

ECOLOGICAL IMPACT ASSESSMENT (EcIA) OF PROPOSED PARK UPGRADES AT  
LAYTOWN, CO MEATH

May 2023



Prepared May 2023 by:



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## EXECUTIVE SUMMARY

*Meath County Council intend to undertake upgrade works to the existing Laytown Park at Laytown, County Meath. The proposed site covers approximately 3 Ha in area, some of which is within the River Nanny Estuary and Shore Special Protection Area, a Natura 2000 site. The location of the proposed park upgrades at Laytown is in an ecologically sensitive area (part of the park area is within the River Nanny Estuary and Shore Special Protection Area). Please note that boundaries illustrated within are indicative. While the full scheme of upgrades was assessed within this document, only those parts which are proposed on lands in Meath Co. Council ownership are proposed in the current application*

*The purpose of this report is to assess the Ecological Impact of the proposed works. An Appropriate Assessment screening/Natura Impact Statement and an EIA screening report have been prepared with regard to the proposed park upgrades at Laytown.*

*This Ecological Impact Assessment (EclA) concludes that there will be no significant negative impacts of the proposed park upgrades on the ecological resource present. In fact, through discouraging the use of desire-lines through the degraded dune habitat, the overall quality of the habitat will be improved.*

# Contents

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1	Introduction .....	1
1.1	FERS Company Background .....	1
1.2	Aims of this report .....	1
1.3	Description of proposed project .....	2
2	Survey Methodology .....	7
2.1	Desk Study.....	7
2.1.1	NPWS database .....	7
2.1.2	NBDC Database .....	7
2.1.3	I-WeBS Data .....	8
2.1.4	Other relevant datasets .....	8
2.2	Field surveys.....	9
2.2.1	Botanical/Habitat surveys.....	9
2.2.2	GIS .....	11
2.2.3	Bird Surveys.....	12
2.2.4	Non-volant Mammal survey .....	12
2.2.5	Bat Surveys.....	13
3	Results.....	14
3.1	Desk Study.....	14
3.1.1	National Parks and Wildlife Service database.....	14
3.1.2	National Biodiversity Data Centre database.....	18
3.2	I-WeBS data.....	20
3.2.1	Other relevant data sources .....	22
3.2.2	EIA Portal.....	23
3.2.3	National Planning Application Database.....	23
3.3	Field Surveys .....	25
3.3.1	Botanical/Habitat survey .....	25

3.3.2	Species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011.....	28
3.3.3	Bird Surveys.....	29
3.4	Mammal Surveys.....	34
3.4.1	Non volant Mammal surveys (including badger) .....	34
3.4.2	Bat Roost Potential Survey.....	34
4	Summary of findings .....	35
4.1	Elements or particular areas of specific potential for biodiversity or conservation interest; .. .....	35
4.2	Elements with the potential to damage the ecological integrity of the study area .....	35
4.3	Presence of ecological corridors/stepping stones within the study area.....	35
4.4	Conservation priorities regarding the identified biodiversity resource of the site .....	36
4.5	Potential impacts and mitigation measures .....	36
4.5.1	Potential Impacts .....	36
4.5.2	Mitigation Measures.....	37
5	Conclusions .....	39
6	Appendix I – list of plant species observed.....	40
7	Appendix 2 – Habitat Map .....	43
8	References and Bibliography .....	44

# 1 Introduction

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## 1.1 FERS Company Background

Forest, Environmental Research and Services have been conducting ecological surveys and research since the company's formation in 2005 by Dr Patrick Moran and Dr Kevin Black. Dr Moran, the principal ecologist with FERS, holds a 1<sup>st</sup> class honours degree in Environmental Biology (UCD), a Ph.D. in Ecology (UCD), a Diploma in EIA and SEA management (UCD) a Diploma in Environmental and Planning Law (King's Inn) and a M.Sc. in Geographical Information Systems and Remote Sensing (University of Ulster, Coleraine). Patrick has in excess of 20 years of experience in carrying out ecological surveys on both an academic and a professional basis. Dr Emma Reeves, senior ecologist with FERS holds a 1<sup>st</sup> class honours degree in Botany, and a Ph.D. in Botany. Emma has in excess of 15 years of experience in undertaking ecological surveys on an academic and professional basis. Ciarán Byrne, a senior ecologist with FERS holds a 1<sup>st</sup> class honours degree in Environmental Management (DIT) and a M.Sc. in Applied Science/Ecological Assessment (UCC). Ciarán has in excess of 10 years in undertaking ecological surveys on both an academic and a professional basis.

FERS client list includes National Parks and Wildlife Service, An Bord Pleanála, various County Councils, the Heritage Council, Teagasc, University College Dublin, the Environmental Protection Agency, Inland Waterways Association of Ireland, the Department of Agriculture, the Office of Public Works and Coillte in addition to numerous private individuals and companies.

## 1.2 Aims of this report

The primary aim of the ecological impact assessment (EclA) is to provide a baseline of ecological data for the study area concerned, allowing a comprehensive assessment of any potential impacts of the proposed development on the local ecological resource. The primary aims of the Ecological Impact Assessment are:

- To survey habitats, flora, and fauna within the study area;
- To prepare a Habitat Map of the area;
- To assess the potential presence, distribution and conservation status of ecological habitats and species of flora/fauna within the study area;

- To highlight elements or particular areas of specific potential for biodiversity or conservation interest;
- To highlight elements with the potential to damage the ecological integrity of the study area, such as Alien Invasive Plant Species;
- To identify the potential presence and effectiveness of ecological corridors/stepping stones within the study area;
- To assess and make recommendations on conservation priorities regarding the identified biodiversity resource of the site; and
- Where potential impacts are identified, detailed and comprehensive mitigation measures will be proposed, which will include avoidance of an element(s) if, and where deemed necessary.

### 1.3 Description of proposed project

Meath Co. Council are proposing upgrades to the existing beach-front park at Laytown. The design objectives of the proposed upgrading of the existing Laytown Park will comprise:

- 1) Creating a network of new links and connections between the town and the seashore that activate the area;
- 2) Making the Park functional and safe by providing open space and panoramic views, as well as adequate signage and landscape furniture;
- 3) Offering a wide range of interactive and innovative play experiences catering for all age groups and abilities;
- 4) Making Laytown Park a destination for the town by offering a wide range of activities, spaces to relax, gathering with friends and families;
- 5) Promote education through supporting interaction and interpretation of the site and all components within it; and
- 6) Protecting the natural habitat and environment of the sand dunes and enhancing biodiversity value of existing green spaces.

One of the primary drivers behind the design, given the ecological sensitivity of the site must be that any impact on the existing natural characteristics of the site is minimal. The indicative boundary of the proposed park upgrades is illustrated in Figure 1, Figure 2, Figure 3 and Figure 4. Please note that boundaries illustrated here are indicative. While the full scheme of upgrades was assessed within this document, only those parts which are proposed on lands in Meath Co. Council ownership are proposed in the current application. An excerpt from the Architect's Drawings of the proposed park layout is illustrated in Figure 5. A drawing illustrating an Artist's Impression of the park is illustrated in Figure 6.

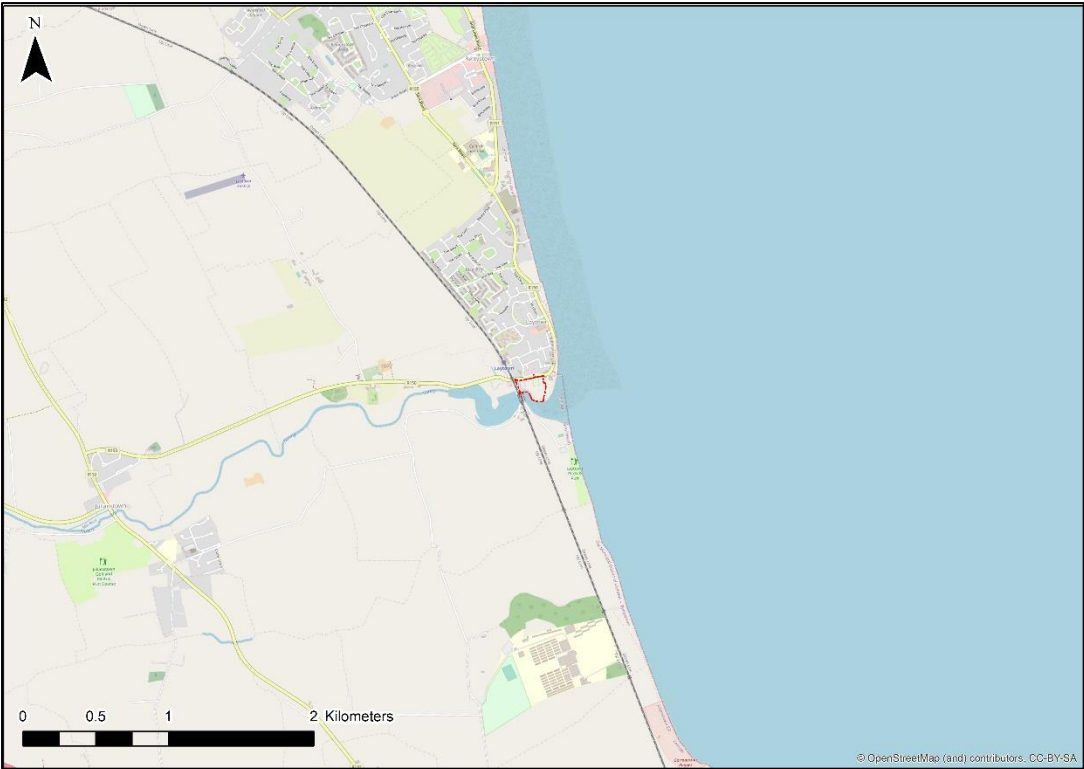


Figure 1: Approximate location of proposed park upgrades site (1:25,000)

