue, Belturbet, Co.Cavan. The proposal is for the upgrade and realignment of the existing jetty and slipway at the Ducking Stool Jetty and the creation of a carpark on lands at Willow Avenue, with the reinstatement of a walkway connecting both. Details of the works include:

- Removal of the existing timber jetties
- Realignment and widening of the slipway providing access to the River Erne
- Reconfiguration and extension of the existing pier, including amended levels
- Installation of floating jetties and jetty access ramp
- Construction of hard landscaped, public recreational open space
- Reinstatement and upgrade of walkway connecting The Ducking Stool Jetty to lands at Willow Avenue
- Reconfiguration and upgrade of existing gravelled area to create new carpark (7no. spaces), including access steps
- Installation of public lighting and refuse storage
- Amendments to site boundaries
- Installation of bike stands
- Installation of wayfinding signage
- Reconfiguration and upgrading of existing drainage and all associated site development works.

Extracts from the planning drawings as submitted are shown in Figures 2a – 2b.

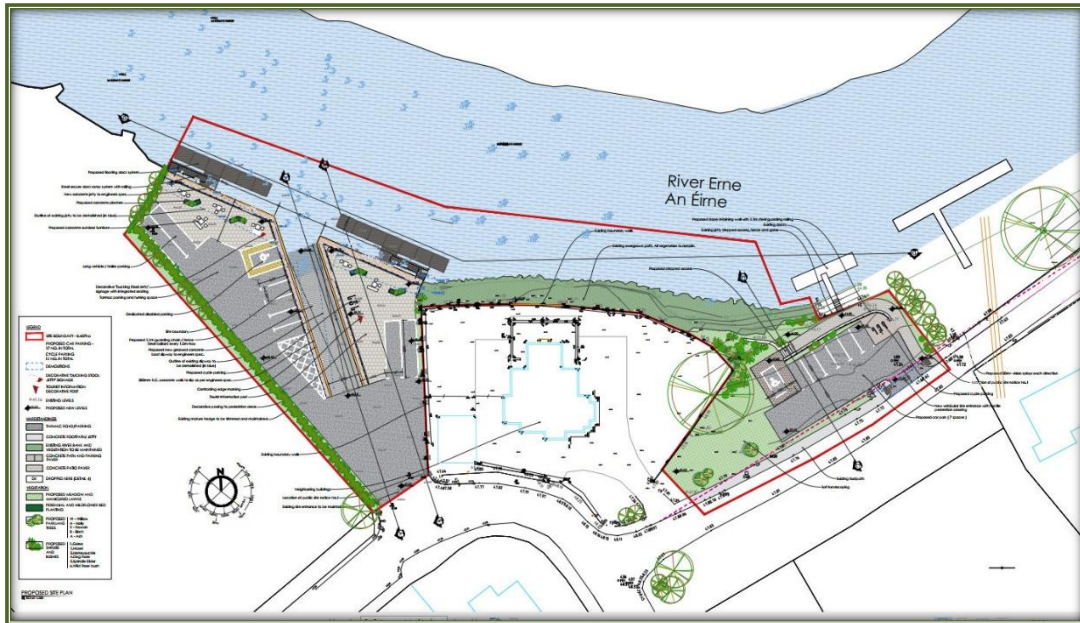


Figure 2a – Extract from Planning Drawings (as prepared by Craftstudio Architecture)



Figure 2b – Proposed Model

3.2 DETAILS OF THE PROPOSED WORKS

The proposed development will involve the following key work phases:

- Tender Stage
- Procurement and appointment of successful Tenderer(s) (hereafter referred to as The Contractor)
- Detailed Design Stage
- Site preparatory works including the preparation of all required Detailed Safety and Health, and Environmental Management documents
- Piling
- Site mobilisation.
- Construction stage
- Completion.

It is anticipated that the construction phase will take 6 months (TBC). The proposed sequence of construction outlined is subject to confirmation once the building contract has been awarded and on completion of the Detailed Construction Environment Management Plan for agreement with Cavan County Council.

Construction Phase

There will also be earth removal (minimal) and piling works associated with the proposed development. A Resource Waste Management Plan (RWMP) will be submitted as part of the detailed design stage.

Construction of the proposed development will initially involve the removal of the existing static jetty, walls and slipway, alongside core-drilling into the bedrock using marine drilling equipment to install the new steel columns. Concrete will be removed to facilitate the new concrete slipway. A method statement was developed by Alan Traynor Consulting Engineers outlines the proposed construction approach for the upgrade of the existing public marina.

Static Jetty Pile Installation

1. Structural Frame Installation
 - Install steel vertical columns
 - Fix steel cross beams and edge beams
2. Precast Decorative Concrete Panels
 - Lift decorative precast panels into position against marina face.
 - Secure panels into steel structure

3. Precast Jetty Deck Slabs

- Lift and place precast slabs onto jetty framing
- Construct required finishes as per structural drawings.
- Install edge protection, bollards, ladders and services.

Floating Jetty Installation

- Floating pontoon constructed in factory conditions and delivered to site via lorry and Hiab crane.
- Pontoons fixed to new steel piles via guide brackets.
- Connection of services such as water and power is completed.
- Mooring cleats and safety ladders installed.

Slipway Construction

- Install formwork and reinforcing steel.
- Precast concrete slipway section to be installed in river basin to reduce site/water excavation and damming works.
- In-situ concrete slipway to be formed and cast into precast concrete unit and extended to carpark level.
- Apply non-slip finishes.

Carpark Works

- Strip existing surfacing where required
- Earthworks and grading
- Install new pavement layers
- Linemarking and signage installed
- Landscaping and drainage works completed

Surface Water Management

Permeable paving will be used on proposed car parking surface areas. It is proposed to discharge the surface water flows from the site into the river, via a gravity network. The drainage network including c250 ACO channel and 150mm perforated twin wall pipes will drain to an NSBP003 Class I petrol bypass interceptor or similar approved prior to discharge.

Construction Management Plan

A Construction Management Plan for the works has been prepared by Traynor Environmental Ltd. This plan lays out a detailed description of the methodology that will be used in the development of the marina.

The purpose of the CEMP is to.

- Provide effective, site-specific procedures and mitigation measures to monitor and control environmental impacts throughout the construction phase of the project.
- Ensure that construction activities so far as is practical do not adversely impact amenity, traffic or the environment in the surrounding area.

This CEMP has been reviewed as part of this EcIA and NIS, and the CEMP has taken into consideration the mitigation measures contained in this EcIA and the NIS for the protection of the Natura 2000 sites.

4. RECEIVING ENVIRONMENT

This section provides an overview of the existing ecological conditions within the site and the surrounding environment.

4.1 SITE LOCATION & GENERAL DESCRIPTION

The application site is 0.43ha and it is located in the town of Belturbet, along the southern banks of the River Erne and at Ducking Stool Jetty. The site will be accessed via local access roads known as The Lawn and Willow Ave.

Site location maps are shown in Figures 3 and 4.

