
Screening for Appropriate Assessment

Proposed development at
Seaview Terrace, Bettystown, Co. Meath

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of Meath County Council (the applicant), as part of a planning application for a development at Seaview Terrace, Bettystown, Co Meath. The proposed development will involve the demolition of three existing residences, and the construction of a range of community facilities associated with the adjacent Bettystown beach.

The proposed development site is located within 5 km of four Natura 2000 sites: the *River Nanny Estuary and Shore* Special Protection Area (SPA), *Boyne Estuary and Coast* Special Area of Conservation (SAC), *Boyne Estuary* SPA, and *River Boyne and River Blackwater* SAC. In accordance with their obligations under the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477/2011), the planning authority must assess whether the proposed development could have 'likely significant effects' on these or any other Natura sites.

This document provides supporting information to assist the local authority with an Appropriate Assessment screening exercise, including: a description of the proposed development, details of its environmental setting, and a map and list of Natura 2000 sites within the potential zone of impact. Following an assessment of potential impact pathways, we conclude that the proposed development will not cause direct or indirect impacts on any Natura 2000 sites, and thus that Appropriate Assessment is not required.

1 Introduction

1.1 Background to Appropriate Assessment

Approximately 10% of the land area of Ireland is included in the European Network of Natura 2000 sites, which includes Special Protection Areas (SPAs) to protect important areas for birds, and Special Areas of Conservation (SACs) to protect a range of habitats and species. Legislative protection for these sites is provided by the *European Council Birds Directive (79/409/EEC)* and *E.C. Habitats Directive (92/43/EEC, as amended)*, which are jointly transposed into Irish law by the *European Communities (Birds and Natural Habitats) Regulations 2011 (SI 477/2011, as amended)*.

Regulation 42 (1) states that: “*Screening for Appropriate Assessment of a plan or project for which an application for consent is received [...] shall be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that plan or project, individually or in combination with other plans or projects is likely to have a significant effect on [any Natura 2000 sites].*” To ensure compliance with this regulation, planning authorities must screen all planning applications for potential impacts on Natura 2000 sites. Supporting information may be requested from the applicant to assist with this process.

This document provides background information to assist the local authority with a *Screening for Appropriate Assessment* exercise for the proposed development. It includes an outline of the proposed works, details of the environmental setting of the site, an appraisal of future development proposals in the area (potential for ‘in-combination effects’), a map and list of Natura 2000 sites within the potential zone of impact, and an assessment of potential impacts.

1.2 Statement of authority

This report was prepared by Nick Marchant, the principal ecologist of NM Ecology Ltd. He has an MSc in Ecosystem Conservation and Landscape Management from NUI Galway and a BSc in Environmental Science from Queens University Belfast. He is a member of the Chartered Institute of Ecology and Environmental Management, and operates in accordance with their code of professional conduct.

He has thirteen years of professional experience, including ten years as an ecological consultant, one year as a local authority biodiversity officer, and two years managing an NGO in Indonesia. He provides ecological assessments for developments throughout Ireland and Northern Ireland, including wind farms, infrastructural projects (water pipelines, greenways, etc.), and a range of residential and commercial development.

1.3 Methods

This report has been prepared with reference to the following guidelines:

- *Appropriate Assessment of Plans and Projects in Ireland* (Department of the Environment, Heritage and Local Government, 2009)
- *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4), E.C., 2002*
- *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (Chartered Institute of Ecology and Environmental Management, 2018)

In accordance with Section 3.2 of *Appropriate Assessment of Plans and Projects in Ireland*, a screening exercise comprises the following steps:

1. Description of the project and local site characteristics
2. Identification of relevant Natura 2000 sites, and compilation of information on their qualifying interests and conservation objectives
3. Assessment of potential impacts upon Natura 2000 sites, including:
 - Direct impacts (e.g. loss of habitat area, fragmentation)
 - Indirect impacts (e.g. disturbance of fauna, pollution of surface water)
 - Cumulative / 'in-combination' effects associated with other concurrent projects
4. Screening Statement with conclusions

A desk-based study was carried out using data from the following sources:

- Initial plans and specifications for the proposed development
- Qualifying interests / conservation objectives of Natura 2000 sites from www.npws.ie
- Bedrock, soil, subsoil, surface water and ground water maps from the Geological Survey of Ireland webmapping service (www.gsi.ie/mapping.htm), the National Biodiversity Data Centre (<http://maps.biodiversityireland.ie/>), and the Environmental Protection Agency web viewer (<http://gis.epa.ie/Envision/>)
- The *Meath County Development Plan 2013 – 2019*, the *East Meath Local Area Plan 2014-2020*, and details of permitted or proposed developments from the local authority's online planning records
- The *Laytown, Bettystown and Mornington Beach Management Plan* (AECOM, on behalf of Meath County Council, 2018), and accompanying Natura Impact Statement

All web-based resources were accessed between June 2019 and June 2020.

2 Description of the Project

2.1 Environmental setting

The proposed development site is located in Bettystown, which is on the coast of County Meath. The site currently contains three terraced houses, with an associated outbuilding, driveway, parking area and garden. It is located in the centre of Bettystown, and is surrounded by shops, bars, and takeaways. The Mornington-Bettystown-Laytown beach is located immediately to the east of the site. Seaview Terrace (a road located immediately south of the site) provides access to a parking area on the beach.

Geology and soils

The underlying bedrock is limestone (pale micritised grainstone-wackestone), which is a regionally-important karstified aquifer. Subsoils are windblown sands, and soils are a mixture of made ground and sands.

Hydrology

A small watercourse – the Betaghstown Stream – formerly passed approximately 20 m south-west of the site. However, this watercourse was diverted north-west into the Mornington Stream, so it no longer flows through Bettystown (Plate 1). Therefore, this watercourse is no longer relevant to the development. There are no other watercourses in the vicinity of the proposed development site.

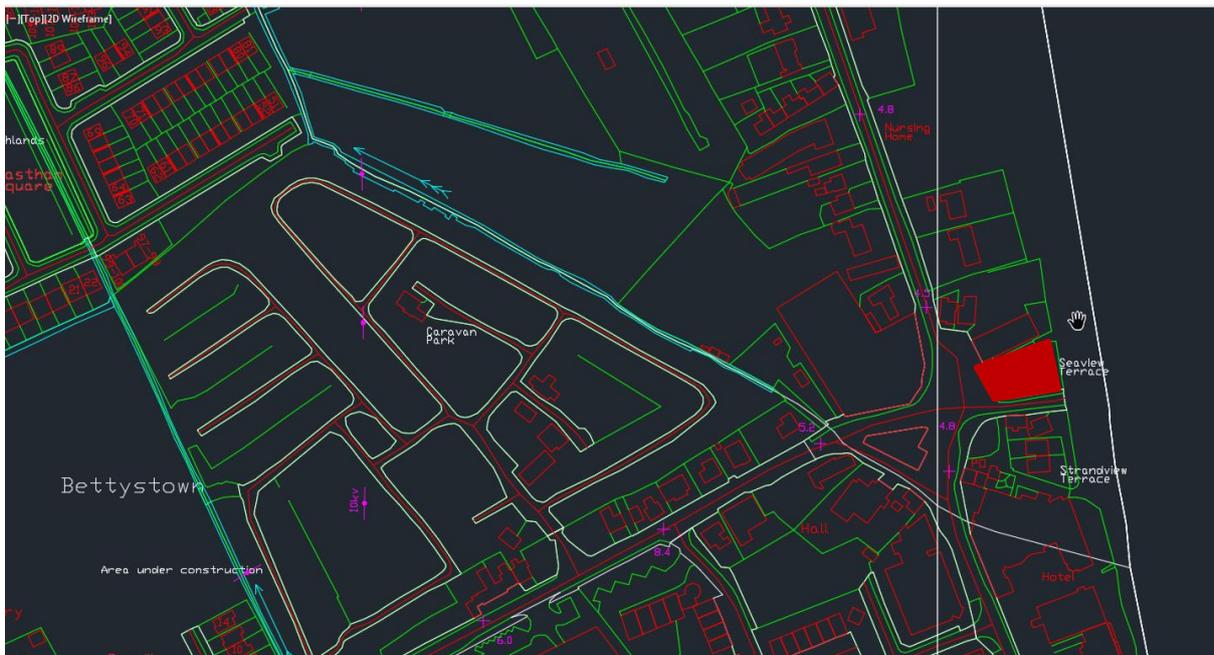


Plate 1: The direction of flow of the Mornington Stream. The proposed development site is shown in red. The direction of flow of the watercourse is shown using blue arrows