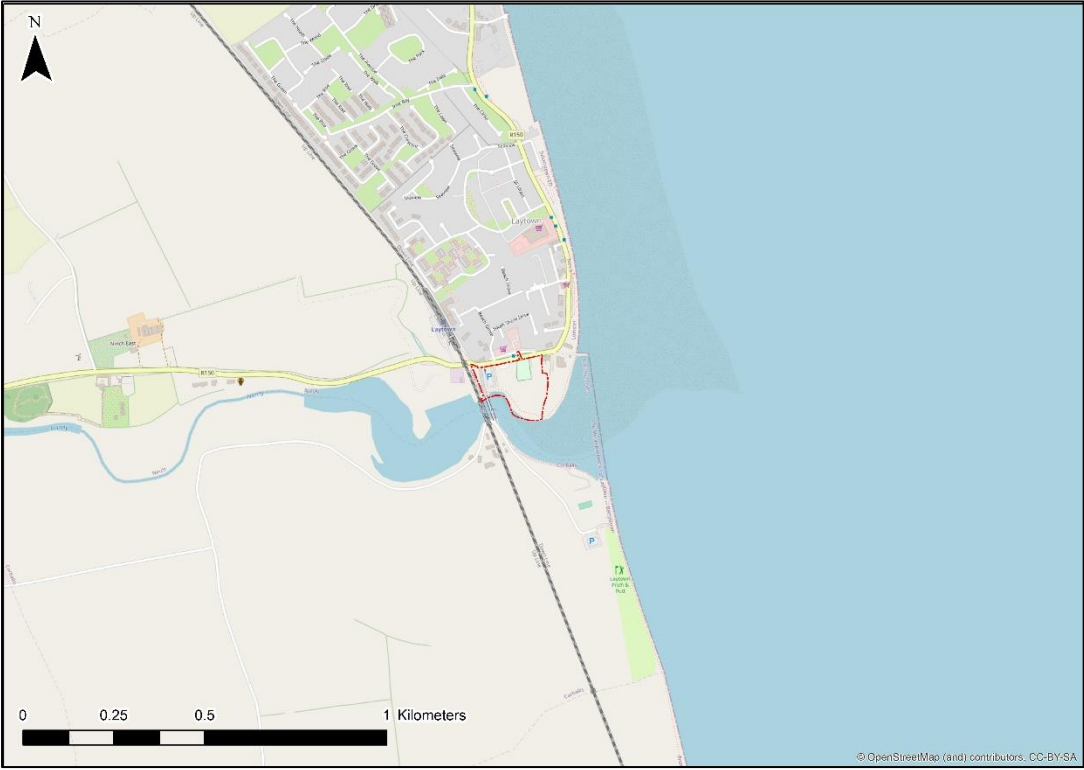


Figure 2: Approximate location of proposed park upgrades site (1:10,000)



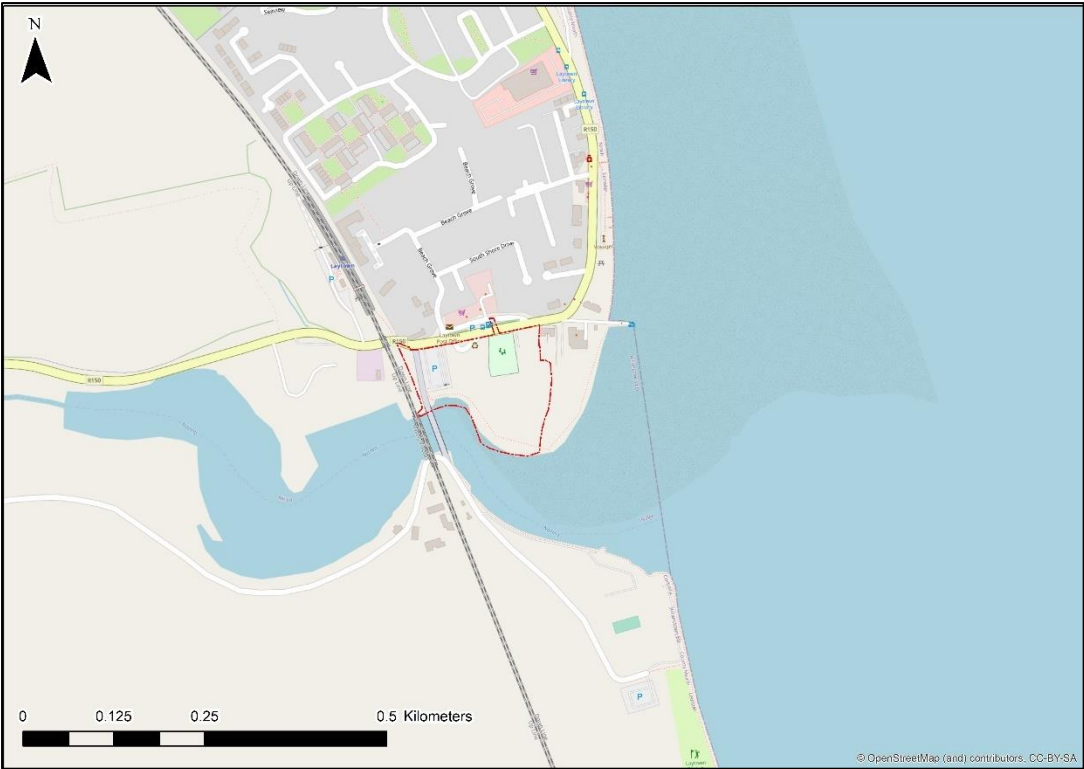


Figure 3: Approximate location of proposed park upgrades site (1:5,000)



Figure 4: Approximate location of proposed park upgrades site (1:1,500)



Figure 5: Proposed park upgrades layout



Figure 6: Artist's Impression of Laytown Park

## 2 Survey Methodology

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### 2.1 Desk Study

#### 2.1.1 NPWS database

The primary body consulted with regard to matters involving ecology within the Republic of Ireland is the National Parks and Wildlife Service (NPWS). The role of the NPWS is:

- To secure the conservation of a representative range of ecosystems and maintain and enhance populations of flora and fauna in Ireland;
- To implement the EU Habitats and Birds Directives;
- To designate and advise on the protection of Natural Heritage Areas (NHA) having particular regard to the need to consult with interested parties;
- To make the necessary arrangements for the implementation of National and EU legislation and policies and for the ratification and implementation of the range of international Conventions and Agreements relating to the natural heritage; and
- To manage, maintain and develop State-owned National Parks and Nature Reserves.

The desk study as pertaining to this survey involved querying the NPWS database for information pertaining to designated sites (Special Areas of Conservation (SAC) and Special Protection Areas (SPA) occurring within 15km, Natural Heritage Areas (NHA) and Proposed Natural Heritage Areas (pNHA) occurring within 5 km) proximate to the proposed development.

#### 2.1.2 NBDC Database

In addition to consulting the NPWS database, the National Biodiversity Data Centre Database was consulted regarding species of conservation concern recorded as occurring within the vicinity of the study area within a user defined polygon.

### 2.1.3 *I-WeBS Data*

Each winter over 400 skilled volunteers, NPWS Rangers and BirdWatch Ireland staff monitor wintering waterbird populations at their wetland sites across the Republic of Ireland. The Irish Wetland Bird Survey (I-WeBS) is coordinated by BirdWatch Ireland and funded by the National Parks and Wildlife Service. The available I-WeBS data for the vicinity was queried.

### 2.1.4 *Other relevant datasets*

Other relevant datasets were queried where appropriate

## 2.2 Field surveys

### 2.2.1 Botanical/Habitat surveys

Surveys of vegetation occurring within the study area were undertaken by Dr Emma Reeves on the 7<sup>th</sup> of April and the 15<sup>th</sup> of May. Botanical surveys were undertaken within the optimal timeframe for such surveys. Nomenclature follows “Webb’s An Irish Flora” (2012 – 8<sup>th</sup> Edn) and “Mosses and Liverworts of Britain and Ireland a Field Guide” (2010) The surveys consisted of walk-over surveys. The surveys recorded all species of flora observed occurring within the study area. The botanical surveys placed particular emphasis on rare, protected, or annexed habitats/species by reference to -

- a) Irish Plant Red Data Book;
- b) Habitats listed on Annex I of the EU Habitats Directive;
- c) Species listed on Annex II of the EU Habitats Directive; and
- d) Ecological stepping-stones and ecological corridors (as covered under Article 10 of the EU Habitats Directive).

A written description of habitat within the receiving environment was recorded, including the dominant species occurring. Photographs of representative areas of habitat and species are presented. A habitat map was prepared using ArcGIS 10.8. An evaluation of the ecological significance of flora and habitats occurring within the site relative to surrounding habitats was also undertaken.

#### 2.2.1.1 Species of Invasive Alien Plants listed on Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011 (as amended)

The human introduction of alien plant species into ecosystems (intentionally or unintentionally) is historically a common-place occurrence. The vast majority of these alien plant species, when introduced into a foreign ecosystem for which they are not adapted, will die without specific care. In a small number of cases, however, these plants can come to dominate the ecosystem into which they have been introduced and become “Invasive”. There is presently a great deal of concern regarding the potential for invasive plant species to threaten the species composition, community structure and overall biodiversity of native Irish habitats. Invasive species can change the character and/or condition of an ecosystem over an extensive area through several mechanisms, depending on the species of plant and the nature of the habitat. There are more than 30 species on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011 as amended. Riparian systems are particularly vulnerable to plant invasions owing largely to the naturally high disturbance

frequencies within riparian habitats and the rapidity with which an invasive can spread utilising the medium of flowing water. In addition, there has been an historic tendency for people to plant “ornamental” species beside water. As a result, the vast majority of the species listed on the Third Schedule are associated broadly with riparian systems, occurring within the water course, or proliferating along the bank (see Table 1).