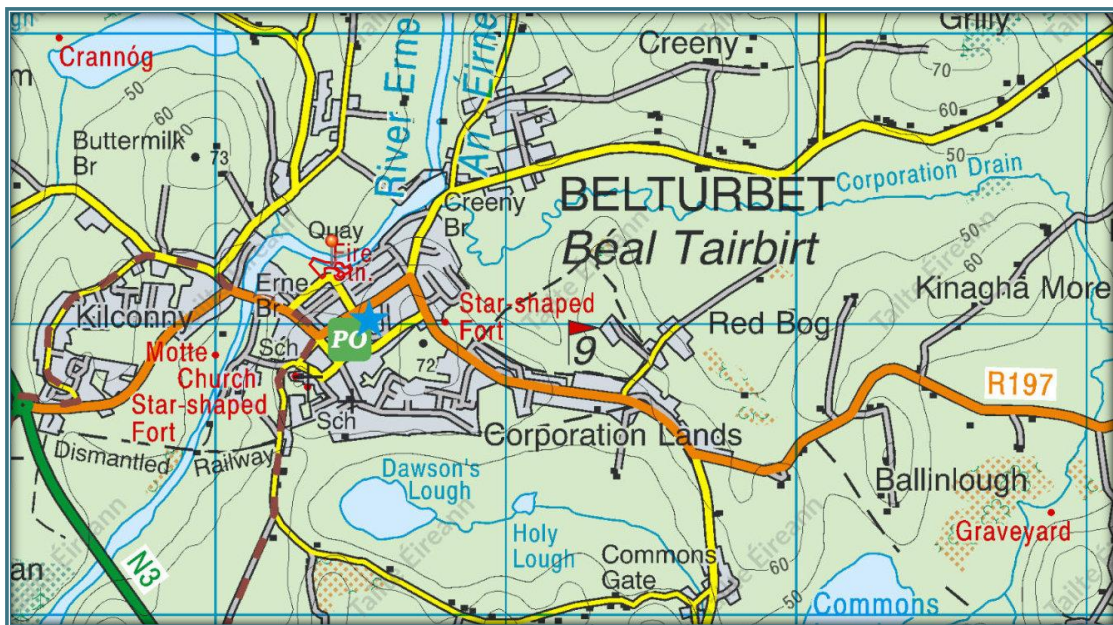


Figure 3 – Site Location Map (Site Pinned).

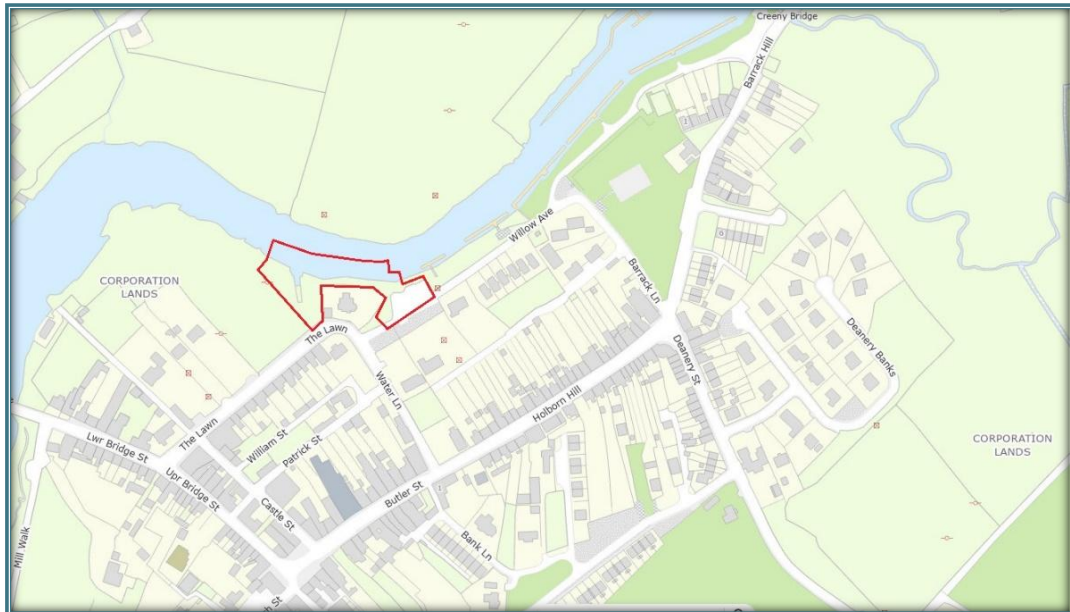


Figure 4 – Site Location Map. Application Site is Outlined in Red.

Habitats and Land-Use Surrounding the Site

The land-use immediately surrounding the site is predominantly urban and it consists of the residential and commercial areas of Belturbet town and suburbs. The main habitats associated with these areas include buildings and artificial surfaces, along with amenity grasslands, gardens and scattered trees. Beyond the urban and sub-urban areas of Belturbet, agriculture is the dominant land use and improved and semi-improved / neutral grasslands are the main habitats associated with these areas. Other habitats represented in the rural areas locally include wet grasslands, wetlands, coniferous and mixed broadleaved woodlands, scrub, hedgerows and treelines. The River Erne flows through Belturbet and the habitats associated with this river include depositing lowland rivers, riparian grasslands and woodlands and other wetlands. An aerial photograph of the site and the surrounding habitats can be seen in Figure 5.



Figure 5 – Aerial Photograph Showing Habitats Surrounding the Application Site.

4.2 DESIGNATED SITES

Natura 2000 Sites

The proposed application site is not located within or immediately adjacent to any site designated as a Special Area of Conservation (SAC) or Special Protection Area (SPA) under the EU Habitats Directive or EU Birds Directive. A total of eleven Natura 2000 sites were identified within the potential Zone of Influence (Zol) of the proposed development.

In accordance with the precautionary principle and established Appropriate Assessment methodology, the Zol for this assessment was extended to include all designated sites within 15 km of the proposed development, together with any sites beyond 15 km where a potential hydrological connection may exist. This approach ensures that all potential impact pathways are appropriately considered.

All Natura 2000 sites within 15 km of the proposed development, together with any sites beyond this distance with potential hydrological connectivity, are listed in Table 3. Figures 6 and 7 illustrate the locations of these designated sites relative to the application site. The qualifying interests and conservation objectives of each site, together with the potential for the proposed development to result in effects on these interests, have been assessed through an evaluation of the presence or absence of source–pathway–receptor linkages. Further details relating to each designated site are available from the [National Parks and Wildlife Service](#) website.

Site Name & Code	Distance	Qualifying Interests	Connectivity
Lough Oughter and Associated Loughs SAC 000007	Site is Partially Within, Overlapping Area c1,280m ²	- Natural eutrophic lakes with <i>Magnopotamion</i> or <i>Hydrocharition</i>-type vegetation - Bog woodland - Otter <i>Lutra lutra</i>	<i>Yes – the site is partially within.</i>
Lough Oughter Complex SPA 004049	3.9km south	- Great Crested Grebe (<i>Podiceps cristatus</i>) - Whooper Swan (<i>Cygnus cygnus</i>) - Wigeon (<i>Anas penelope</i>) - Wetlands & Waterbirds	<i>This SPA is hydrologically upstream of the application site.</i>
Kilroosky Lough Cluster SAC 001786	15km north-east	- Hard oligo-mesotrophic waters with benthic vegetation of <i>Chara</i> spp. - Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae - Alkaline fens	<i>No Connectivity</i>

		• <i>Austropotamobius pallipes</i> (White-clawed Crayfish)	
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Table 3 – Natura 2000 Sites of Relevance to the Proposed Development

The generic conservation objectives of the SACs are:

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.

The generic conservation objectives of the SPAs are:

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA.

The favourable conservation status of a habitat is achieved when:

- Its natural range and area it covers within that range is stable or increasing and the specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future;
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- The 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.

A Natura Impact Statement as required under Article 6 (3) of the Habitats Directive has also been prepared for this proposed development as significant effects upon the Lough Oughter and Associated Loughs SAC could not be ruled out.