2.2 Description of the proposed development

The proposed development will involve the demolition of the three existing residences, and the construction of a number of community facilities to serve the beach, including:

- Lifeguard tower and ancillary facilities
- Beach warden office
- Beach maintenance and wheelchair store/area
- Community meeting room
- Library
- Showers and changing area
- Public toilets
- Pedestrian-friendly civic space
- Traffic management measures
- Steps to provide pedestrian access to the foreshore
- Provision for underground recycling bins.

Foul water from the proposed development will be discharged to a local authority foul sewer on the R150 Coast Road, and treated at the Drogheda Waste Water Treatment Works. Rainwater from roofs and hard surfaces will be discharged to a storm sewer on Seaview Road, which discharges to sand on Bettystown Beach, a short distance to the south-east of the proposed development site. These proposals do not represent any change from the pre-development scenarios.

Detailed descriptions of the development proposals can be found in the attached planning documents.

2.3 Other nearby developments (potential in-combination effects)

The proposed development site is included in zone B1: Commercial / Town Centre of the East Meath Local Area Plan 2014 - 2020, for which the zoning objective vision is “to protect, provide for and / or improve town and village centre facilities and uses.” Lands to the north-west of the site are zoned for tourism, and the coastal area to the north and east of the site is zoned as ‘high amenity’. The surrounding area is relatively settled and is unlikely to be subject to significant development pressure in the coming years.

The online planning portal of Meath County Council was searched for live or recently-approved planning applications in the vicinity of the proposed development site. All were for small-scale developments such as residential extensions or changes of use, and no significant developments were identified in the surrounding area. Therefore, no nearby developments were identified that could potentially cause cumulative impacts in association with the proposed development.

2.4 Laytown, Bettystown and Mornington Beach Management Plan

The beach management plan sets out a strategy for the day-to-day management of the beach in future years. A Natura Impact Statement (NIS) for the plan was prepared by AECOM Ireland Ltd in July 2018. Potential impacts were considered on three Natura 2000 sites, and mitigation measures were proposed, including new signage within dune habitats, and litter-management facilities in public areas.

Potential impacts from the proposed development at Seaview Terrace were screened out of the NIS pending a separate, site-specific assessment. Nonetheless, the following is concluded in relation to the management of the beach: *“Following implementation of mitigation measures, it is the view of AECOM that the Draft Plan would have no adverse effects on the integrity of any European sites, either alone or in-combination with other plans or projects.”*

3 Description of Natura 2000 sites

3.1 Identification of Natura 2000 sites within the zone of impact

The proposed development site is not located within any Natura 2000 sites. Potential indirect impacts were considered within a zone of impact¹ of 5km. The locations of relevant sites are shown in Figure 1, and details are provided in Table 1.

¹ In *Appropriate Assessment of Plans and Projects in Ireland*, it is noted that the potential ‘zone of impact’ of a development *“must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, the sensitivities of the ecological receptors, and the potential for in-combination effects.”* A radius of 15km may be used for large-scale projects, but for small projects it may be as little as 100m.