**Table 1: List of plant species appearing on the Third Schedule**

<b>Common Name</b>	<b>Latin Name</b>	<b>Associated with freshwater habitats</b>
American skunk-cabbage	<i>Lysichiton americanus</i>	Yes
Red alga	<i>Grateloupia doryphora</i>	No
Brazilian giant-rhubarb	<i>Gunnera manicata</i>	Yes
Broad-leaved rush	<i>Juncus planifolius</i>	Yes
Cape pondweed	<i>Aponogeton distachyos</i>	Yes
Cord-grasses	<i>Spartina (all species hybrids)</i>	No
Curly waterweed	<i>Lagarosiphon major</i>	Yes
Dwarf eel-grass	<i>Zostera japonica</i>	No
Fanwort	<i>Cabomba caroliniana</i>	Yes
Floating pennywort	<i>Hydrocotyle ranunculoides</i>	Yes
Fringed water-lily	<i>Nymphoides peltata</i>	Yes
Giant hogweed	<i>Heracleum mantegazzianum</i>	Yes
Giant knotweed	<i>Fallopia sachalinensis</i>	Yes
Giant-rhubarb	<i>Gunnera tinctoria</i>	Yes
Giant salvinia	<i>Salvinia molesta</i>	Yes
Himalayan balsam	<i>Impatiens glandulifera</i>	Yes
Himalayan knotweed	<i>Persicaria wallichii</i>	Yes
Hottentot-fig	<i>Carpobrotus edulis</i>	No
Japanese knotweed	<i>Fallopia japonica</i>	Yes
Large-flowered waterweed	<i>Egeria densa</i>	Yes
Mile-a-minute weed	<i>Persicaria perfoliata</i>	Yes
New Zealand pigmyweed	<i>Crassula helmsii</i>	Yes
Parrot's feather	<i>Myriophyllum aquaticum</i>	Yes
Rhododendron	<i>Rhododendron ponticum</i>	No
Salmonberry	<i>Rubus spectabilis</i>	Yes
Sea-buckthorn	<i>Hippophae rhamnoides</i>	No
Spanish bluebell	<i>Hyacinthoides hispanica</i>	No
Three-cornered leek	<i>Allium triquetrum</i>	No
Wakame	<i>Undaria pinnatifida</i>	No
Water chestnut	<i>Trapa natans</i>	Yes
Water fern	<i>Azolla filiculoides</i>	Yes
Water lettuce	<i>Pistia stratiotes</i>	Yes
Water-primrose	<i>Ludwigia (all species)</i>	Yes
Waterweeds	<i>Elodea (all except canadensis)</i>	Yes
Wireweed	<i>Sargassum muticum</i>	Marine/transition

Of the species listed in Part (1) of the Third Schedule, three species were of particular concern owing to the location of the survey area and the potential for spread through disturbance:

- Japanese Knotweed (*Fallopia Japonica*);
- Himalayan Balsam (*Impatiens glandulifera*); and
- Giant Hogweed (*Heracleum mantegazzianum*).

The survey for Alien Invasive Species listed in Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011 was undertaken in tandem with the habitats/vegetation survey.

### 2.2.2 GIS

All GIS components of the project were undertaken using ArcGIS 10.8 and standard methodologies.



### 2.2.3 *Bird Surveys*

#### 2.2.3.1 *Winter Bird Surveys 2023*

An assessment of the usage by winter birds of the area of the proposed park (high tide, low tide and post-sunset) were undertaken monthly in:

- January (high tide 20/01, low tide 27/01 and post sunset 27/01);
- February (high tide 23/02, low tide 14/02 and post sunset 24/02); and
- March (high tide 07/03, low tide 01/03 and post sunset 27/03.)

#### 2.2.3.2 *Breeding bird surveys*

Bird Watch Ireland and the RSPB NI have agreed a list of priority bird species for conservation action on the island of Ireland. These Birds of Conservation Concern in Ireland are published in a list known as the BoCCI List. In this BoCCI List, birds are classified into three separate lists (Red, Amber and Green), based on the conservation status of the bird and hence conservation priority. The Red List birds are of high conservation concern, the Amber List birds are of medium conservation concern and the Green List birds are not considered threatened.

An initial breeding bird survey was undertaken by Dr Patrick Moran on the 7<sup>th</sup> of April 2023 under optimal conditions. The site was walked at a slow pace with all birds recorded following a modified common bird census or Brown & Shepherd survey. All birds observed were considered to be breeding in the vicinity of the site. A further breeding bird survey was undertaken on the 15<sup>th</sup> of May by Dr Emma Reeves. The purpose of the breeding bird surveys was to:

- Record any priority species (Annex I, Red or Amber listed) and assess their breeding status within the site;
- Identify any areas of habitat of particular interest with regard to avian biodiversity.

#### 2.2.4 *Non-volant Mammal survey*

A general mammal survey was undertaken at the site on numerous dates (Jan 20<sup>th</sup>, February 24<sup>th</sup> (crepuscular), March 7<sup>th</sup>, April 7<sup>th</sup>) by Dr Patrick Moran. A survey of the study area was undertaken through direct observations (seeing the animal), observation of faeces, prey remains, shelters, hair, etc.

### 2.2.5 *Bat Surveys*

Owing to the unsuitability of the survey area for bats, this was limited to a Bat Roost Potential survey, undertaken on the 7<sup>th</sup> of April 2023 by Dr Patrick Moran

## 3 Results

### 3.1 Desk Study

#### 3.1.1 National Parks and Wildlife Service database

This section of the desk study primarily involved the consultation of the NPWS database, which is publicly accessible. A GIS-based analysis of sites designated for conservation interests (Special Area of Conservation (SAC), Special Protection Area (SPA), Natural Heritage Area (NHA) and Proposed Natural Heritage Area (pNHA)) occurring within 5 km of the survey areas was undertaken.

There are no NHAs occurring within 5 km of the survey area. There are two areas designated as proposed Natural Heritage Areas (pNHA) within 5 km of the proposed application site:

- Boyne Coast and Estuary pNHA; and
- Laytown Dunes/Nanny Estuary pNHA.

A map indicating the location of these sites relative to the Laytown Park is provided in Figure 7.

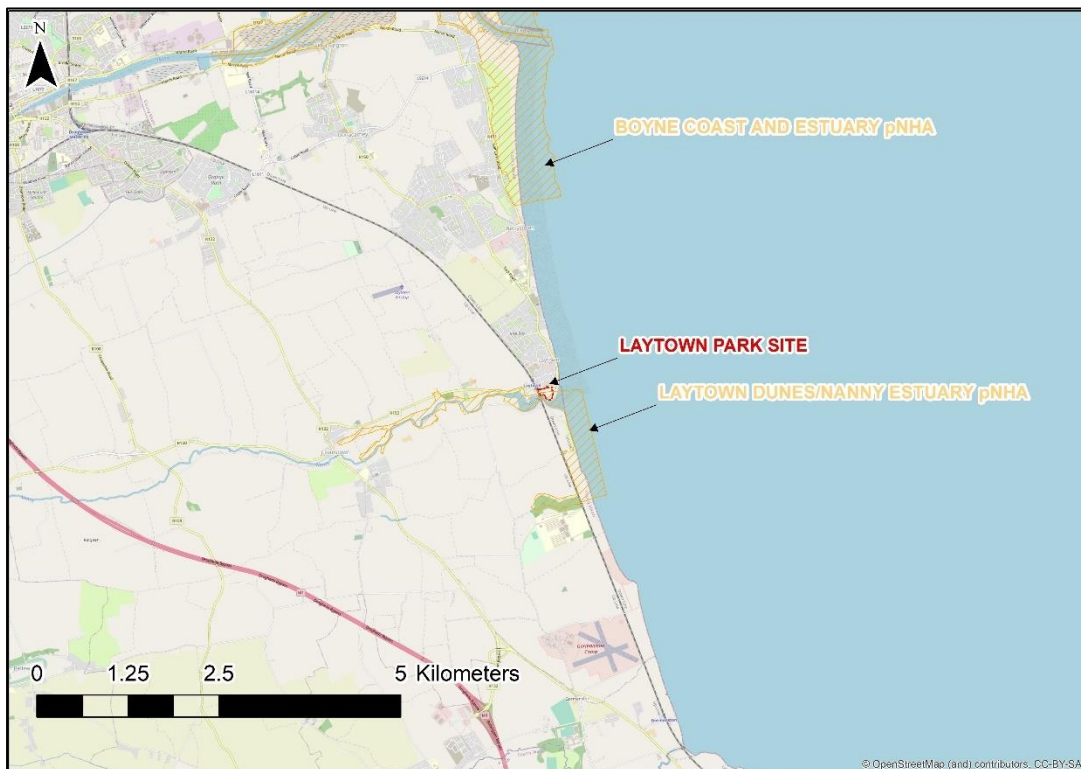


Figure 7: pNHAs within 5 km of Laytown Park

There are four areas designated as a special area of conservation (SAC) and five areas designated as a Special Protection Area within 15 km of the proposed development site (see Table 2, Figure 8 and Figure 9).

**Table 2: Natura 2000 sites within 15km of the proposed development**

SITE CODE	DESIGNATION	SITE NAME
001459	SAC	CLOGHERHEAD
001957	SAC	BOYNE COAST AND ESTUARY
002299	SAC	RIVER BOYNE AND RIVER BLACKWATER
003000	SAC	ROCKABILL TO DALKEY ISLAND
004014	SPA	ROCKABILL
004080	SPA	BOYNE ESTUARY
004122	SPA	SKERRIES ISLANDS
004158	SPA	RIVER NANNY ESTUARY AND SHORE
004232	SPA	RIVER BOYNE AND RIVER BLACKWATER