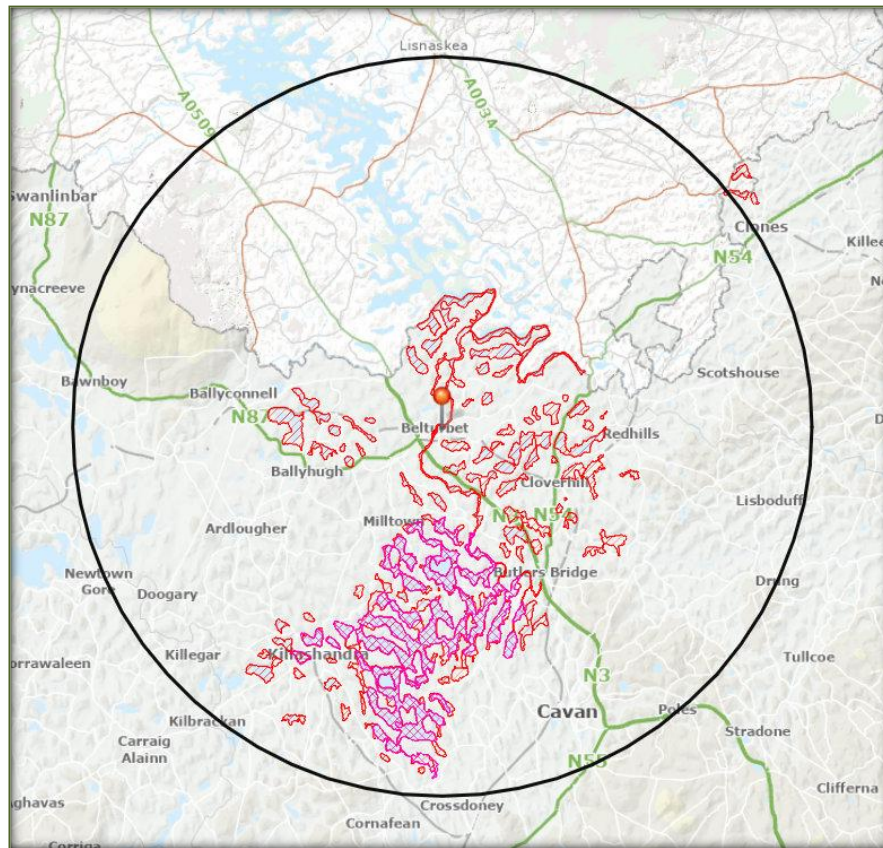


Figure 6 – Designated Sites within 15km of the Application Site (Pinned). SACs – Red Hatching, SPAs – Pink Hatching.



Figure 7 – The Application Site in relation to the Lough Oughter and Associated Loughs SAC

Nationally Important Sites

The application site is not within or immediately adjacent to any nationally designated site, such as a Natural Heritage Area or a proposed Natural Heritage Area. It is within 5km of one site that has been designated as a proposed Natural Heritage Areas (pNHAs). This site is summarised in Table 4 and a map showing its locations relative to the application site is shown in Figure 8.

Site Name	Distance from Proposed Development	Ecological Connectivity
Lough Oughter and Associated Loughs pNHA 000007	560m south at its closest point	All pNHA areas within the Lough Oughter and Associated Loughs pNHA are upstream of the proposed development site.

Table 4 – Nationally Important Sites within 15km of the Proposed Development

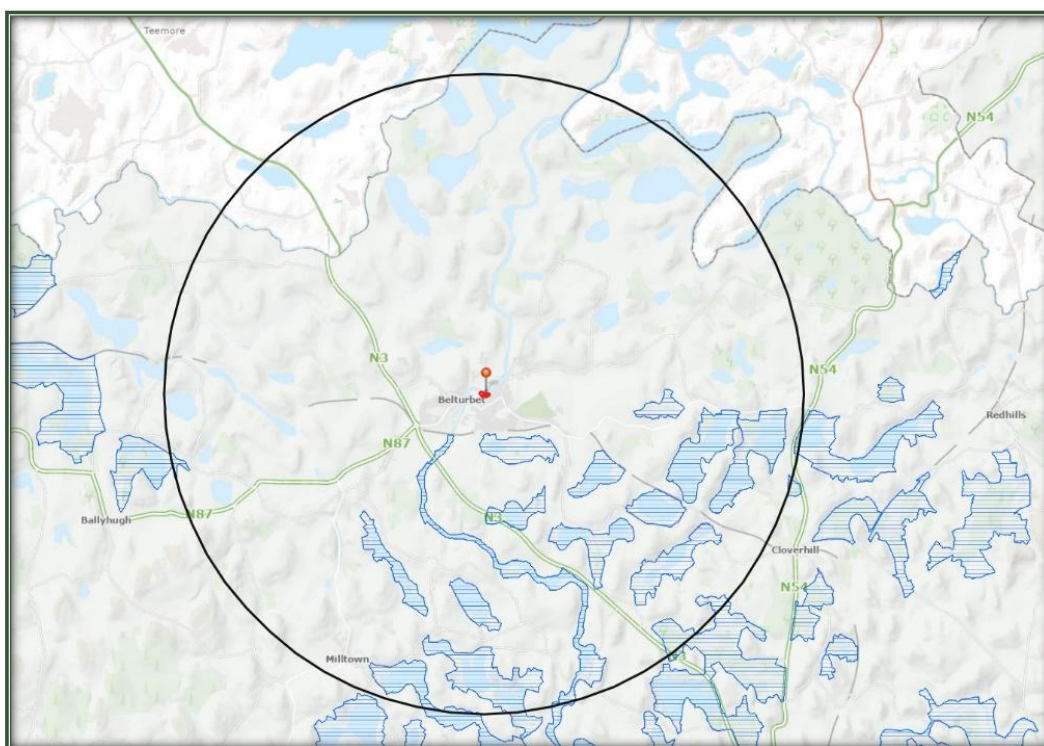


Figure 8 – The Proposed Application Site in Belturbet in Relation to the Lough Oughter and Associated Loughs pNHA

4.3 FLORA

Habitats within the Study Area

The application site lies partially within the Lough Oughter and Associated Loughs SAC. In the eastern section of the site, there is an existing carpark and dilapidated wooden jetty that extends down to the banks of the River Erne. A hedgerow extends along the eastern perimeter of the site. The most common species in this hedgerow include sycamore *Acer pseudoplatanus* and willow *Salix* sp.. This car park is currently accessed via The Lawn access road. The western section of the site consists of an area of hard core and amenity grassland that also extends down to the banks of the River Erne. The eastern and western sections of the site are separated by an existing private dwelling. However, they are connected by a line of willow scrub and a grassy verge that extends along the river bank to the rear (north) of this dwelling.

The main habitats within the application site include:

- Buildings and Artificial Surfaces – Fossitt Code BL3
- Amenity Grasslands – GA2
- Scrub – WS1
- Hedgerow – WL1
- Depositing Lowland River (Erne) – SW 2

Photographs of the site are presented in Figures 9a – 9f.

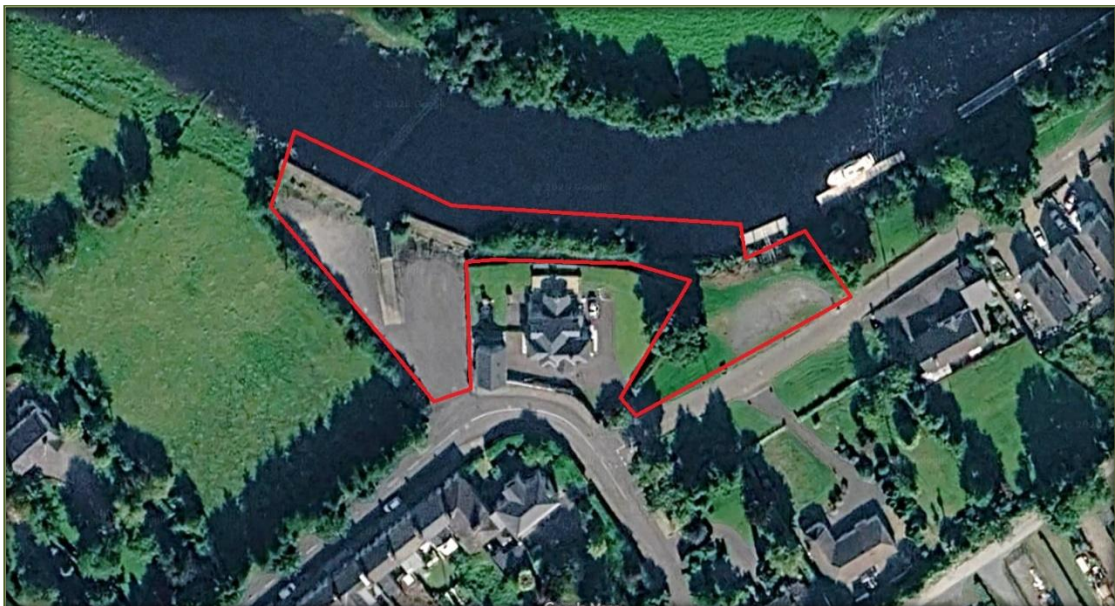


Figure 9a – Aerial Photograph of the Site (Outlined in Red) and its Surrounding Habitats © Google



Figure 9b– Hedgerow Along Eastern Perimeter



Figure 9c – Eastern Section of the Marina



Figure 9d – Current State of Eastern Section of the Marina



Figure 9e – Looking East / Upstream of the River



Figure 9f – Western Section of the Marina

Rare and Protected Plant Species

An examination of the website of the National Parks and Wildlife, the National Biodiversity Data Centre and the Online Atlas of Vascular Plants for Ireland revealed that there are no records for any plant species protected under the Flora Protection Order from within the 1km square (H3617) of the proposed application site.