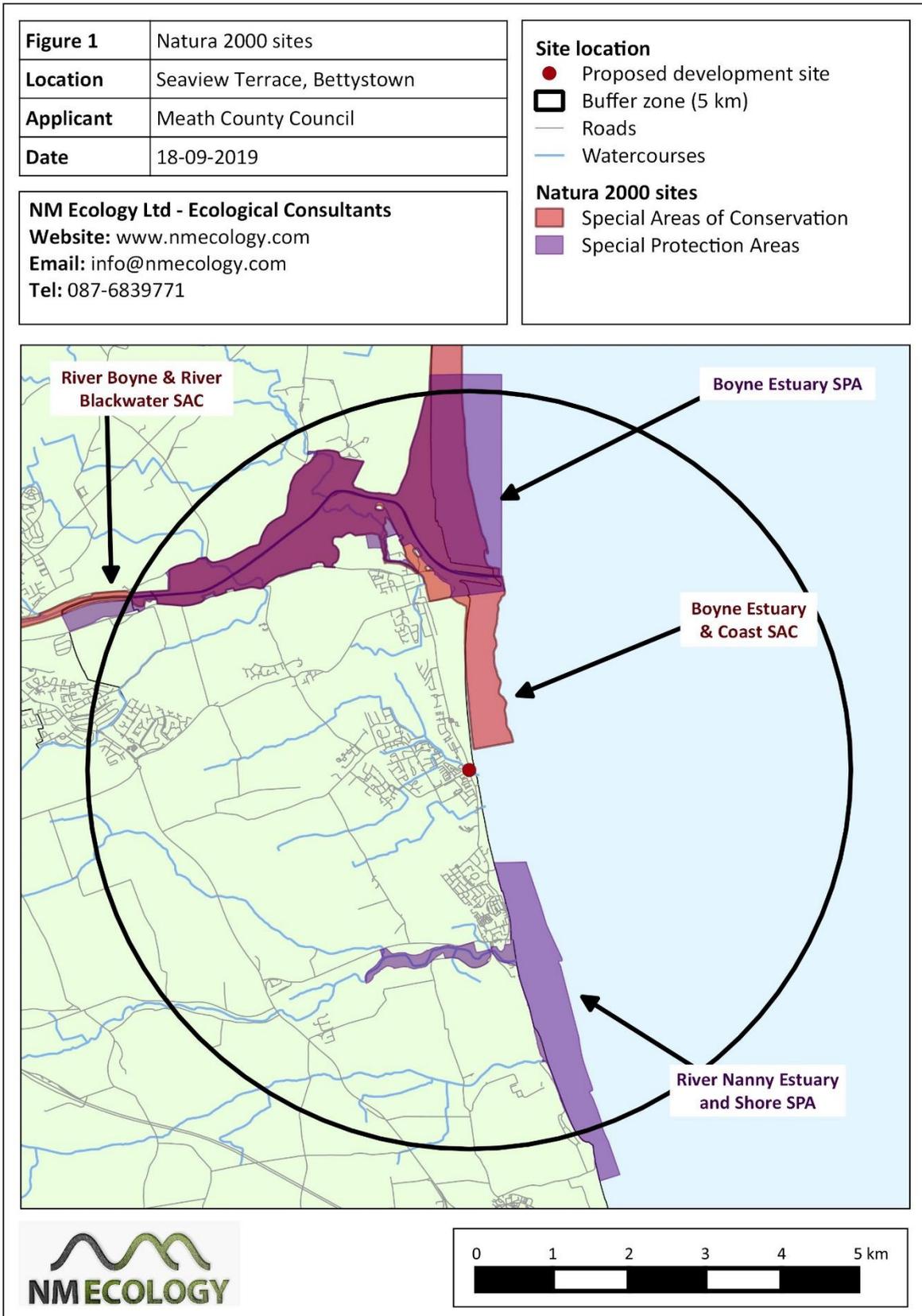


Table 1: Natura 2000 sites of relevance to the proposed development

Site Name	Distance	Qualifying Interests
Boyne Coast and Estuary SAC (site code 1957)	0.3 km north	Annex I habitats: estuaries, mudflats / sandflats, annual vegetation of drift lines, <i>Salicornia</i> and other annuals colonising mud and sand, Atlantic salt meadows, embryonic shifting dunes, shifting dunes, fixed coastal dunes with herbaceous vegetation Annex II species: none
River Nanny Estuary and Shore SPA (4158)	1.2 km south	Key habitats: coastal wetlands Special Conservation Interests: oystercatcher, golden plover, ringed plover, knot, sanderling, herring gull
Boyne Estuary SPA (4080)	2.3 km north	Key habitats: coastal wetlands Special Conservation Interests: shelduck, oystercatcher, golden plover, grey plover, lapwing, knot, sanderling, black-tailed godwit, redshank, turnstone, little tern
River Boyne and River Blackwater SAC (site code 2299)	4.9 km north-west	Annex I habitats: alkaline fens, alluvial forests Annex II species: river lamprey, salmon, otter