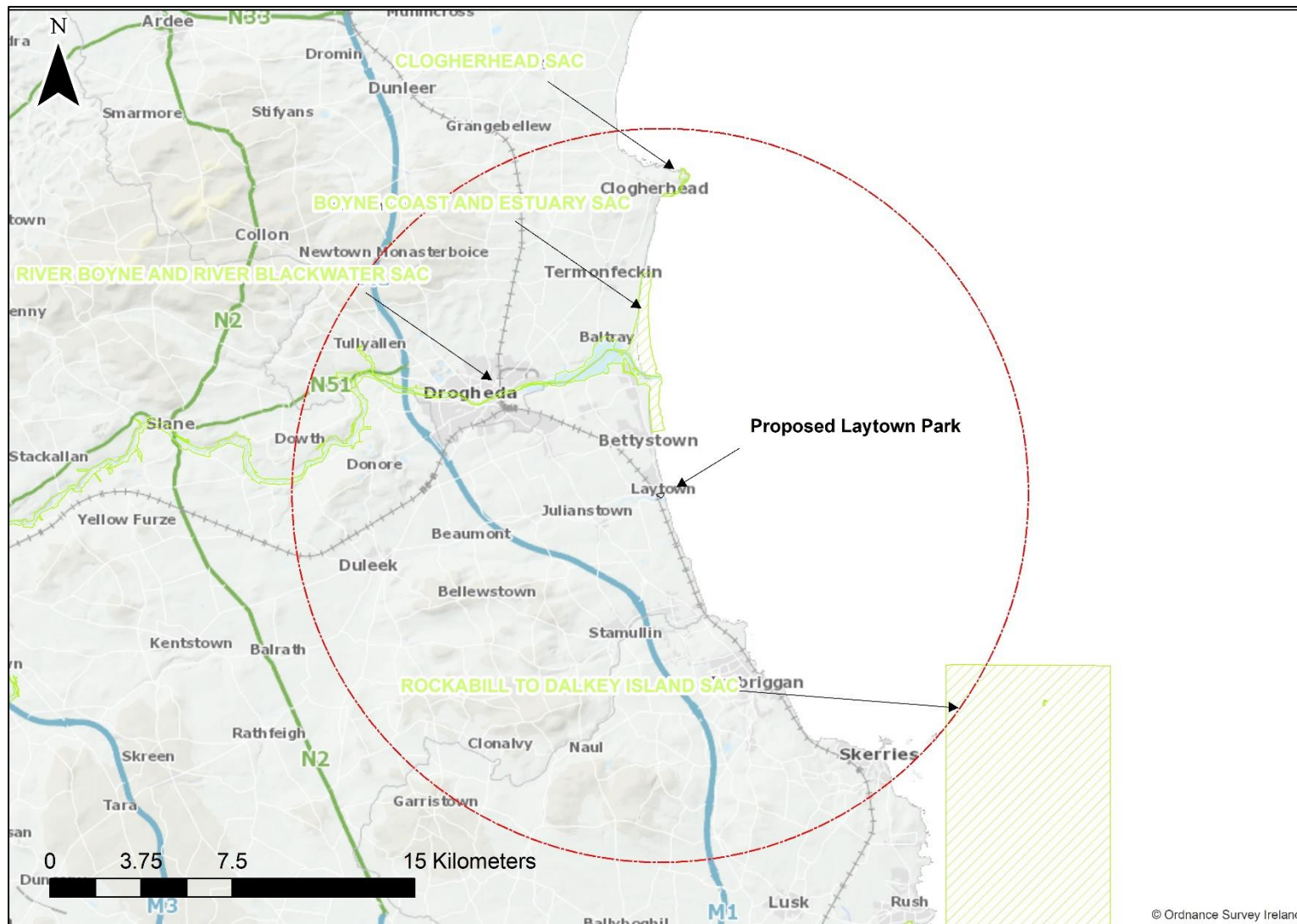


Figure 8: Location of SACs within 15 km of proposed Laytown park

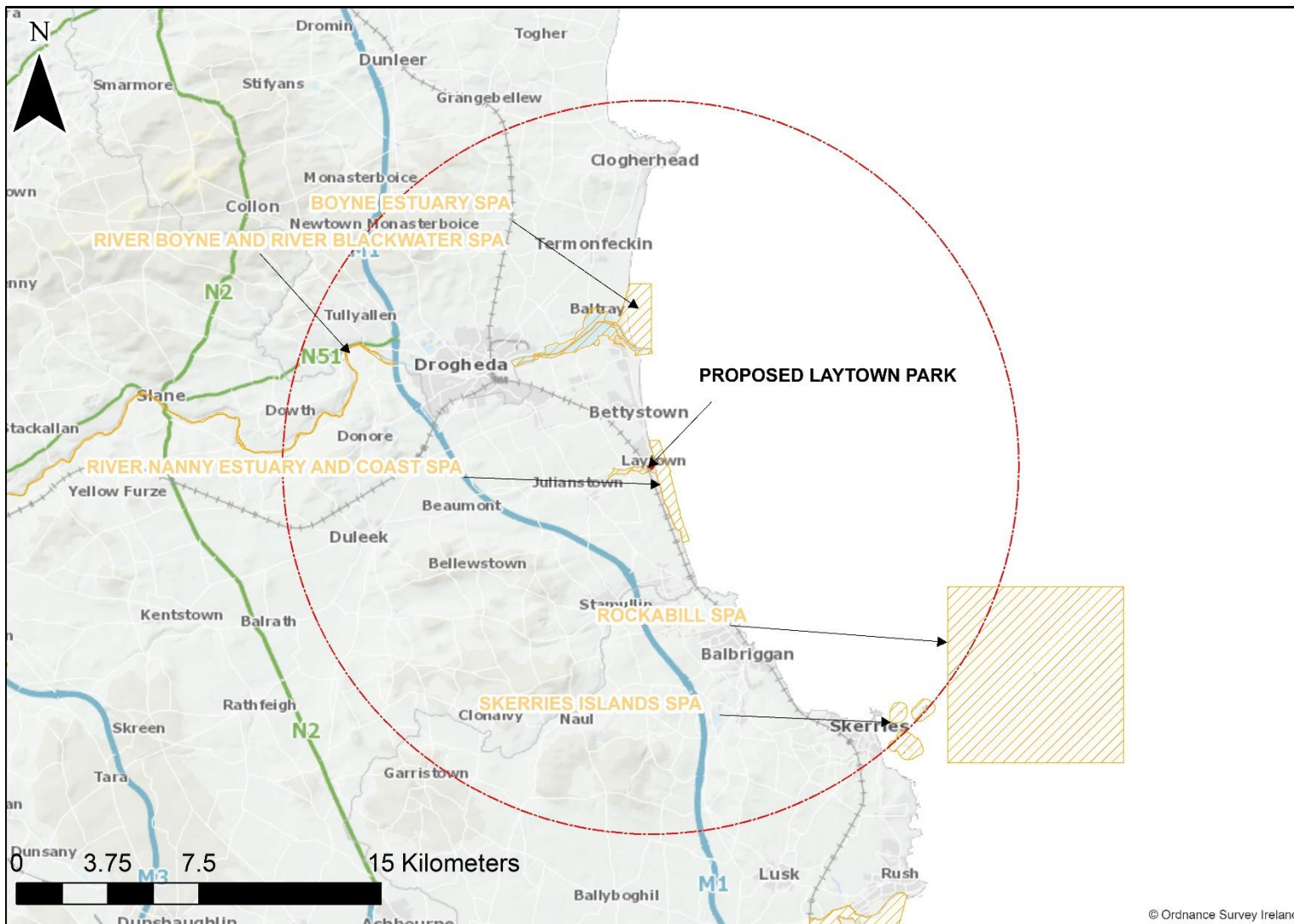


Figure 9: Location of SPAs within 15 km of proposed Laytown park

### 3.1.2 National Biodiversity Data Centre database

The NBDC database was accessed on 25/05/23 to query records occurring within the vicinity of the proposed Laytown park (2 km square, O17Q see Figure 10). The species of conservation concern as recorded within this 2 km square are illustrated in Table 3.

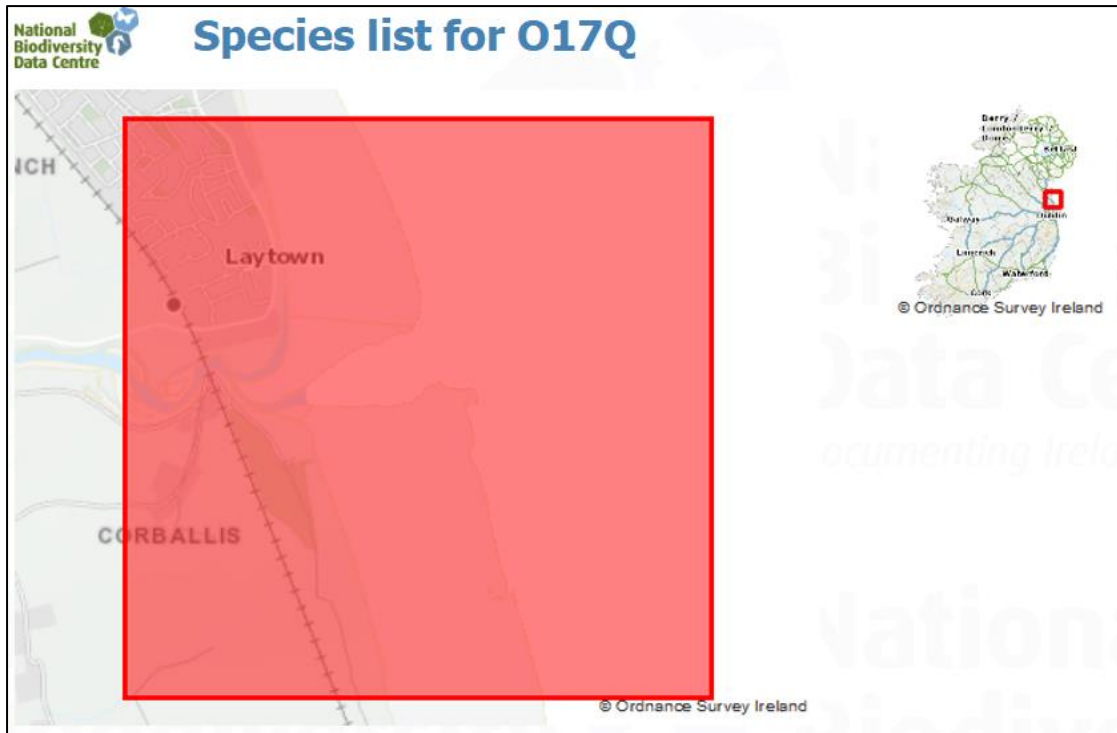


Figure 10: Location of polygon queried (National Biodiversity Data Centre)

Table 3: Species of conservation concern recorded in the vicinity of the proposed development site(\* indicates invasive)

Scientific name	Common Name	Date of last record
<i>Acer pseudoplatanus</i> *	Sycamore	10/07/2014
<i>Anas clypeata</i>	Northern Shoveler	31/12/2001
<i>Anas crecca</i>	Eurasian Teal	31/12/2011
<i>Anas penelope</i>	Eurasian Wigeon	31/12/2011
<i>Anas platyrhynchos</i>	Mallard	31/12/2011
<i>Anas strepera</i>	Gadwall	31/12/2011
<i>Anser anser</i> *	Greylag Goose	31/12/2001
<i>Arthurdendyus triangulatus</i> *	Arthurdendyus triangulatus	23/08/2012
<i>Aythya fuligula</i>	Tufted Duck	31/12/2001
<i>Branta bernicla</i>	Brent Goose	31/12/2011
<i>Buddleja davidii</i> *	Butterfly-bush	10/07/2014
<i>Calidris alpina</i>	Dunlin	26/12/2020

