

Proposed Naul Park, County Fingal:

Preliminary Ecological Assessment



Prepared by
Dr Mary Tubridy, Mary Tubridy & Associates

Email: mtubridyassociates@gmail.com

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1 Introduction

1.1 Background

This report has been written at the request of Ait to assist Fingal County Council in carrying an ecological assessment of a proposal to develop a park in the Naul, Fingal.

The site is situated behind the Seamus Ennis Centre (Fig.1). It consists of two fields principally used for storage of waste building materials.



Fig. 1 Park site in the Naul

1.2 Brief

The brief was 1) to provide an ecological assessment of the site to inform landscaping plan and 2) advise on the need for further ecological studies to ensure landscaping scheme would be compatible with biodiversity.

The project was carried out by Dr Mary Tubridy, MCIEEM, MIPI. Mary is the principal of Mary Tubridy and Associates an ecological consultancy set up in 1995. She has worked with specialist associates to examine the environmental impact of numerous developments as well as being involved in strategic studies for the government examining the relationship between biodiversity and spatial planning. This assessment took full regard for legislation and best practice in biodiversity recording and assessment.

1.3 Desk research

The following sources of published material were consulted:

Review of the National Parks & Wildlife Service (NPWS) natural heritage database covering designated areas of ecological interest and sites of nature conservation importance within and adjacent to the site. Designated sites within the zone of influence were identified and their relationship to the features of biodiversity interest was assessed. Special Areas of Conservation (SACs) are sites of international importance due to the presence of Annex I habitats and / or Annex II species listed under the EU Habitats Directive. Special Protection Areas (SPAs) are designated for birds based on the presence of internationally significant populations of listed bird species. Natural Heritage Areas (NHAs) are sites deemed to be of national ecological importance and can be afforded protection under the Wildlife (Amendment Act) 2000.

Review of Ordnance Survey maps and ortho-photography to clarify the history of land use.

Review of the National Biodiversity Data Centre (NBDC) database for records of rare and protected species and invasive species.

Review of the National Biodiversity Data Centre (NBDC) database for mapping of Bat Landscapes for Ireland (Lundy *et al.*, 2011) and bat roost sites within a 10km radius of the site.

Review of the EPA envision site to obtain information on water quality in watercourses in the local catchment.

1.4 Fieldwork

Walkover survey of the site was undertaken in January 2021 by Dr Mary Tubridy and an associate to characterize habitats, assess their biodiversity value and examine the potential of the park to support badger, bats and Brent geese. The habitats found in these areas were classified in accordance with the guidelines set out in 'A Guide to Habitats in Ireland' (Fossitt, 2000), which classifies habitats based on the vegetation present and management history. Dominant plant species, indicator species and / or species of conservation interest were recorded during the walkover survey following the nomenclature as given in the '*New flora of the British Isles*' (Stace, 2010).

Habitats were assessed for their potential for use by protected species of flora and fauna during the site walkover. Fauna were surveyed through observation of field signs such as direct observation, tracks, feeding signs and droppings. The conservation status of mammals was considered with reference to the Irish Wildlife Act (as amended), Red List of Terrestrial Mammals (Marnell *et al.* 2009) and the EU Habitats Directive. The conservation status of habitats and flora was considered in respect of the following: Irish Red Data Book for Vascular Plants (Wyse Jackson *et al.* 2016); Flora Protection Order (2015); the EU Habitats Directive (92/43/EEC).

The assessment of the value of these sites for birds was based on an expert assessment of the value of suitable habitats for either bird feeding, roosting or nesting.

1.5 Assessment

The valuation of ecological features is in accordance with the methodology detailed in National Roads Authority Guidelines (2009). To qualify as an ecological feature (referred to as key ecological receptors in the NRA Guidelines), features must be at least of local ecological importance (higher value).

A preliminary ecological impact assessment (EcIA) of the proposed landscaping scheme was made following the methodology set out in CIEEM (2018) and with reference to BS 42020:2013.

A significant effect is defined in CIEEM (2018) as:
“an effect that either supports or undermines biodiversity conservation objectives for ‘important ecological features’.... or for biodiversity in general”.

2 Biodiversity baseline

With the exception of a hedgerow no evidence was found for the presence of semi-natural habitats on site. Historic mapping reveals that the site was in two parcels separated by a hedgerow with no signs of surface drainage. In recent decades (probably in association with the development of the Seamus Ennis centre) the land in the field to the west of the hedgerow was disturbed drastically through reprofiling and removal of top soil throughout. Almost 50% of the land in the eastern parcel was similarly affected.

While the the Delvin river flows to the north of the site (c 500m) there are no hydrological connections between the site and Delvin which is of good quality in this locality (according to EPA assessment)

Fig. 2 shows the location of relevant Natura sites within 15km of the site of the park. An account of the nearest Natura site, River Nanny Estuary and Shore SPA No. 004158 is in Appendix 1.