3.2 Potential pathways for indirect impacts

Indirect impacts on Natura 2000 sites can occur if there is a viable pathway between the source (the proposed development site) and the receptor (the qualifying interests of a Natura 2000 site). The most common pathway for impacts is surface water, for example if a pollutant is washed into a river and carried downstream into a designated site. Other potential pathways are groundwater, air (e.g. sound waves or airborne dust), or land (e.g. flow of liquids, vibration). The zone of effect for hydrological impacts can be several kilometres, but for air and land it is rarely more than a few hundred metres. The magnitude of impacts (e.g. the concentration of pollutants) usually decreases as the distance between source and receptor increases. An appraisal of potential pathways for indirect impacts on the Natura 2000 sites listed in Table 1 is provided below. If a viable pathway is identified, it will be considered in greater detail in the impact assessment in Section 4.

The *Boyne Estuary and Coast SAC* is located approx. 0.3 km north of the proposed development site. There is no clear pathway between the proposed development site and the SAC via surface water, land or air. In theory there could be a tenuous connection to the SAC via groundwater, e.g. if pollutants from the proposed developments could percolate to ground and seep east towards the coast, or via the surface water sewer on Seaview Road that discharges to sand on

Bettystown Beach. However, considering the filtration provided by underlying sands, and the dilution provided by coastal waters, the chance that pollutants could reach the SAC in sufficient concentrations to affect its qualifying interests (e.g. mudflats / sandflats) is considered to be negligible. Therefore, all potential impact pathways to the *Boyne Estuary and Coast* SAC are ruled out.

The *River Boyne and River Blackwater* SAC is located 4.9 km from the proposed development site, and covers the freshwater (i.e. non-estuarine) section of the River Boyne. Due to the direction of flow of the river, there is no hydrological pathway by which any material from the proposed development could reach this SAC. Other pathways via air and land can be ruled out due to the distances involved.

Both the *River Nanny Estuary and Shore* SPA and for the *Boyne Estuary* SPA are more than 1 km from the proposed development site. Surface water pathways can be ruled out due to the dilution effects of coastal waters, and all other pathways can be ruled out due to distance.

In summary, no viable pathways for indirect impacts were identified to any of the Natura 2000 sites listed in Table 1.

3.3 Bird activity

The proposed development site is located more than 1 km from either of the SPAs listed in Table 1. Nonetheless, records of bird activity in the vicinity of the proposed development site are reviewed below. Desktop records of birds from the Laytown, Bettystown and Mornington Beach (i.e. the coastline between the River Boyne and the River Nanny) were presented in the NIS for the beach management plan (AECOM Ireland Ltd, 2018). The following bird species were noted:

- Little Tern nest on shingle beaches north of the Boyne Estuary at Baltray
- Significant low tide feeding populations of six wintering bird species herring gull, golden plover, knot, oystercatcher, ringed plover, sanderling
- Significant high tide roosting populations of golden plover, knot, oystercatcher, redshank, herring gull.

The Little Tern nesting site is at the mouth of the River Boyne, approx. 2.5 km north of the proposed development site. The high-tide roosting populations are largely restricted to the Nanny Estuary at the southern end of the Draft Plan area, which is approx. 2.5 km south of the proposed development site. The only birds roosting in the vicinity of Bettystown are black-headed gull, common gull and herring gull. Low-tide feeding populations are typically concentrated around the mouths of river, but small numbers of birds feed along the coastline.

In summary, the only significant bird activity in the vicinity of the proposed development site is the mixed gull roost at Bettystown.

3.4 Conservation objectives

The standard conservation objective for all SACs and SPAs in Ireland is “to maintain or restore the favourable conservation condition of the qualifying interests for which the SAC / SPA has been selected”. In addition, the Department of Arts, Heritage and the Gaeltacht have produced detailed conservation objectives for the Natura 2000 sites listed above. They can be viewed on the website of the National Parks and Wildlife Service (<http://www.npws.ie/protected-sites>), but relevant details for the SPAs are summarised below.