<b>Scientific name</b>	<b>Common Name</b>	<b>Date of last record</b>
<i>Calidris canutus</i>	Red Knot	31/12/2011
<i>Carduelis cannabina</i>	Common Linnet	31/12/2011
<i>Charadrius hiaticula</i>	Ringed Plover	26/12/2020
<i>Columba palumbus</i>	Common Wood Pigeon	31/12/2011
<i>Cygnus cygnus</i>	Whooper Swan	31/12/2001
<i>Cygnus olor</i>	Mute Swan	31/12/2001
<i>Delichon urbicum</i>	House Martin	31/12/2011
<i>Delphinus delphis</i>	Common Dolphin	03/12/2009
<i>Egretta garzetta</i>	Little Egret	31/12/2011
<i>Erinaceus europaeus</i>	West European Hedgehog	04/05/2020
<i>Fulica atra</i>	Common Coot	31/12/2001
<i>Gallinago gallinago</i>	Common Snipe	31/12/2011
<i>Gavia immer</i>	Great Northern Diver	02/01/2018
<i>Gavia stellata</i>	Red-throated Diver	31/12/2001
<i>Haematopus ostralegus</i>	Eurasian Oystercatcher	19/08/2019
<i>Harmonia axyridis*</i>	Harlequin Ladybird	09/11/2021
<i>Hirundo rustica</i>	Barn Swallow	31/12/2011
<i>Larus argentatus</i>	Herring Gull	02/01/2018
<i>Larus canus</i>	Mew Gull	02/01/2018
<i>Larus fuscus</i>	Lesser Black-backed Gull	02/01/2018
<i>Larus marinus</i>	Great Black-backed Gull	31/12/2011
<i>Larus melanocephalus</i>	Mediterranean Gull	31/12/2001
<i>Larus ridibundus</i>	Black-headed Gull	02/01/2018
<i>Limosa lapponica</i>	Bar-tailed Godwit	31/12/2011
<i>Limosa limosa</i>	Black-tailed Godwit	24/01/2018
<i>Lutra lutra</i>	European Otter	15/01/2014
<i>Lymnocyptes minimus</i>	Jack Snipe	31/12/2001
<i>Melanitta fusca</i>	Velvet Scoter	02/01/2018
<i>Melanitta nigra</i>	Common Scoter	02/01/2018
<i>Mergus serrator</i>	Red-breasted Merganser	31/12/2011
<i>Morus bassanus</i>	Northern Gannet	19/08/2019
<i>Numenius arquata</i>	Eurasian Curlew	15/08/2018
<i>Orobanche minor*</i>	Common Broomrape	10/07/2014
<i>Oxyura jamaicensis*</i>	Ruddy Duck	31/12/2001
<i>Passer domesticus</i>	House Sparrow	31/12/2011
<i>Phalacrocorax carbo</i>	Great Cormorant	02/01/2018
<i>Phasianus colchicus</i>	Common Pheasant	31/12/2011
<i>Philomachus pugnax</i>	Ruff	31/12/2001
<i>Phocoena phocoena</i>	Common Porpoise	13/08/2019
<i>Pluvialis apricaria</i>	European Golden Plover	02/01/2018
<i>Pluvialis squatarola</i>	Grey Plover	02/01/2018
<i>Podiceps cristatus</i>	Great Crested Grebe	02/01/2018
<i>Rana temporaria</i>	Common Frog	02/02/2020
<i>Rattus norvegicus*</i>	Brown Rat	15/10/2013
<i>Rissa tridactyla</i>	Black-legged Kittiwake	31/12/2001
<i>Sciurus carolinensis*</i>	Eastern Grey Squirrel	04/12/2012
<i>Somateria mollissima</i>	Common Eider	02/01/2018



<i>Scientific name</i>	<b>Common Name</b>	<b>Date of last record</b>
<i>Sterna hirundo</i>	Common Tern	31/12/2001
<i>Sterna paradisaea</i>	Arctic Tern	31/12/2001
<i>Sterna sandvicensis</i>	Sandwich Tern	31/12/2001
<i>Sturnus vulgaris</i>	Common Starling	31/12/2011
<i>Tachybaptus ruficollis</i>	Little Grebe	02/01/2018
<i>Tadorna tadorna</i>	Common Shelduck	31/12/2011
<i>Tringa nebularia</i>	Common Greenshank	31/12/2011
<i>Tringa totanus</i>	Common Redshank	02/01/2018
<i>Vanellus vanellus</i>	Northern Lapwing	31/12/2011

As would be expected given the ecological importance of the vicinity, there are a wide range of species of conservation concern present.

### 3.2 I-WeBS data

The data regarding long-term trends of species including QIs at the River Nanny Shore and Estuary<sup>1</sup> and Boyne Estuary<sup>2</sup> (species regularly move between the two) have recently been released by Bird Watch Ireland. These figures indicate that the majority of QIs are exhibiting long-term declines in population (presented in Table 4 and Table 5).

The overriding objective of the Habitats Directive is to ensure that the habitats and species covered achieve ‘favourable conservation status’ and that their long-term survival is secured across their entire natural range within the EU. In its broadest sense, favourable conservation status means that an ecological feature is being maintained in a satisfactory condition, and that this status is likely to continue into the future. The majority of QIs at these Natura 2000 sites currently have long term unfavourable (declined) conservation status.

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1 [https://birdwatchireland.ie/app/uploads/2022/04/iwebs\\_trends\\_0V401\\_Nanny\\_Estuary\\_shore.html](https://birdwatchireland.ie/app/uploads/2022/04/iwebs_trends_0V401_Nanny_Estuary_shore.html)

2 [https://birdwatchireland.ie/app/uploads/2022/04/iwebs\\_trends\\_0Z402\\_Boyne\\_Estuary.html](https://birdwatchireland.ie/app/uploads/2022/04/iwebs_trends_0Z402_Boyne_Estuary.html)

Table 4: % change since baseline (Natura 2000 data form) in numbers of QIs recorded at the Nanny Estuary and Shore

Code	Common Name	Scientific Name	LONG TERM TREND
A130	Oystercatcher	<i>Haematopus ostralegus</i>	INTERMEDIATE DECLINE
A137	Ringed Plover	<i>Charadrius hiaticula</i>	LARGE DECLINE
A140	Golden Plover	<i>Pluvialis apricaria</i>	LARGE DECLINE
A143	Knot	<i>Calidris canutus</i>	STABLE/INCREASING
A144	Sanderling	<i>Calidris alba</i>	STABLE/INCREASING
A184	Herring Gull	<i>Larus argentatus</i>	N/A
A999	Wetlands	N/A	N/A

Table 5: % change since baseline (Natura 2000 data form) in numbers of QIs recorded at the Boyne Estuary

Code	Common Name	Scientific Name	LONG TERM TREND
A048	Shelduck	<i>Tadorna tadorna</i>	MODERATE DECLINE
A130	Oystercatcher	<i>Haematopus ostralegus</i>	STABLE/INCREASING
A140	Golden Plover	<i>Pluvialis apricaria</i>	LARGE DECLINE
A141	Grey Plover	<i>Pluvialis squatarola</i>	LARGE DECLINE
A142	Lapwing	<i>Vanellus vanellus</i>	MODERATE DECLINE
A143	Knot	<i>Calidris canutus</i>	STABLE/INCREASING
A144	Sanderling	<i>Calidris alba</i>	MODERATE DECLINE
A156	Black-tailed Godwit	<i>Limosa limosa</i>	STABLE/INCREASING
A162	Redshank	<i>Tringa totanus</i>	STABLE/INCREASING
A169	Turnstone	<i>Arenaria interpres</i>	MODERATE DECLINE
A195	Little Tern	<i>Sterna albifrons</i>	N/A
A999	Wetlands	N/A	N/A

In the Conservation Objectives supporting document for the River Nanny Estuary and Shore SPA an assessment of the disturbance activities recorded included:

- Walking (incl. dogs);
- Powered watercraft;
- Shooting;
- Motorised vehicles; and
- Horse-riding.

Disturbance is almost certainly the single biggest threat to the continues ecological integrity of these Natura 2000 sites.

**3.2.1 Other relevant data sources**

The “Map of Irish Wetlands” database was queried on the 14<sup>th</sup> of May 2023. The River Nanny Estuary occur immediately adjacent/within the proposed park area and “Bettystown North”, an extensive area of freshwater marsh and reed-swamp occurs in the vicinity of the survey area (see Figure 11).