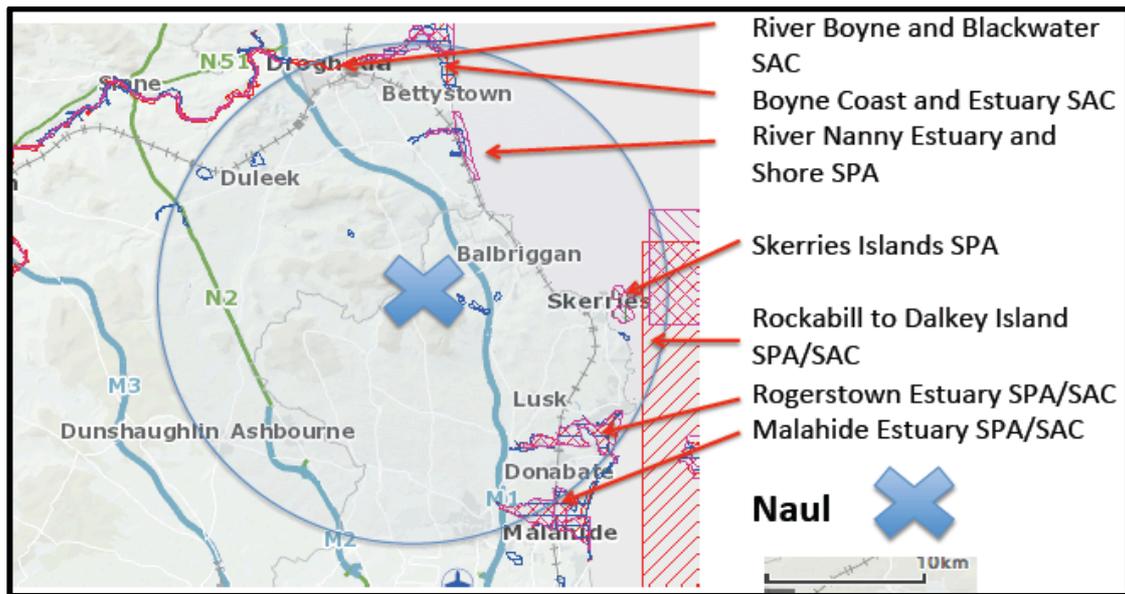


Fig. 2 Natura sites within 15km of the Naul

It is noteworthy that the Natura sites in the vicinity of the proposed park are dominated by wetland habitats, principally associated with the coast. With the exception of otter all of the qualifying interests are bird species principally associated with marine environments.

Fieldwork revealed that the short length of isolated hedgerow (habitat WL1) within the site is the most valuable feature of biodiversity interest (Fig.3). While it is gappy and has a limited range of native trees and shrubs it is useful feeding nesting and roosting area for common songbirds. The hedgerow is also of cultural importance as it was present on the 1st ed OS map.



Fig. 3 Hedgerow in site

Other features of interest include the bramble thicket in the south west corner (habitat WS1), the wall bounding the site to the south (habitat BL1) and the grassland / shrubbery in undisturbed area at north east corner (habitat mosaic

of GS2 and WS1) which has native soft rush, grasses typical of wet grassland and common gorse. Careful searching did not reveal any signs of badger in suitable habitat.

All other parts of the site have rough grassland with common species which can invade disturbed ground (habitat ED3). A thorough search revealed that invasive species were not present.

As no wetlands are present it can be assumed that the site does not support amphibians and reptiles.

3 Assessment of development proposal

3.1 Proposed design

Details of the landscaping scheme are shown in Fig. 4.



Fig. 4 Design proposal

This design was informed by a biodiversity audit. As a result the principal feature of biodiversity interest, the hedgerow, has been retained. It will be managed to improve its biodiversity and amenity values.

Provision has been made for community activities including performance areas, an outdoor market, community garden, naturalistic playground and the provision of car parking on permeable paving.

Lighting is not proposed thus avoiding any disturbance to nocturnal species.

Best practice construction methods will be adhered to, to avoid causing damage to root protection areas. All potentially polluting materials will be carefully stored and managed.

3.2 Environmental impact

No direct, indirect or secondary impacts will occur to Natura sites.

The proposed development will not lead to a reduction or loss of any habitats within the Natura sites or annexed habitats outside it. Fieldwork in January 2021 suggests that the habitats are not similar to those found in the Natura sites. With the exception of the hedgerow habitats which will be disturbed are common types of low value for biodiversity.

Neither will the landscaping works proposed lead to the fragmentation of the habitats used by species associated with the nearby Natura sites as fieldwork in January confirmed that the park is of low potential as feeding, roosting or nesting sites for these species. It was also considered that the park has low potential as a foraging, commuting or roosting area for bats.

Indirect impacts such as impacts to local water quality will not occur as there are no hydrological connections between the site and Delvin River.

Water if needed to establish landscaping will be provided through the council's supply.

While some disturbance will occur to biodiversity, this will be of limited duration. Any works adjacent to the hedgerow will occur between 1st September and 1st March to avoid disturbance to nesting birds.

4 Conclusions

The walkover survey showed that with the exception of the hedgerow the habitats affected by park development are common types of low biodiversity value.