The *River Nanny Estuary and Shore* SPA and the *Boyne Estuary* SPA are large sites that cover a range of estuarine and coastal wetlands around the mouths of the Nanny and Boyne rivers. Both sites have been designated to protect a range of over-wintering waterfowl, predominantly waders. At low tide the overwintering birds spread across estuarine mudflats (and to a lesser extent sandflats) to feed on invertebrates in the sediment, and at high tide most species roost in open areas along the coast. Many of the birds move freely between other SPAs on the east coast of Ireland, such as the Dundalk Bay SPA and the estuaries of north county Dublin, including Rogerstown and Malahide.

Conservation objectives: wetland habitat

This objective applies to all intertidal habitats within each SPA, which have a total area of 230 ha in the *River Nanny Estuary and Shore* SPA and 594 ha the *Boyne Estuary* SPA.

“To maintain the favourable conservation condition of the wetland habitat in the SPA as a resource for the regularly occurring migratory waterbirds that utilise it. This is defined by the following attribute and target: the permanent area occupied by the wetland habitat should be stable and not significantly less than the [existing area of each site], other than that occurring from natural patterns of variation”.

Conservation objectives: overwintering birds

This objective applies to all overwintering birds that use the SPAs: shelduck, ringed plover, golden plover, grey plover, oystercatcher, knot, sanderling, black-tailed godwit, lapwing, redshank, turnstone and herring gull. Most of these species are winter migrants, which spend the non-breeding / winter season (usually between October and April) in Ireland / western Europe, and migrate to Arctic / sub-Arctic regions during the breeding season. Some species are present year-round, but the populations of all species are highest during the winter.

At low tide waders feed on sediment-dwelling macro-invertebrates, primarily within the intertidal sandflat and mudflat habitats. At high tide most species roost on the water’s edge or fly inland to roosting / feeding sites. Gulls typically scavenge in a range of habitats.

The conservation objective for these species is:

“To maintain the favourable conservation condition of [over-wintering waterfowl], which is defined by the following list of attributes and targets:

- *Long term population trend stable or increasing*
- *No significant decrease in the range, timing or intensity of use of areas by [relevant species], other than that occurring from natural patterns of variation”*

Baseline populations trends of key conservation interests

Of the 12 over-wintering species for which the sites were designated, three (lapwing, redshank and herring gull) are included on the red list of Species of Conservation Concern in Ireland (Culhoun & Cummins 2013). In all cases this is due to declines in their breeding populations, but for lapwing it is also due to a decline in the over-wintering population. Four species (oystercatcher, grey plover, knot and black-tailed godwit) are included on the amber list of Species of Conservation Concern in Ireland (Culhoun & Cummins 2013). This is due to a localised over-wintering population (oystercatcher, grey plover, black-tailed godwit) and/or declines in the winter population (grey plover, knot), but for black-tailed godwit it is also due to declines in breeding range. The other five species have stable or increasing populations.

Key threats to waterfowl

In the *Action plan for shore and lagoon birds in Ireland 2011-2020* (Birdwatch Ireland 2011), the following threats are listed for coastal birds:

- Recreation and disturbance
- Habitat loss, degradation and fragmentation
- Coastal developments
- Pollution and oil spills
- Climate change
- Alien invasive species and predation
- Mineral and resource use
- A general lack of awareness of the importance of nature and biodiversity

4 Assessment of potential impacts

A detailed review of potential direct, indirect and in-combination effects is presented below. In accordance with the Court of Justice of the European Union ruling on case C-323/17 ‘People Over Wind and Peter Sweetman v Coillte’, this impact assessment has been undertaken without consideration of mitigation measures, e.g. any of the environmental protection measures in the accompanying Construction & Environmental Management Plan.

4.1 Direct impacts

The proposed development site is not located within any Natura 2000 sites, so there is no risk of habitat loss, fragmentation or any other direct impacts.