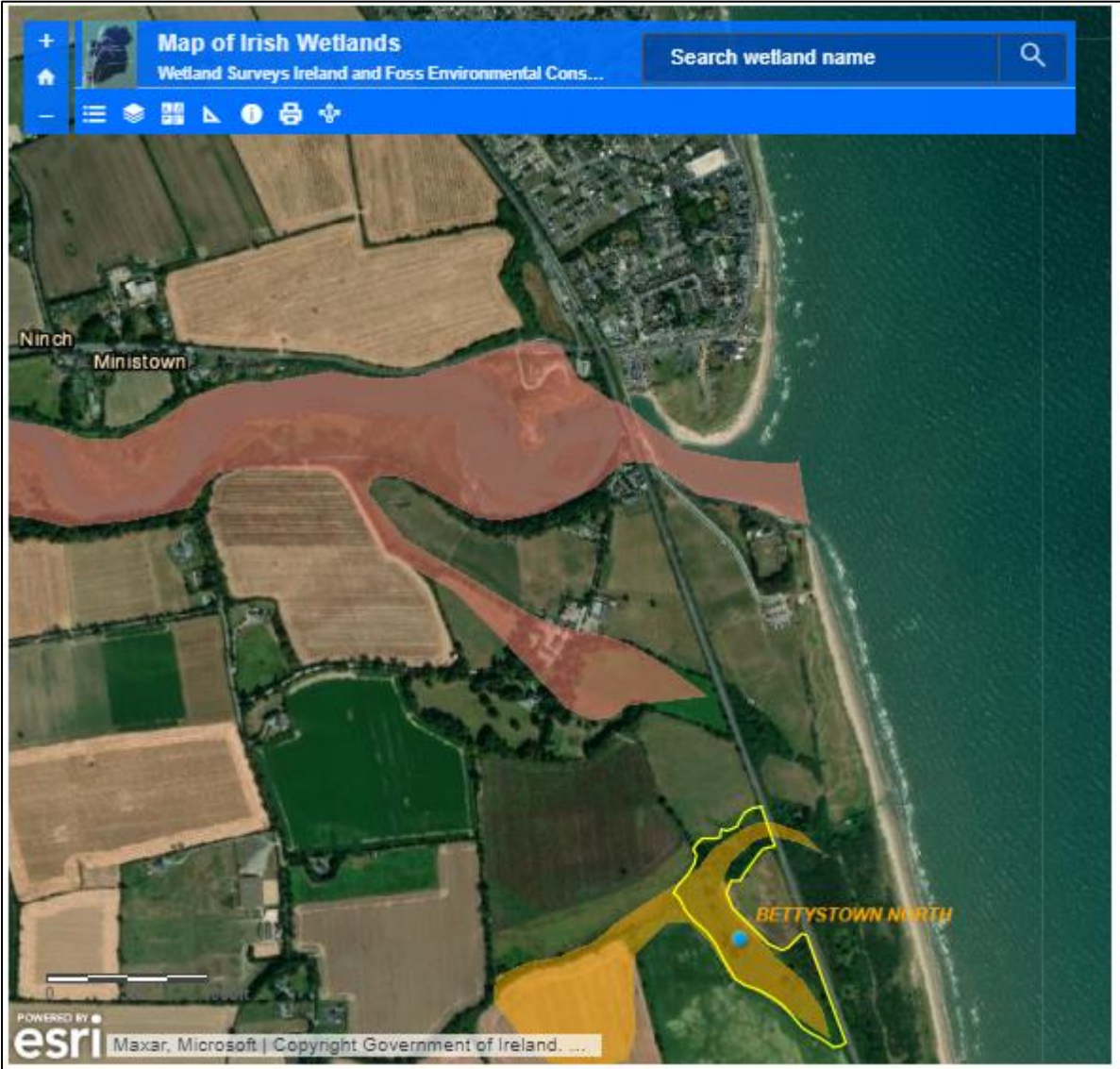
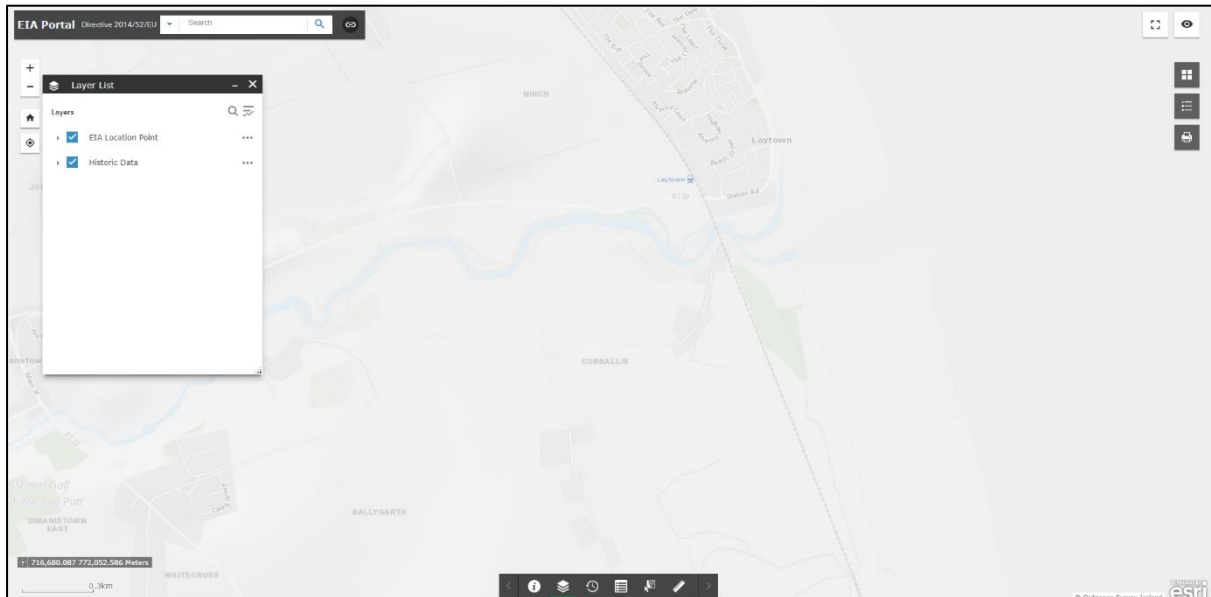


Figure 11: Excerpt from Map of Irish Wetlands web resource

### 3.2.2 EIA Portal

The EIA Portal<sup>3</sup> online resource was queried on the 15<sup>th</sup> of May 2023. There are no proposed developments in the immediate vicinity of the proposed development requiring EIA apparent on the EIA Portal.



**Figure 12: Excerpt from EIA Portal illustrating EIA location points in the immediate vicinity of the proposed development**

### 3.2.3 National Planning Application Database

A review of the National Planning Application Database indicates that there are no recent planning permissions associated with the application site (please see Figure 13). Please note that boundaries illustrated herein are indicative. While the full scheme of upgrades was assessed within this document, only those parts which are proposed on lands in Meath Co. Council ownership are proposed in the current application.

<sup>3</sup> <https://housinggovie.maps.arcgis.com/apps/webappviewer/>

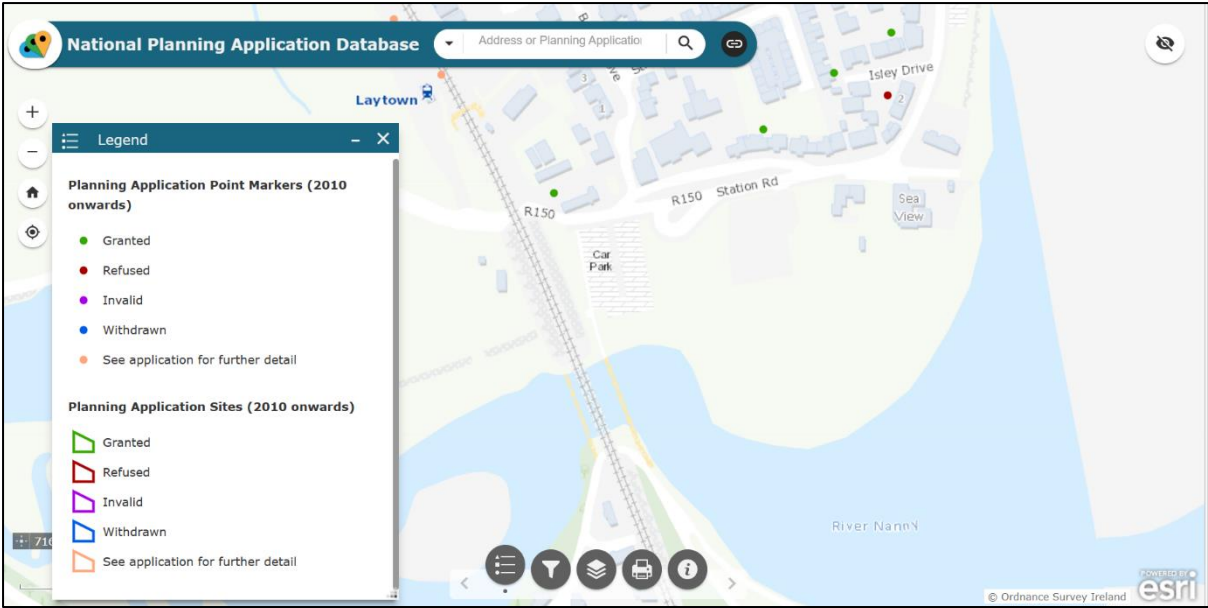


Figure 13: Screenshot from NPAD

### 3.3 Field Surveys

#### 3.3.1 Botanical/Habitat survey

Surveys of vegetation occurring within the survey area were undertaken by Dr Emma Reeves on the 7<sup>th</sup> of April and again on the 15<sup>th</sup> of May. The site primarily consists of Built land/Artificial surfaces, grassland habitat and dune habitat. Over 80 different plant species were identified within the survey area (see Appendix 1). A Habitat Map is presented in Appendix 2. A description of individual habitat types is given below.

##### 3.3.1.1 BL Built Land; Car Park and Playground (BL3) Earth Banks BL2”

The carpark and Playground areas are comprised almost largely of tarmacadam and a rubber composite material in the playground. Boundaries are formed with wooden and metal fencing. There is little natural habitat present. Small areas of amenity grassland (GA2) occur within the bounds of the playground. Earth mounds are a dominant landscape feature around the car park and have become a makeshift raised pedestrian pathway to the dune habitat and beach. Often these raised areas lack vegetation due to frequent use but species typical of waste places near the coast are abundant at their margins such as *Raphanus raphanistrum* subsp *maritimus* (sea radish), *Betula vulgaris* (sea beet), *Sonchus oleraceus* (smooth sow thistle), *Smyrniolum olusatrum* (Alexanders), *Cirsium arvense* (creeping thistle) and *Urtica dioica* (nettle).



Figure 14: Main carpark

### 3.3.1.2 GS Grassland, Improved semi natural grassland (GSi2).

Immediately adjacent to the playground is a field of semi-natural grassland which conforms to the Fossitt classification of dry meadow and grassy verge GS2. However, this habitat type exhibits diverse management which has led to variation in habitat quality. Much of the grassland appears to be mown at least once a year it is dominated by grasses such as *Alopecurus pratensis*, *Dactylis glomerata*, *Anthoxanthum odoratum*, *Agrostis stolonifera* and *Poa trivialis*. Herb cover is quite low and but includes *Potentilla reptans*, *Bellis perennis*, *Cerastium fontanum* and *Cardamine pratensis*. Small parts of the grassland appear to have developed over compacted areas and have a high proportion of herbs to grasses. Many of the grasses in this GS2 grassland type are fine leaved and include *Festuca rubra*, *Cynosurus cristatus* and *Anthoxanthum odoratum*. Herbaceous species include *Medicago lupulina*, *Lotus corniculatus* and *Achillea millefolium*. The sward is very low <10cm and is dominated by mosses such as *Brachythecium rutabulum* and *Bryum* sp. The sections of grassland which bound the degraded dune system on site, do not show any previous management, they are very rank and floristically show indications of high nitrogen levels with large swathes of *Urtica dioica*, *Galium aparine*, *Smyrniurn oluastrum* and *Cirsium arvense*. Grassland habitat grades into dune habitat.