Invasive Species

Records from the National Biodiversity Data Centre indicate that the following invasive alien species, listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), as amended, have been recorded within the 1 km grid square (H3617) containing the application site. Under Regulation 49 of these Regulations, it is an offence to plant, disperse, or otherwise cause or allow the spread of these species in the wild.

- Canadian Waterweed (*Elodea canadensis*)
- Japanese Knotweed (*Fallopia japonica*)
- Nuttall's Waterweed (*Elodea nuttallii*)
- Zebra Mussel (*Dreissena polymorpha*)
- American Mink (*Neovison vison*)

Japanese knotweed is present in Belturbet marina, which is further north of the Ducking Stool site. However, knotweed was not observed within the Ducking Stool site.

4.4 FAUNA

Terrestrial Mammals – Desk Study

Records from the National Biodiversity Data Centre reveal the presence of the following protected mammals from within the 10km squares (H31) of this proposed application site:

- Badger (*Meles meles*)
- Brown Long-eared Bat (*Plecotus auritus*)
- Common Pipistrelle (*Pipistrellus pipistrellus sensu stricto*)
- Daubenton's Bat (*Myotis daubentonii*)
- Hedgehog (*Erinaceus europaeus*)
- Irish Hare (*Lepus timidus subsp. hibernicus*)
- Irish Stoat (*Mustela erminea subsp. hibernica*)
- Leisler's Bat (*Nyctalus leisleri*)
- Nathusius's Pipistrelle (*Pipistrellus nathusii*)
- Natterer's Bat (*Myotis nattereri*)
- Otter (*Lutra lutra*)
- Pine Marten (*Martes martes*)
- Pipistrelle (*Pipistrellus pipistrellus sensu lato*)
- Red Squirrel (*Sciurus vulgaris*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Whiskered Bat (*Myotis mystacinus*)

All these species are protected under the Irish Wildlife Acts. In addition, the otter *Lutra lutra* is protected under Annex II of the European Habitats Directive.

Terrestrial Mammals – Field Results

Red Fox

Fox was recorded on 5 trail cameras. All of the activity was recorded on the opposite riverbank to where the jetty is proposed.

Badger

Badger was recorded at one trail camera location during the survey. Two sightings were noted and this was in vicinity of agricultural grassland and linear habitat along the River Erne (opposite riverbank to the location of the jetty).

Otter

Otter was captured on three trail cameras in autumn 2025, one located in the agricultural field adjacent to Ducking Stool jetty and the two located on the opposite side of the River Erne in relation to Ducking Stool jetty. In addition, otter spraints were recorded on a rock in amongst a wooded area on the opposite riverbank to Ducking Stool Jetty. A little further downstream, an area where otters entered the water (i.e. Otter slide) was recorded. A mammal activity hole in amongst scrub was visible from the water during kayaking and this is also attributed to potential access point for otter from adjacent land into the river.

The 2026 otter trail camera survey provided evidence that otter does enter the spaces under the jetty, however, these were brief visits and no “Resting” was recorded. In addition, no Otter spraints were recorded on the rocks under the jetties during the walkover survey and therefore indicates that the visiting Otter is not marking the proposed development area as part of its territory.

Bats

A total of seven bat species were recorded during the bat static surveillance: Common pipistrelle, Soprano pipistrelle, Leisler’s bat, Nathusius’ pipistrelle, Daubenton’s bat, Natterer’s bat and Brown long-eared bat. The River Erne is an important riverine habitat for local bat populations, and this is reflected in the static surveillance results. There are a greater level of buildings and amenities on the riverbank on the side of the Ducking Stool jetty while the opposite riverbank for the 500m stretch on either side of the jetty is less developed with a greater degree of tall vegetation (i.e. trees) and less outdoor lighting. The river in vicinity of the jetty is approximately 40m wide and wider during flood conditions.

The jetty itself does not offer roosting opportunities for bats and as a result of the flood waters, the jetty was submerged for several weeks post flooding, which further reduces its suitability as a roosting site.

Full results and data from the otter and bat surveys undertaken by Bat Ecoservices are presented in the accompanying Appendices to this EclA.

Birds

A winter bird survey of the proposed walkway in Belturbet, Co. Cavan recorded a total of eight bird species, including grey heron, woodpigeon, pied wagtail, robin, blackbird, wren, hooded crow and starling. The species recorded are typical of the habitats present along the route, including hedgerows, trees and the River Erne. Most birds observed were either flying over the survey area or using adjacent habitats. One Amber-listed species, starling (SPEC 3), was recorded, while all other species are Green-listed and considered to be of favourable conservation status.

Aquatic Environment

Water Features and Quality

The application site is located within the Erne Hydrometric Area (36), Catchment (36), Sub-Catchment (030) and the Erne Sub-Basin (100). Instream works will take place within the River Erne.

The EPA has classified the ecological status of the River Erne at points immediately upstream of the Erne Bridge as poor, and status downstream of the Erne Bridge and at the application site is moderate. Moderate status remains in the River Erne until it flows into the Upper Lough Erne. Under the requirements of the Water Framework Directive, this is unsatisfactory and all water bodies are obliged to meet good status within a specified time frame. The next target date for meeting the objectives is 2027. The EPA have not cited the main pressure on the River Erne at points downstream of Belturbet, however upstream of Belturbet the main pressure is cited as agriculture.

The site is within the Clones Groundwater Body and the current status of this waterbody is noted to be good. However, it is considered to be *At Risk* of not maintaining its good status. Within the application site itself, groundwater vulnerability is noted to be extreme. The EPA cite the main pressures on groundwater in this area as being agriculture, anthropogenic pressures and domestic wastewater pressures.

Ecological Evaluation

Summary of the Value of the Application Site

The proposed redevelopment of the Ducking Stool Marina is located entirely within the Lough Oughter and Associated Loughs SAC. As the application site forms part of a European site designated under the Habitats Directive, it is considered to be of international importance, notwithstanding that the terrestrial habitats within the footprint of the proposed development are highly modified and are, in themselves, of low intrinsic ecological value.

The aquatic habitat associated with the marina forms part of the SAC and supports the ecological integrity of the designated site. During the ecological surveys, evidence of otter (*Lutra lutra*), a Qualifying Interest of the SAC, was recorded within the application site. Accordingly, the site is considered to be of international importance in respect of this species.

Bat surveys recorded seven species within and adjacent to the application site: Daubenton's bat (*Myotis daubentonii*), brown long-eared bat (*Plecotus auritus*), Leisler's bat (*Nyctalus leisleri*), common pipistrelle (*Pipistrellus pipistrellus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), soprano pipistrelle (*Pipistrellus pygmaeus*) and natterer's bat (*Myotis nattereri*). The diversity of bat species indicates that the site provides important foraging and commuting habitat and is therefore considered to be of high local importance for bats.