As there was no evidence that the area to be affected by landscaping is important for bat roosting, or/and trees proposed for felling were considered to be potential bat roosts it was considered that bat surveys did not need to be carried out.

During the walkover survey particular care was taken to examine sites for signs of badger activity. As badger activity was not detected at any of these sites therefore a badger specific survey was not undertaken. As the walkover survey in January did not reveal suitable habitats for these groups a reptile and amphibian survey was not carried out. While surveys for invertebrates were not specifically undertaken the importance of these sites and features to

invertebrates was interpreted by its relationship to the habitats and plant species found at each location.

Therefore it can be concluded that while there will be a short term impact on biodiversity values due to construction activities the development of the site as an amenity area will not have a significant long term negative impact on biodiversity values in the locality.

References

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Coastal, Freshwater and Marine. The Institute for Ecology and Environmental Management.

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NPWS (6/10/2014). Site Synopsis for the River Nanny and Estuary SAC. (www.npws.ie)

Transport Infrastructure Ireland (2009) Guidelines for Assessment of Ecological Impacts of National Roads Schemes, National Roads Authority, Dublin.

Stace, C. (2019) New Flora of the British Isles 4th ed. C and M Floristics, UK.

Wyse Jackson M., *et al* (2016) Ireland Red List No. 10: Vascular Plants. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin, Ireland.

Appendix 1 River Nanny Estuary and Shore SPA No. 004158 Site Synopsis

The site comprises the estuary of the River Nanny and sections of the shoreline to the north and south of the estuary (c. 3 km in length), in Co. Meath. The estuarine channel, which extends inland for almost 2 km, is narrow and well sheltered. Sediments are muddy in character and edged by saltmarsh and freshwater marsh/wet grassland. The saltmarsh is best developed in the eastern portion of the estuarine channel, with species such as Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Red Fescue (*Festuca rubra*) and Sea Purslane (*Halimione portulacoides*) occurring. Further up the estuary, the marsh habitats support species such as Bulrush (*Typha latifolia*) and Yellow Flag (*Iris pseudacorus*). The shoreline, which is approximately 500 m in width to the low tide mark, comprises beach and intertidal habitats. It is a well-exposed shore, with coarse sand sediments. The well-developed beaches, which are backed in places by clay cliffs, provide high tide roosts for the birds. The village of Laytown occurs in the northern side of the River Nanny estuary.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Oystercatcher, Ringed Plover, Golden Plover, Knot, Sanderling and Herring Gull. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

This is an important site for wintering waders, with nationally important populations of Golden Plover (1,759), Oystercatcher (1,014), Ringed Plover (185), Knot (1,140) and Sanderling (240) present (all figures are mean peaks for the 5 year period 1995/96-1999/2000). The populations of Knot and Sanderling are of particular note as they represent approximately 4% of their respective national totals. Herring Gull (609) also occurs here in nationally important numbers. A range of other waterbirds also occurs, including Cormorant (35), Light-bellied Brent Goose (145), Mallard (76), Grey Plover (55), Lapwing (1,087), Dunlin (721), Bar-tailed Godwit (59), Curlew (107), Redshank (150), Turnstone (59), Black-headed Gull (926), Common Gull (66) and Great Black-backed Gull (70). The site is of most importance as a roost area for the birds but the intertidal flats also provide feeding habitat. The River Nanny Estuary and Shore SPA is of ornithological importance as it supports five species of wintering waterbirds and one gull species in numbers of national importance. The regular occurrence of two species listed on Annex I of the E.U. Birds Directive, i.e. Golden Plover and Bar-tailed Godwit, is of note.

Assessment dated
20.1.2015

Appendix 2 Preliminary assessment to inform landscaping scheme

Dr Mary Tubridy December 21st 2020

Geodiversity/landscape interest

Principal use of the site has been as a dump for subsoil and builders rubble. Some feeble attempts at landscaping (treeline) along the R122. Site divided by hedgerow to east but land use principally the same at both sides. Despite so much disturbance original soil is still found in two small parts of the site; immediately beside R122 near the Cultural Centre and at southern end of small field to east.

Area of biodiversity interest where great care is needed in planning and development

Short length of isolated hedgerow at east of site. Pic attached. With limited range of native trees and shrubs. Useful for robin and blackbird as feeding, roosting and nesting areas.

Other areas of interest

Bramble thicket in north west corner (pic attached)
Wall bounding the site at south west (attractive feature).
Grasslands/shrubbery in undisturbed area at south east corner which has native soft rush, grasses typical of wet grassland and common gorse.

All other areas

All other areas have rough grassland with species which can invade disturbed ground. Providing food for pollinators etc. No special plant species. Took particular care to look for Knotweed. Site is clear.

Comments

Site not far from an area of particular biodiversity value, north of village with a river, artificial lake, mature trees. Development for biodiversity could act as stepping stone into village for species from there.

Its development should be informed by community meetings hosted by Seamus Ennis centre. Student worker there Ian ? very interested in the redevelopment of the field and very impressed by Weaver Square Park.