Figure 15: Grassland with desire line

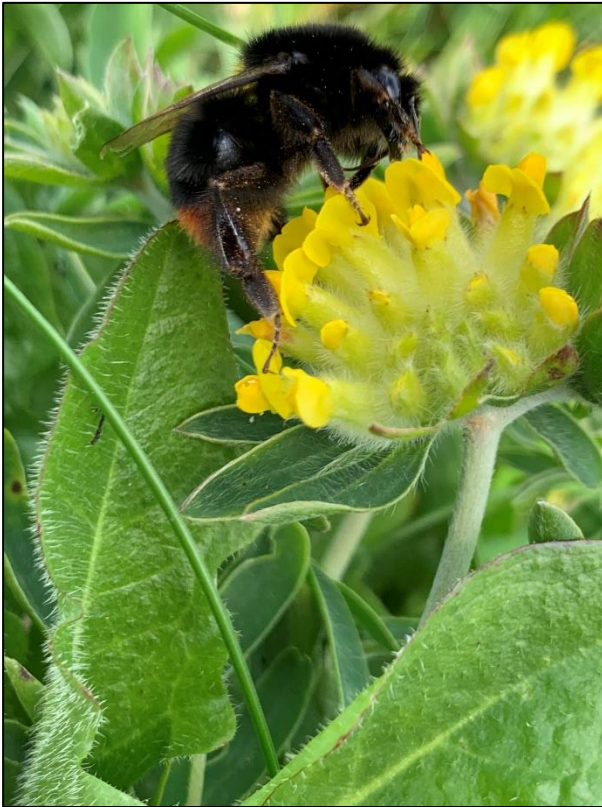
### 3.3.1.3 CD2 Marram dunes

On the seaward side of the site, grassland grades into Marram dunes (badly degraded, however) as described by Fossitt CD2. These have been very badly degraded, largely through the action of walkers, with desire lines disrupting the dune and impacting on the structural integrity of the habitat. These dunes are partially stabilised hills of sand which are dominated by swards of *Ammophila arenaria* (marram grass). The white sands of the marram dunes have been eroded to form a steep hill with several paths running through the marram. Holes dug by dogs have caused collapse in the dunes in some areas. Constant foot traffic through the dune has resulted to a minor dune forming below the main marram dune in a seaward direction. This habitat exhibits a diverse sward of native species. Herbs such as *Anthyllis vulneraria*, *Vicia sativa* and *Daucus carota* are common - fine leaved grasses dominate with Marram and *Elymus repens*. Flax, a species not normally associated with this coastal habitat was abundant. It is likely that this plant has been introduced to the habitat in seed mixes designed for feeding birds.



Figure 16: Dune habitat





**Figure 17: Red-tailed Bumblebee on Kidney Vetch**

**3.3.2 Species listed on the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011**

No species listed on Part (1) of the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations of 2011 (as amended) were recorded.

**3.3.3 Bird Surveys**

**3.3.3.1 Winter bird assessment January – March 2023**

During the winter bird surveys undertaken, Qualifying Interests of adjacent SPAs were observed utilising the habitats present with the proposed park area and immediately adjacent on numerous occasions. There is potential for disturbance of these species if construction works were undertaken during the overwintering period (generally October – March inclusive). The habitat occurring will not significantly be altered by the proposed park and there will be no significant negative impacts on these species.

**Table 6: Results of wintering bird surveys**

DATE	SURVEY	SURVEYOR	WEATHER CONDITIONS	QUALIFYING INTERESTS FORAGING/ ROOSTING	OBSERVATIONS OF NOTE	GENERAL NOTES
20/01/23	HIGH TIDE	PM	START 09:00, -5C, CLEAR SUNNY COLD HARD FROST	YES	36 OYSTERCATCHER ROOSTING ON MOUND IN PLAYGROUND – MOVE TO AREA BEHIND ROOST	
27/01/23	LOW TIDE	ER	START 08:15, 3C, CLOUDY	YES	12 OYSTERCATCHER IN AND AROUND PLAYGROUND	
27/01/23	POST SUNSET	PM	4C, PART CLOUD, CALM	NO		LOTS OF WALKERS AND DOG WALKERS ON BEACH. DOGS OFF LEAD
23/02/23	HIGH TIDE	ER	START 13:10	NO	CORMORANT AND BRENT FLYING OVER	
24/02/23	POST SUNSET	PM	START 20:00, 7C CLEAR, MODERATE BREEZE	NO	NO	VERY LITTLE ACTIVITY
14/02/23	LOW TIDE	PM	START 10:25, 10C, MODERATE BREEZE, INTERMITTENT RAIN	YES	FLOCK OF APP 25 STARLING IN PG. PUT UP BY PEOPLE 3 OYSTERCATCHER FORAGING IN GRASS TO REAR OF PG. WITHIN FENCE, MOVE AWAY BUT DO NOT TAKE FLIGHT WHEN PEOPLE GET CLOSE – DON'T LEAVE CONFINES OF PG. EVENTUALLY MORE PEOPLE ARRIVE AND 3 BIRDS MOVE TO GRASS BEHIND PG. DOG IN PG. DESPITE SIGN	12 BRENT IN ESTUARY FEEDING, LOTS OF WALKERS AND DOGS ON BEACH. DOGS OFF LEAD

DATE	SURVEY	SURVEYOR	WEATHER CONDITIONS	QUALIFYING INTERESTS FORAGING/ ROOSTING	OBSERVATIONS OF NOTE	GENERAL NOTES
01/03/23	LOW TIDE	ER	START 12:30, 10C, PART CLOUDY, LIGHT BREEZE	NO	30 BRENT IN ESTARY NEAR BRIDGE	LOTS OF WALKER AND DOG WALKERS – DOGS OFF LEAD
07/03/23	HIGH TIDE	PM	START 11:00, 4C SUNNY NO WIND	NO	MEADOW PIPIT PAIR BEHIND PG., FLOCK OF STARLING, VERY LITTLE BIRD ACTIVITY	FLOCK OF 15 OYSTERCATCHER FLY ALONG COAST. LOTS OF PEOPLE AND DOG WALKERS – DOGS OFF LEAD
27/03/23	POST SUNSET	pm	Start 20:00, 8C Light breeze, high cloud	NO	NO	VERY LITTLE ACTIVITY



Figure 18: Oystercatcher foraging adjacent to bus-stop



Figure 19: Oystercatcher foraging/roosting immediately adjacent to existing playground



Figure 20: Light-bellied Brent Geese are known to feed at the mouth/estuary of the River Nanny in the winter season



Figure 21: Black-tailed Godwit foraging adjacent to playground area during the winter months



Figure 22: Flocks of Sanderling are a common sight at the waters' edge in winter

### 3.3.3.2 Breeding Bird Surveys

An initial breeding bird survey was undertaken by Dr Patrick Moran on the 7<sup>th</sup> of April 2023 under optimal conditions. The site was walked at a slow pace with all birds recorded following a modified common bird census or Brown & Shepherd survey. All birds observed were considered to be breeding in the vicinity of the site (unless otherwise indicated – for example, a Herring Gull flying over is not likely to be breeding within the confines of the survey area). A further breeding bird survey was undertaken on the 15<sup>th</sup> of May by Dr Emma Reeves. During the breeding bird surveys, only 13 species were observed utilising the habitats present, and of these, only three were observed to be breeding within the survey area. This is owing to the nature of the habitats present and the degree of disturbance. Three ground or near-ground nesting species, Meadow Pipit, Skylark and Stonechat were the only species observed exhibiting territorial behaviour indicating that they were breeding within the rank grassland and dune area. The bird observed utilising the area and their status on the Birds of Conservation Concern in Ireland (BoCCI) list (2020 – 2026) is indicated in Table 7. Of note, the proposed changes to the Laytown Park will not negatively impact on these species. If the use of desire lines is discouraged and stopped, it will have a positive impact on the habitat and species utilising the habitat.

Table 7: Birds observed utilising habitat breeding birds marked with \*

Common Name	Scientific Name
Skylark*	<i>Alauda arvensis</i>
Meadow Pipit*	<i>Anthus pratensis</i>
Goldfinch	<i>Carduelis carduelis</i>
Hooded Crow	<i>Corvus corax</i>
Rook	<i>Corvus frugilegus</i>
Jackdaw	<i>Corvus monedula</i>
Swallow	<i>Hirundo rustica</i>
Herring Gull	<i>Larus argentatus</i>
Lesser Black-backed Gull	<i>Larus fuscus</i>
Black-headed Gull	<i>Larus ridibundus</i>
House Sparrow	<i>Passer domesticus</i>
Stonechat*	<i>Saxicola rubicola</i>
Starling	<i>Sturnus vulgaris</i>

## 3.4 Mammal Surveys

### 3.4.1 *Non volant Mammal surveys (including badger)*

There was limited indication of any regular use of the survey area by non-volant mammals. There was present Rabbit droppings, although activity is limited by dogs. The survey area is a heavily utilised amenity with a large number of dog walkers present. Smaller mammals such as Pygmy Shrew, Brown Rat and Hedgehog may occur occasionally. Fox almost certainly pass through the area, but the proposed upgrading of the park will have no impact on the use by these species.

### 3.4.2 *Bat Roost Potential Survey*

There were no suitable roosting habitats occurring within the survey area. Although it is likely that some of the commoner species, such as Common Pipistrelle, Soprano Pipistrelle and Leisler's Bat may forage in the vicinity from time to time, the proposed park improvements have no potential to impact on these species.

## 4 Summary of findings

### 4.1 Elements or particular areas of specific potential for biodiversity or conservation interest;

The primary element of interest regards the location of the site, which is of International ecological value. The habitats represent an ecological “Stepping stone” of habitat in particular for avifauna and overwintering waders were observed utilising the habitats. The grassland habitat is suitable for ground or near-ground nesting species, if managed appropriately. There is a relatively high diversity of plant species, and this can be maintained and enhanced through appropriate management. Management of semi-natural habitats should be the preferred option as opposed to active planting and landscaping.

### 4.2 Elements with the potential to damage the ecological integrity of the study area

The primary threat to the ecological integrity of the study area is over-use by humans (and in particular dog-walkers). One of the aims of the park improvements is the implementation of a raised boardwalk and discouraging the public from using desire lines within dunes that have developed. Planting with inappropriate species also has the potential to impact on the ecological integrity of the study area. It is proposed that any areas to be maintained as grassland are managed as semi-natural grasslands – this will be more efficient and will be considerably more beneficial from a biodiversity point of view than a planted landscape.