The marina and adjacent riparian habitats also provide suitable habitat for a range of breeding and wintering bird species. Although the site does not lie within a designated Special Protection Area (SPA), it supports bird populations of ecological value at the local level and contributes to the wider ecological network associated with the Erne catchment.

5. IMPACT ASSESSMENT

5.1 INTRODUCTION

The information gathered as part of the desk study for this proposed application has been used to complete an Ecological Impact Assessment (EclA). This EclA has been undertaken following the latest guidelines set out by CIEEM (2018) and the EPA.

The identification of potential impacts and the assessment of their significance typically requires the identification of the type and magnitude of the impacts. For example, will the impacts be short term or long term, direct, indirect or cumulative and will they occur during construction or operation. This section will establish whether ecological impacts of the proposed development at the marina in Belturbet are likely to occur and whether or not they are significant. These potential impacts will be examined with respect to the ecological receptors identified in the previous section.

The emphasis in EclA is on “significant” effects, rather than all ecological effects (CIEEM, 2018). For the purpose of EclA, a “significant effect” is an effect that either supports or undermines biodiversity conservation objectives for important ecological features for biodiversity in general. Conservation objectives may be specific (e.g., for a designated site) or broad (e.g., national / local nature conservation policy) or more wide-ranging (enhancement of biodiversity). Effects can be considered significant at a wide range of scales from international to local.

A significant effect is an effect that is sufficiently important to require assessment and reporting so that the decision maker is adequately informed of the environmental consequences of permitting the project. In broad terms, significant effects encompass impacts on structures and function of defined sites, habitats or ecosystems and the conservation status of habitats and species (including extent, abundance and distribution). (CIEEM, 2018).

5.2 POTENTIAL IMPACTS UPON DESIGNATED SITES

Natural Heritage Areas

The application site is not within or adjacent to any site designated as a Natural Heritage Area. There will be no impacts upon any pNHA or NHA arising from the proposed development.

Natura 2000 Sites

The proposed development at the Ducking Stool Jetty is located partially within the Lough Oughter and Associated Loughs SAC. A detailed evaluation of the available information has been undertaken, including an examination of the characteristics of the proposed development, the receiving environment and the potential pathways for impact. Having regard to the best scientific knowledge available and the application of the precautionary principle, it is the professional opinion of this author that it is not possible to conclude, on the basis of objective information, that the proposed development, either alone or in combination with other plans or projects, will not give rise to likely significant effects on the aforementioned European site.

As the development site is within the Zone of Influence of the Lough Oughter and Associated Loughs SAC, potential significant effects on the Qualifying Interest (QI) habitats and species of this SAC arising from the construction and operation of the proposed development cannot be ruled out.

The assessment has focused on those elements of the proposed development that have the potential to influence the integrity and conservation objectives of the identified Natura 2000 sites and protected species. The following areas were examined in relation to potential significant effects from the proposed development on the identified Natura 2000 sites:

1. Deterioration of water quality in the Lough Oughter and Associated Loughs SAC arising from pollution of surface water or ground water during site preparation and construction.
2. Deterioration of water quality in the Lough Oughter and Associated Loughs SAC arising from pollution of surface water or ground water during the operation of the site.
3. Habitat loss or fragmentation in the Lough Oughter and Associated Loughs SAC.
4. Effects upon the otter *Lutra lutra* which is a QI of the Lough Oughter and Associated Loughs SAC. Effects could arise from habitat loss, fragmentation, deterioration in water quality, lighting and anthropogenic impacts.
5. Cumulative impacts with other proposed/existing developments.

Deterioration in Water Quality in Designated Areas During Construction

During the construction phase of the proposed new marina at the Ducking Stool jetty, the principal risks to water quality will arise from instream works associated with piling, bank modification and installation of pontoons, as well as from general construction activities on adjacent lands. These works have the potential to generate elevated levels of suspended solids through disturbance of the riverbed and bank material. Without appropriate controls, fine sediment can be transported downstream and deposit within slower-moving reaches, where it may smother benthic habitats, reduce interstitial flow and impair the ecological functioning of the river. Excessive turbidity can reduce light penetration, interfere with fish migration and feeding behaviour, and affect the suitability of spawning substrates for sensitive species.

There is also a risk of accidental release of hydrocarbons, concrete leachate, cement washings or other construction-related contaminants. Concrete and uncured cementitious materials can significantly elevate pH if allowed to enter the watercourse, while fuels and lubricants associated with piling rigs, excavators or generators could cause toxic effects even at low concentrations. Pollutants mobilised by rainfall from stockpiles, temporary surfaces or exposed soils could be conveyed to the river via overland flow or the existing drainage network. If not effectively contained, such discharges may lead to localised chemical contamination or nutrient input, which could adversely affect qualifying interest habitats downstream, including the Natural eutrophic lakes feature of the SAC.

Construction compounds and storage areas also present potential pathways for contamination if materials are not managed correctly. Small but repeated spillages, poor housekeeping, or inadequate storage of oils, solvents or wet concrete products can act as chronic local sources of pollution. In combination, these risks underscore the need for stringent site management and protective measures to ensure that the construction phase does not give rise to significant adverse effects on water quality or on the conservation objectives of the Lough Oughter and Associated Loughs SAC.

Deterioration in Water Quality in Designated Areas Post Construction

Potential impacts on water quality arising from the operational phase of the development have also been assessed in detail. The principal risks relate to the discharge of untreated or inadequately treated surface water from the car park and other hardstanding areas into the River Erne. In the absence of appropriate attenuation and treatment, run-off may convey hydrocarbons, suspended solids, heavy metals or de-icing salts to the receiving environment. Such pollutants could lead to negative effects on surface water or groundwater within the Zone of Influence.

Groundwater and surface water interact within the hyporheic zone, the permeable transition area beneath the riverbed where shallow groundwater and surface water mix. Any decline in groundwater quality therefore has the potential to affect downstream surface waters, including those within the Lough Oughter and Associated Loughs SAC. Contaminated run-off could contribute to nutrient enrichment or chemical contamination, which may negatively affect the Natural eutrophic lakes habitat and its associated flora and fauna.

In addition, the operational phase will involve ongoing use of the marina by private and commercial vessels. Poorly maintained engines have the potential to leak fuel or lubricating oil, and small volumes discharged repeatedly can accumulate in sheltered waters. There is also a risk of greywater or blackwater being released from boats that lack compliant holding tanks or from improper use of pump-out facilities. These discharges can introduce hydrocarbons, detergents, organic waste and nutrients to the water column. While individual releases may be minor, cumulative inputs over time or from multiple vessels could lead to localised deterioration in water quality. This may encourage algal growth, alter dissolved oxygen levels and impair the ecological integrity of qualifying interests downstream.

Additional risks during operation include accidental spillages associated with refuelling, storage of maintenance materials within the marina compound, and the potential mobilisation of pollutants during heavy rainfall events. Without appropriate operational controls, these pathways could act as chronic sources of contamination, with potential to affect the conservation objectives of the SAC.

Habitat Loss and Fragmentation

The application site partially overlaps with the boundary of the Lough Oughter and Associated Loughs SAC. It is situated within an urbanised and residential area, and much of the site comprises modified habitats of limited biodiversity value. Nonetheless, a hedgerow is present along the eastern site boundary and a strip of willow scrub occurs along the riverbank to the north of the private dwelling.

Plans indicate that the section of willow scrub along the riverbank will be removed and replaced with a walkway, boulder edging and associated landscaping. This removal will result in the loss and fragmentation of riparian vegetation. Although the scrub is limited in extent, such habitat provides cover, foraging opportunities and commuting routes for local fauna, including otter, which is a Qualifying Interest of the Lough Oughter and Associated Loughs SAC. Any reduction in riparian continuity may diminish the ecological functionality of the river margin by reducing shelter, altering bank structure and increasing exposure to disturbance.