4.2 Indirect impacts

Potential changes in water quality (construction phase)

Construction works typically generate fine sediments, and may occasionally cause accidental spills of oil or other toxic chemicals, which can be harmful to aquatic / marine habitats and species. However, no viable pathways for indirect impacts were identified to any of the Natura 2000 sites identified in Table 1. As a result, there is no risk of 'likely significant effects' on the qualifying interests of the SAC or SPA.

Potential changes in water quality (operational phase)

All foul water from the proposed development will be discharged to a local authority sewer and treated in the Drogheda Waste Water Treatment Works. The Annual Environmental Report for the WWTW was reviewed, and it is currently within capacity and providing a high level of treatment before discharge to the Boyne Estuary. It is the responsibility of Irish Water to provide adequate treatment of foul water passing through the treatment plant, and to assess any potential impacts that it may have on the Natura 2000 network.

All surface-water runoff from roofs and hard surfaces will be discharged to a storm sewer on Seaview Road, which discharges to sand on Bettystown Beach, a short distance to the south-east of the proposed development site. This represents no change from the pre-development scenario. Rainwater is unpolluted, and any trace levels of pollutant in the discharge would be filtered by intervening sands and diluted by coastal waters, so there is no risk of indirect impacts on any of the Natura 2000 sites listed in Table 1.

Consequently, it can be concluded that foul water and surface water during the operation of the development would not cause any significant impacts upon water quality in any Natura 2000 sites.

Disturbance of birds (construction phase)

The boundary of the *River Nanny Estuary and Shore SPA* is located 1.2 km to the south of the proposed development site, and the boundary of the *Boyne Estuary SPA* is located 2.3 km to the north. The Natura Impact Statement for the *Draft Beach Management Plan for Mornington/ Bettystown / Laytown* (AECOM, 2018) included a review of bird activity along the coastline between the Boyne and Nanny estuaries. It was concluded that most bird activity is concentrated around the mouths of these rivers (both of which are approx. 2.5 km from the proposed development site), and that the only bird activity in the Bettystown area is a high-tide roost of over-wintering gulls. These species frequently occur in close proximity to coastal towns and villages, and are not sensitive to human disturbance.

The proposed development will involve demolition and construction works. This will inevitably generate some noise, although this will be controlled in order to avoid disturbance of residences

and businesses in Bettystown. Considering that there are no SPAs within 1 km of the proposed development site, that important bird areas are approx. 2.5 km from the site, and that the only birds recorded on a regular basis in the Bettystown area are gulls (which are not sensitive to human disturbance), the construction of the proposed development will not cause significant disturbance of birds.

Disturbance of birds (operational phase)

Bettystown Beach is used by a large number of visitors, particularly during summer months, but also during winter. The laneway at Seaview Terrace is the main access point to the beach, and is a focal point for human activity. Although the proposed development may encourage some small-scale clustering of people, it will not significantly increase the number of visitors to the beach. Considering that the only birds that are regularly recorded in the Bettystown area are not sensitive to human disturbance (as discussed in the previous section), the operation of the proposed development will not cause any significant disturbance of birds.

It is noted that recreational use of the Laytown, Bettystown and Mornington beaches has previously been assessed in the *Laytown, Bettystown and Mornington Beach Management Plan*, which was accompanied by a Natura Impact Statement (AECOM, 2018). Measures were proposed for the management of visitors, particularly dogs and horses. The proposed development will not affect the conclusions of the NIS.

4.3 Potential in-combination effects

No other live or recently-approved planning applications were identified in the surrounding area that could potentially act in-combination with the proposed development to cause 'likely significant effects' on the qualifying interests of the SAC or SPA.

5 Screening Statement: Conclusion of Stage 1

Article 42 (7) of the *European Communities (Birds and Natural Habitats) Regulations 2011* states that: "*The public authority shall determine that an Appropriate Assessment of a plan or project is not required [...] if it can be excluded on the basis of objective scientific information following screening under this Regulation, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site.*"

To assist the planning authorities with the screening exercise, we have provided supporting information including: a description of the proposed development; an outline of its environmental setting, details of Natura 2000 sites within the potential zone of impact, and an assessment of potential impacts. Based on this information, we have demonstrated that there will be no risk of direct or indirect impacts on any Natura 2000 sites, so we conclude that Appropriate Assessment is not required.

References

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