### 4.3 Presence of ecological corridors/stepping stones within the study area

The survey area forms an ecological stepping-stone, which is particularly important for wintering avifauna, providing roosting and foraging habitat for species, including those comprising Qualifying Interests of the adjacent and near-by SPAs. The majority of habitat will be retained, and the effectiveness of the ecological stepping-stone will be retained.



#### 4.4 Conservation priorities regarding the identified biodiversity resource of the site

The primary conservation priorities regarding the identified biodiversity resource identified should concentrate on:

- Avoiding any potential disturbance of Qualifying Interest (bird) species of adjacent SPAs during the period October – March inclusive;
- Maintaining the dune system, which has been extensively damaged through the build-up of desire lines. Of note, the dune system protects the coast during winter storms and these habitats will become increasingly important as sea level rises as a consequence of climate change;
- Maintaining habitat where possible and managing as semi-natural habitat as opposed to planting; and
- Ensuring that no breeding birds are impacted upon during construction/preparation process.

#### 4.5 Potential impacts and mitigation measures

##### 4.5.1 Potential Impacts

The primary impacts during the construction phase will be:

- Potential disturbance of Qualifying Interests of adjacent SPAs associated with demolition and/or construction;
- Potential impacts on water quality;
- Potential impacts associated with the spread within/introduction to site of propagules of Alien Invasive Plant Species; and
- Potential for habitat loss for breeding birds.

The primary impact during operation will be:

- There are unlikely to be any significant medium or long-term impacts associated with the park upgrades. The area is heavily utilised as an amenity and is immediately adjacent to busy road. The nature of the habitats present will not be appreciably changed, although conditions are likely to improve if, for example, desire lines are discouraged. Species utilising the survey area are habituated to human disturbance and given the location of the site, this is unlikely to change.

## 4.5.2 Mitigation Measures

### 4.5.2.1 Mitigation against potential disturbance

Given the ecological sensitivity of the site and the use of habitats by Qualifying Interests of the adjacent SPA, works should be limited to the period April – September inclusive, avoiding the peak season for overwintering birds (but ensuring not to disturb breeding bird habitat (long grass semi natural grassland areas)).

### 4.5.2.2 Mitigation against impacts on water quality

The proposed development is proximate to the Irish Sea, a feature of International ecological significance. There is always potential for contamination/pollution events to occur whenever construction is undertaken in the vicinity of water bodies through accidents, spills, etc. During all construction works, protection of water quality is paramount. Any contractor shall undertake all proposed works in such a manner as to avoid degradation of water quality by pollution and this should be ensured by drawing up and implementing an appropriate Construction Management Plan.

Generic measures to be taken should include the following:

- The Undertaker's method statement should make specific reference to measures for the protection of water quality;
- Undertaker's plant, equipment etc. shall be free of any mechanical defects, and be well maintained so as to prevent soil or fuel leaks;
- Undertaker's plant, equipment etc. must arrive at the site free from propagules of any Alien Invasive Plant Species;
- The Undertaker's method statement should make specific reference to measures for the protection of water quality, to include measures to ensure no spillage of fuel or cement/lime-based material or any other leakages occur to any drains, etc. for the duration of the works;
- All works will be undertaken in accordance with the following best practice guidelines:
  - CIRIA Control of Water Pollution from Construction sites – Guidance for Consultants and Contactors (2001).
  - Eastern Regional Fisheries Board Guidance Notes 'Requirements for the Protection of Fisheries Habitat during Construction and Development Works at River Sites' (Eastern Regional Fisheries Board, 2006);
  - NRA Guidelines (2006) NRA Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes.

4.5.2.2.1 Mitigation against habitat loss for breeding birds

The grassland/dune system should be left intact, and when the proposed park works have been undertaken, a Biodiversity and Habitat Management Plan for the survey area should be drawn up and implemented, with management undertaken by Meath Co. Council in accordance with this plan. All works must be undertaken in accordance with the Wildlife Act 1976 (as amended).

## **5 Conclusions**

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It is the professional opinion of the author of this report that although located in a very sensitive ecological location, the nature of the proposed park upgrades will have no significant negative ecological impacts, assuming mitigation measures are implemented, and the proposed works are undertaken in accordance with the Wildlife Act (1976) as Amended. Indeed, the proposed layout will almost certainly enhance the habitats present as regards biodiversity.

## 6 Appendix I – list of plant species observed

<i>Scientific Name</i>	<i>Common Name</i>
<i>Acer pseudoplatanus</i>	Sycamore
<i>Achillea millefolium</i>	Yarrow
<i>Atriplex patula</i>	Common Orache
<i>Alopecurus pratensis</i>	Meadow Foxtail
<i>Ammophila arenaria</i>	Marram Grass
<i>Anthoxanthum odoratum</i>	Sweet Vernal Grass
<i>Anthriscus sylvestris</i>	Cow Parsley
<i>Anthyllis vulneraria</i>	Kidney vetch
<i>Arabidopsis thaliana</i>	Thale Cress
<i>Agrostis stolonifera</i>	Creeping Bent
<i>Arrhenatherum elatius</i>	False Oat-grass
<i>Bellis perennis</i>	Daisy
<i>Beta vulgaris ssp. maritima</i>	Sea Beet
<i>Betula pubescens</i>	Downy Birch
<i>Brassica rapa</i>	Rapeseed
<i>Carex arenaria</i>	Sand sedge
<i>Calendula officinalis</i>	Calendula
<i>Calliergonella cuspidatum</i>	Pointed Spear-moss
<i>Capsella bursa pastoris</i>	Shepherd's purse
<i>Cardamine flexuosa</i>	Wavy Bitter Cress
<i>Cardamine pratense</i>	Lady's Smock
<i>Cerastium fontanum</i>	Common Mouse-ear
<i>Chamaenerion angustifolium</i>	Rosebay Willowherb
<i>Cirsium repens</i>	Creeping Thistle
<i>Cirsium vulgare</i>	Spear Thistle
<i>Cortaderia selloana</i>	Pampas grass
<i>Crataegus monogyna</i>	Hawthorn
<i>Crepis capillaris</i>	Smooth Hawksbeard
<i>Cynosurus cristatus</i>	Crested dogs-tail
<i>Dactylis glomerata</i>	Cock's Foot
<i>Daucus carota</i>	Carrot
<i>Epilobium ciliatum</i>	Canadian Willowherb
<i>Elytrigia juncea</i>	Sand Couch Grass
<i>Epilobium parviflorum</i>	Hoary Willowherb
<i>Festuca arundinacea</i>	Tall Fescue
<i>Festuca rubra</i>	Red Fescue
<i>Fumaria muralis</i>	Fumitory
<i>Galium aparine</i>	Cleavers
<i>Gallium aparine</i>	Cleavers
<i>Geranium dissectum</i>	Cut-leaved Cranesbill
<i>Geranium molle</i>	Soft-leaved Cranesbill
<i>Geranium robertianum</i>	Herb Robert
<i>Geum urbanum</i>	Herb Bennet

<b>Scientific Name</b>	<b>Common Name</b>
<i>Glyceria fluitans</i>	Floating Sweet Grass
<i>Hedera angustifolia</i>	Ivy
<i>Helictotrichon pubescens</i>	Downey Oat Grass
<i>Heracleum sphondylium</i>	Lesser Hogweed
<i>Holcus lanatus</i>	Yorkshire Fog
<i>Hypochaeris radicata</i>	Cats-ear
<i>Lapsana communis</i>	Nipplewort
<i>Linum usitatissimum</i>	Flax
<i>Lolium perenne</i>	Perennial Ryegrass
<i>Lotus corniculatus</i>	Bird's Foot Trefoil
<i>Malva sylvestris</i>	Common Mallow
<i>Medicago lupulina</i>	Black Medic
<i>Narcissus sp</i>	Daffodils
<i>Plantago major</i>	Broadleaved Plantain
<i>Plantago lanceolata</i>	Ribwort Plantain
<i>Plantago maritima</i>	Sea Plantain
<i>Poa annua</i>	Annual Meadow Grass
<i>Poa pratensis</i>	Smooth Meadow
<i>Poa trivialis</i>	Rough Meadow Grass
<i>Polyanthus sp</i>	Polyanthus variety
<i>Populus robusta</i>	Hybrid Poplar
<i>Potentilla reptans</i>	Creeping Tormentil
<i>Prunella vulgaris</i>	Selfheal
<i>Prunus sp.</i>	Cherry Cultivar
<i>Ranunculus acris</i>	Meadow Buttercup
<i>Ranunculus bulbosus</i>	Bulbous Buttercup
<i>Ranunculus repens</i>	Creeping Buttercup
<i>Raphanus raphanistrum subsp. maritimus</i>	Sea radish
<i>Rhytidiadelphus squarrosus</i>	Springy turf moss
<i>Rosa canina</i>	Dog Rose
<i>Rubus fruticosus agg</i>	Bramble
<i>Rumex crispus</i>	Curled dock
<i>Rumex obtusifolius</i>	Obtuse Dock
<i>Sambucus nigra</i>	Elderberry
<i>Senecio jacobaea</i>	Ragwort
<i>Senecio vulgaris</i>	Groundsel
<i>Smyrniolum oluastrum</i>	Alexanders
<i>Sorbus acuparia</i>	Rowan
<i>Sonchus oleraceus</i>	Smooth Sow thistle
<i>Syringa vulgaris</i>	Common Lilac
<i>Stellaria media</i>	Chickweed
<i>Taraxacum officinale agg</i>	Dandelion
<i>Trifolium pratense</i>	Red Clover
<i>Trifolium repens</i>	White Clover
<i>Tripleurospermum maritimum</i>	Sea Mayweed
<i>Triticum aestivum</i>	Wheat
<i>Tulipa sp</i>	Tulip

<b>Scientific Name</b>	<b>Common Name</b>
<i>Urtica dioica</i>	Nettle
<i>Veronica chamaedrys</i>	Germander Speedwell
<i>Veronica serpyllifolia</i>	Thyme-leaved
<i>Vicia sativa</i>	Common Vetch
<i>Vicia sepium</i>	

# 7 Appendix 2 – Habitat Map





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- [www.europa.eu](http://www.europa.eu) – official website of the European Union, source of information on EU Directives.