Effects upon the Otter *Lutra lutra*

Mammal surveys confirm that otter occurs within the site. Potential impacts on the SAC population may arise from a combination of direct habitat alteration, disturbance and water quality risks associated with construction and operation of the proposed marina.

Construction Phase

- Risk of a pollution event during the removal of the existing jetty or during instream works, with potential to degrade water quality and prey availability.
- Disturbance from increased artificial lighting associated with construction activities, which may deter otter from using the affected bank.
- Disturbance from increased noise, vibration and human presence.
- Loss of riparian habitat and cover along the riverbank to facilitate construction of the proposed walkway, reducing opportunities for resting, foraging and commuting.

Operational Phase

- Disturbance from increased lighting associated with the marina, altering nocturnal behaviour and reducing the suitability of the affected bank as a movement corridor.
- Disturbance from increased human activity and noise arising from marina use.
- Risk of water quality deterioration due to boating activities, including minor fuel leaks, wastewater discharge or accidental spillages, which may affect prey species and overall habitat quality.

In determining the significance of the potential impact, the following factors have been considered:

- Small proposed development area;
- No holt or resting sites are located within the proposed development area;
- Extent of foraging and commuting habitat associated with the River Erne in the Belturbet area.

The potential impacts of the proposed development on otter during construction is deemed to be Negative, Slight Significant impacts in the long-term.

Cumulative Impacts

The potential for cumulative impacts arising from other significant existing or permitted infrastructure are assessed here. Cumulative impacts encompass the combined effects of multiple developments or activities on a range of receptors. Potential cumulative impacts associated with the existing and permitted significant infrastructure within the same water catchments as the proposed development should be considered.

As part of the Appropriate Assessment, in addition to the proposed works, other relevant projects and plans in the region must also be considered. This step aims to identify at this stage any possible significant in-combination or cumulative effects / impacts of the proposed works on the Natura 2000 sites with other such plans and projects.

Cavan County Development Plan

Planning policy at the local level is provided by the Cavan County Development Plan 2022–2028. This plan contains a number of policies relevant to the ecology and nature conservation in Co. Cavan. These are summarised below:

Policy / Objective NHEP₁ - To protect, conserve, manage, enhance and safeguard natural amenity assets and natural heritage features for future generations while maximising their recreational, amenity and tourism potential for the present generation by resisting development that could have a negative impact.

NHEP₂ - To maximise the social, economic and environmental benefits that may be derived from the conservation and management of Cavan's Natural Heritage and green infrastructure.

NHEP₄ - To protect, manage, conserve and seek to enhance the County's biodiversity.

NHEP₅ - To integrate biodiversity consideration into all County activities through the County Biodiversity Action Plan process.

NHEP₆ - To ensure the protection of species of flora and fauna afforded legal protection under Irish and European Legislation.

NHEP₇ - To assess the impact of biodiversity of proposals for large developments, particularly those on Greenfield sites, or in environmentally sensitive areas. Such developments must include measures for the enhancement and protection of biodiversity.

NHEO₂ - To promote the conservation of biodiversity outside of designated areas, including features such as wetlands, woodlands, hedgerows and uplands.

Future Plans / Other Projects

The Cavan County Council planning map tool was used to identify any future plans or projects in the Belturbet area which may potentially impact in combination with the proposed works on the designated sites identified. A search was made for applications in Belturbet within the last three years. In this time, a number of other small scale domestic, commercial and agricultural developments were permitted in the wider Belturbet area. Where necessary, these developments were either screened for AA, or where effects upon the Lough Oughter and Associated Loughs SAC could not be ruled out, a NIS was submitted.

In relation to current and future planning applications, Cavan County Council, as the competent authority, will screen each application for AA. Any new application will be examined and the requirement for screening for AA (NIS) will be determined on a case by case basis to comply with the requirements of Article 6 of the Habitats Directive. Therefore, it is not considered that there will be any significant adverse in combination effects with the proposed works and any other development.

In summary, it is considered that with the implementation of effective mitigation (see Section 5) to avoid/minimise any potential adverse impacts, there will be no potential for cumulative impacts arising in combination with any other plans or project which would be of significance in respect of impacts affecting the conservation objectives or integrity of Lough Oughter and Associated Loughs SAC.

Other Potential Effects

Construction and Operational Phases

Spread of Invasive Species – Japanese knotweed has not been recorded growing within the application site, however it is frequent in the Belturbet area and it grows along the banks of the River Erne further downstream near the main marine. Japanese knotweed can propagate readily from very small fragments of vegetative material, particularly rhizomes, but also from stem fragments. Consequently, any disturbance of contaminated soils or accidental movement of plant material during construction has the potential to facilitate the spread of this invasive species. The establishment of Japanese knotweed within or adjacent to the site could adversely affect native vegetation, reduce local biodiversity and create significant long-term management issues. Appropriate pre-construction checks should therefore be undertaken, and if knotweed is identified within or adjacent to the works area, all works should be carried out in accordance with best practice guidance to prevent its spread.

Impacts on Fauna

Breeding / Passerine Birds

The removal of trees and hedgerows within the site will result in the loss of suitable nesting, feeding and perching sites for birds. In addition, site preparation and construction activities are expected to generate elevated noise levels, increased human presence and intensified vehicle movements, all of which have the potential to cause disturbance to local bird and mammal populations. Any fauna utilising the site's hedgerows for foraging, commuting or shelter may become displaced as a result of these disturbances, particularly during sensitive periods such as the bird breeding and nesting season.

Wintering Birds

The application site is not considered to provide any significant habitat resource for wintering birds. Significant effects upon any species of wintering bird are not anticipated.

Terrestrial Mammals

No badger setts or signs were observed within the site; however, badgers were noted on the trail camera on the opposite side of the River Erne. No significant effects upon badgers are anticipated.

Bats

The potential impacts of the proposed development on local bat populations within the project area are considered across each phase in terms of the following aspects, where relevant:

Construction Phase

- a) Disturbance due to increased lighting.
- b) Disturbance due to increased noise.
- c) Loss of foraging habitat to facilitate construction of proposed development.

Operation Phase

- a) Disturbance due to increased lighting.
- b) Disturbance due to increased noise.

The degree of potential impact varies depending on the bat species and the type of roosts recorded and their location relative to the proposed development.

Daubenton's bat (*Myotis daubentonii*) is considered to be a light-sensitive species and was recorded at a high level of activity within the application site. In assessing the significance of potential impacts, the following factors have been taken into account:

- The relatively small footprint of the proposed development.
- The absence of roosting sites within the application site.
- The extensive availability of alternative commuting and foraging habitat associated with the River Erne corridor.

Having regard to these factors, the construction phase is predicted to result in a Negative, Not Significant, Long-term impact on local bat populations.

Landscaping

The introduction of non-native or invasive plant species during landscaping presents a potential ecological risk to biodiversity at a local level. However, with appropriate planting design, the landscaped areas can significantly enhance the site's biodiversity value. The use of native tree and shrub species such as hawthorn (*Crataegus monogyna*), holly (*Ilex aquifolium*), hazel (*Corylus avellana*), and rowan (*Sorbus aucuparia*) would provide foraging and nesting opportunities for birds, as well as nectar and pollen resources for local pollinators. Managing verges and green spaces for wildlife—such as adopting reduced mowing regimes and seasonal wildflower management—would further support pollinator populations and biodiversity connectivity.

Lighting

The new marina may increase the baseline level of artificial light in the area. This may negatively affect light-sensitive bat species, particularly those that forage or commute along hedgerows, treelines and watercourse corridors. Light spill directed towards these features can alter foraging behaviour, delay roost emergence or discourage use of key flight paths.

6. MITIGATION AND MONITORING

6.1 MITIGATION

The primary method of mitigation for any development should be avoidance of that impact. Consideration was therefore given to avoiding any direct or indirect impacts on the sensitive ecological receptors within the site.

In order to avoid protect the existing ecological features on site and surrounding area, the following mitigation measures are recommended. The mitigation measures outlined in this report are site specific and they should be incorporated into a Construction and Environmental Management Plan.

These measures are also contained in the NIS that has been prepared to accompany this planning application.

6.2 CONSTRUCTION PHASE MITIGATION

Pre-Construction and Construction

- Prior to the commencement of any site works, the applicant and the contactors must be made aware of the overall sensitivity of this site. They must be made familiar with the overall content of this NIS and they must be made aware of the mitigation measures contained in this NIS.
- Site preparation and construction must be confined to the development site only and should adhere to all the mitigation measures outlined in this EclA and the NIS.
- Work areas must be kept to the minimum area required to carry out the proposed works and the area must be clearly marked out in advance of the proposed works.
- Any construction waste must be removed by a licensed contractor to a registered facility. Records of waste movement and disposal should be retained and provided to the Local Authority upon request. There must be no disposal or deposition of soil or excavated material along with river bank, elsewhere in the SAC or in any other designated area.
- Site preparation and construction must conform to the Inland Fisheries Ireland Requirements for the Protection of Fisheries Habitats during Construction and Development Works at River Sites (www.fisheriesireland.ie) and The Guidelines on Protection of Fisheries During Construction Works in and Adjacent to Waters (IFI, 2016).

- Consultation with IFI regarding timing of works must be undertaken. Works must not take place in the closed season for salmonids, i.e., October to May unless otherwise approved by IFI. IFI must be notified prior to the commencement of works and regular inspections by IFI during all instream works must be undertaken.
- It is vital that no deterioration of water quality occurs in the River Erne or the watercourses that connect to it. To protect sensitive habitats and species, strict controls must be applied to erosion, sediment, and pollutant generation. This includes attenuation measures such as silt traps and geotextile curtains. The following best practice documents should be followed:
 - CIRIA (2005): Environmental Good Practice on Site (C692)
 - CIRIA (2001): Control of Water Pollution from Construction Sites (C532)
 - CIRIA (2000): Environmental Handbook for Building and Civil Engineering Projects (C512)
 - EPA (2015): List of Waste and Determining if Waste is Hazardous or Non-Hazardous
 - Environment Agency (2015): Technical Guidance WM3 – Waste Classification

Management of Fuel / Oil

Site management must include routine inspection of equipment, material storage areas and drainage features to ensure all protective measures are functioning correctly. The objective is to prevent accidental leaks and to ensure containment.

Appropriate fuel management for the construction of the project must include:

- Tanks and drums must be stored in secure, impermeable areas on flat ground and located at least 50 metres from the River Erne or any other watercourse, drain or gully.
- Fuel containers must be stored within secondary containment such as bunds for static tanks or drip trays for mobile stores. Chemicals must be banded or stored in double-skinned containers capable of holding 110% of contents.
- All ancillary equipment, including hoses and pipes, must be retained within the banded area.
- Taps, nozzles and valves must be fitted with locking mechanisms and inspected regularly for leaks or damage. Tanks and drums will be subject to the same checks.
- Where refuelling of plant is required, it must be undertaken only within a designated area of the temporary construction compound using a delivery fuel truck operated by trained personnel. Only authorised trained operators will refuel plant.

- Rigid and articulated vehicles and all site vehicles (jeeps, cars and vans) must be refuelled off-site.
- Only mechanically sound plant must be permitted on site.
- All control and containment measures must be inspected and maintained. Bunds, gullies, pipework and oil interceptors must be cleaned and serviced regularly to ensure optimal performance.
- Emergency procedures and contingency plans must be in place prior to commencement of works. Spill kits containing booms and absorbent materials must be kept on site, checked regularly and replenished as required. All crews must be trained in spill response.
- For major spills, contact details for an appropriate emergency response service must be kept in the site office.

Management of Concrete

Concrete works will be required during construction of the mainland components. Wet concrete is silty and highly alkaline; preventing accidental release to surface or groundwater is essential.

The following measures will apply:

- A trained operator experienced in concrete handling must be present during pours. Works must be supervised by the Construction Manager, a suitably qualified engineer and the Environmental Manager/ECOW.
- Pour areas must be fully drained before works begin. No concrete shall be poured during prolonged or heavy rainfall or during periods of forecasted intense rain.
- Small volumes of washwater generated by cleaning hand tools, mixers or other plant must be retained on site, allowed to settle and neutralise, and only then released to ground. Settled solids must be removed and disposed of off-site.
- Concrete truck washout must not take place on site.

Excavations

All excavations must be supervised by a suitably qualified and experienced engineer. Method statements will be reviewed and approved before works commence.

- Bulk excavations will be undertaken during dry weather to minimise runoff. No excavation shall take place during heavy or severe rainfall.
- Temporary cuts and excavations must be stabilised or supported as required. Where necessary, cut-off drains must be used to prevent water ingress or erosion.
- Temporary works must be designed to avoid interference with existing drainage regimes.
- Plant and materials will be stored only within designated compounds and not positioned in a way that could surcharge existing or newly formed slopes.
- All excavated soils will be retained on site for reuse in bunding, landscaping and reinstatement. If soils or excavated material must be removed, it should be removed by a registered contractor to a registered site.
- Stockpiling of soil should be avoided as far as possible. No permanent stockpiles must remain after construction.
- Silt control measures must be in place before excavations begin. Temporary stockpiles will be placed on level ground at least 50 metres from the River Erne and any other waterbody or drain, with silt fences or similar measures installed on downgradient sides.

Storage

All storage of materials, containers, stockpiles and waste must follow best practice and take place only within designated areas of the works footprint. Containers must be stored upright and clearly labelled. Storage will be located:

- At least 50 metres from the River Erne and any other waterbody or drain.
- On an impermeable base.
- Under cover.
- In secure areas.
- Away from moving plant and vehicles.

All stockpiles should be inspected as part of routine site checks and monitored for invasive alien species.

In-Stream Piling and Excavation Works

Piling of the riverbed will be required for installation of the marina infrastructure. River bank stabilisation works will also be required. These works will create a direct pathway for sediment release with potential to affect water quality within Lough Oughter and Associated Loughs SAC.

- A continuous silt curtain must be installed around the works area before excavation begins. The curtain will be disinfected prior to delivery to site as part of site biosecurity.
- The curtain must be constructed as a single, joint-free length and secured using clean concrete blocks and ropes.
- Any excavated soft material must be placed in a skip on a pontoon and removed from site for appropriate disposal.
- Visual inspections of the silt-curtained area will be carried out throughout works. Turbidity and pH will be monitored using handheld equipment inside and outside the enclosure.
- If any discolouration is identified outside the curtain, works will cease until the cause is addressed.

Construction Noise and Disturbance

To minimise disturbance to fauna including the otter the following measures are proposed to reduce noise:

- The construction plant and tools used on-site must comply with the relevant Irish regulations in relation to noise and vibration requirements. In particular, it is recommended that all equipment used on site are newer models equipped with noise dampening systems and that the equipment is maintained in good condition and serviced regularly. Site management must also ensure that each item of plant and equipment complies with the noise limits quoted in the relevant European Commission Directive 2000/14/EC. All plant and equipment should be fitted with appropriate mufflers or silencers of the type recommended by the manufacturer. Only plant and equipment that has been designed for that task should be used and all equipment should be shut down or set to minimum when not being used.
- Any compressors required should be sound-reduced models with sealed acoustic covers.

Biosecurity / Control of Invasive Species

Japanese knotweed is known to occur along the River Erne to the north of the site, although it is currently not noted within the application site area (based on survey in December 2025). A pre-construction IAS survey should be undertaken again by a qualified ecologist during the late spring or summer.

To prevent the spread of invasive species during the works, biosecurity measures must be implemented in accordance with:

- The Management of Noxious Weeds and Non-native Invasive Species on National Roads (NRA, 2010).
- Invasive Species Ireland best practice guidance.
- IFI Biosecurity Protocol for Field Survey Work (2010).

Measures include:

- All plant, machinery and vehicles must arrive on site clean and free of invasive species, with validation provided by suppliers.
- All imported materials (soil, fill, sand, gravel, landscaping materials) must be certified as free of invasive species.
- Vehicles, machinery and PPE must be visually inspected and cleaned prior to use on site.
- Where works occur near IAS-infested areas, additional controls must be implemented under direction of the ECoW.
- Any equipment entering water must be treated before and after use to prevent spread of aquatic IAS.

Protection of Otters

The following mitigation measures have been specifically recommended for the protection of the otter within the SAC and the Zone of Influence of the application site. These measures have been recommended by Dr Tina Aughney following the completion of trail cam surveys of the site.

- Retention of Natural Vegetation - The initial plan allowed for the removal of existing bankside vegetation to the rear of the private residence, and the creation of a new pathway and landscaping in this area. In order to protect otters, it was recommended that this does not occur and that it is allowed to remain wild. This would retain suitable otter habitat whilst reducing the potential for direct human disturbance and disturbance through lighting during

operation. Following on from this recommendation, the plans were reviewed and the proposed path in this area has now been omitted. This plan should be adhered to.

- **Physical Barriers** - The installation of fencing is generally not recommended as it can impede mammal movement and may cause stress or entrapment if mammals enter the site and cannot exit. Where fencing is required for safety or security reasons, it must be designed to maintain permeability for wildlife. Purpose-designed access points will be incorporated at strategic locations, including along known mammal trails, and sized to allow larger mammals such as badger and fox to pass safely through the site. This approach ensures that terrestrial mammals can continue to move freely through the landscape and are not trapped or funnelled by impermeable boundary features.
- **Access** - It is important that once the works are completed that there is access for otters to use the rock area under the jetties. Therefore, no obstacles should be constructed as part of the proposed development to prevent otters from using this area.

6.3 OPERATIONAL PHASE

Surface Water and Runoff Management (Car Park and Hardstanding Areas)

- Surface water runoff from the car park and access roads must be directed through the onsite Sustainable Urban Drainage System (SuDS), including attenuation, filtration and controlled discharge, to reduce the potential for pollutants entering the River Erne.
- All surface water drainage from hardstanding must pass through silt-trap sumps prior to entering the watercourse.
- Runoff from areas with potential hydrocarbon contamination must be routed through a Class I bypass petrol interceptor with alarm/automatic shut-off prior to discharge.
- The drainage system must be inspected and maintained at scheduled intervals by the marina operator, including removal of silt from manholes, sumps and channels.
- Regular sweeping of the car park and paved areas must be undertaken to prevent build-up of debris, hydrocarbons and sediments that may become mobilised during rainfall.
- Any detergents or cleaning agents used by staff must be biodegradable and phosphate-free.
- A log must be maintained for all drainage inspections, maintenance and incidents.

Boat Operation and Marina Management

Fuel and Oil Controls

- Only vessels in good working order must be permitted to berth; boats showing signs of fuel or oil leakage should be refused entry until repaired.
- Refuelling (if allowed onsite) must occur only at a designated refuelling berth equipped with spill kits, absorbent pads and drip trays.
- When refuelling, boat operators must be required to remain at the pump and use absorbent pads underneath nozzles.
- No bulk fuel storage must occur on pontoons. Any storage areas on land will be bunded, impermeable and subject to routine inspection.
- Marina staff must carry out routine visual checks for sheens, floating contaminants and bilge discharge within the marina basin.

Bilge Water and Sewage Management

- Discharge of untreated bilge water or sewage to the marina basin must be prohibited and clearly communicated to boat owners through signage and mooring agreements.
- Pump-out facilities (if provided at the marina) must be maintained and operated to prevent spillage.
- Boat owners must be encouraged to use environmentally approved bilge-cleaning products only.

Water Quality Protection

- Spill response kits, including booms, absorbent pads and granules, must be located at strategic points along the marina and accessible to staff at all times.
- A spill response procedure must be maintained as part of the Marina Operational Plan and all staff will be trained in its implementation.
- Any accidental spill must be reported immediately to Cavan County Council and Inland Fisheries Ireland in accordance with incident-reporting requirements.
- Regular water quality monitoring (visual inspection for turbidity, sheen, debris and monthly pH/turbidity checks using handheld meters) must be undertaken to ensure no decline in water quality within the marina basin.

Waste, Litter and Materials Management

- Adequate waste and recycling facilities must be provided on land in sheltered, covered, impermeable areas and emptied regularly.
- Disposal of oils, filters, batteries or hazardous materials from boats must take place only at designated hazardous waste collection points off-site.
- Litter control measures must be implemented around the marina, including daily inspections and removal of floating debris.
- Clear user guidelines must be displayed for all marina users on waste management, refuelling and environmental responsibilities.

Biosecurity and Invasive Species Management

- The marina should adopt a “Check, Clean, Dry” policy for all visiting vessels, equipment, trailers and personal watercraft.
- Signage must be installed to instruct boat users on preventing the spread of invasive species such as zebra mussel and curly waterweed.
- Boats arriving from other catchments must be required to provide confirmation that hulls, propellers and intakes are free from invasive species before berthing.
- Annual marina inspections for invasive aquatic plants should be undertaken by a qualified ecologist, with rapid response measures activated if any are detected.

Lighting

The following lighting measures have been recommended. These measures will protect both otters and the seven species of bats that were recorded commuting and foraging within the vicinity of the application site.

It is recommended that outdoor lighting is limited in the car parking area and where lighting is required, luminaire design will be extremely important to achieve an appropriate lighting regime. Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires. This is taken from the most recent BCT Lighting Guidelines (BCT, 2023). It is important that the client checks that any outdoor lighting meets the following guidelines:

- Consideration of a Smart Lighting System where lighting only comes when human activity is detected in the car park, thereby reducing unnecessary lighting particularly during the later hours of the night when there is little or no human activity.

- No lighting should be erected within 25m of the River Erne.
- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp-cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700 Kelvin or lower) should be adopted to reduce blue light component of luminaires. A 2200 - 2700 Kelvin luminaire appears as a warm yellow due to the reduction in the stark blue light associated with higher Kelvin values (e.g. 4000 Kelvins).
- The “warmer” the light, the less of an impact on nocturnal wildlife. The progression of LED technology means that the majority of luminaires are available at 2700 Kelvins and 2200. Therefore, it is recommended that such luminaires (i.e. 2200 Kelvin) are standard for “biodiversity areas”. The lower the Kelvin level the more Yellow the light appears.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats.
- Waymarking inground markers (low output with cowls or similar to minimised upward light spill) to delineate path edges, if required, for pedestrian zones within the proposed development area should be used.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security light should be set on motion sensors and set to as short a possible a timer as the risk assessment will allow (e.g. 1-2 minute timer).
- Only if all other options have been explored, accessories such as baffles, hoods or louvers can be used to reduce light spill and direct it only to where it is needed.

Any external lighting for the proposed development should strictly follow the above guidelines and these should be strictly implemented during construction and operation phase of the

proposed development. It is also recommended that this system is motion sensed to ensure that it is off when there is no human activity in vicinity of the proposed development site.

If lighting is deemed necessary, then the final lighting design is required to be review and signed off by a bat specialist.

6.4 MONITORING

The following monitoring measures are recommended:

- Any trees and bat boxes should be monitored once the development is operational.

7. **RESIDUAL IMPACTS AND CONCLUSIONS**

With the recommended mitigation measures, it can be concluded that the proposed development in Belturbet will have a minor residual negative impact upon the local ecology and biodiversity of the area. The creation of new habitats on the site through landscaping will be a positive benefit to local ecology and with proper management of the site and its green areas, then local areas of biodiversity will be allowed to develop.

APPENDIX I – REFERENCES

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APPENDIX II

1. Terrestrial Mammal and Bat Survey (Bat Eco Services Ltd)
2. Bird Survey (Joesph Adamson)