Screening for Appropriate Assessment

Proposed housing development at
Lindisfarne, Dublin 22

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of South Dublin County Council (the applicant), as part of a planning application for a site at Lindisfarne, Clonburris, Dublin 22. The proposed development will consist of 28 new residences and ancillary works.

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 any Natura 2000 sites. This document provides supporting information to assist the authority with an Appropriate Assessment screening exercise, including: a description of the proposed development, a review of the site's environmental setting, details of Natura 2000 sites within the potential zone of impact, an appraisal of *source-pathway-receptor* relationships, and an assessment of potential impacts.

It is concluded that the proposed development will not cause direct or indirect impacts on any Natura 2000 sites, either alone or in combination with other plans or projects, 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, public 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 South Dublin County Council with a *Screening for Appropriate Assessment* exercise for the proposed development. It includes a description of the proposed development, a review of the site's environmental setting, details of Natura 2000 sites within the potential zone of impact, an appraisal of *source-pathway-receptor* relationships, and an assessment of potential impacts.

1.2 Statement of authority

This report was written 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 (roads, water pipelines, greenways, etc.), and a range of residential and commercial developments.

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 and Coastal* (Chartered Institute of Ecology and Environmental Management, 2019)

In accordance with Section 3.2 of *Appropriate Assessment of Plans and Projects in Ireland*, the screening exercise was conducted using 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:

- 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 *South Dublin County Development Plan* 2016 – 2022, and details of permitted or proposed developments from the local authority's online planning records

All web-based resources were accessed in August 2020.

2 Description of the Project

2.1 Environmental setting

Site location and surroundings

The site currently consists of amenity grassland, with some footpaths and a small number of trees. It is bordered to the south, east and west by existing residences, and by internal roads within the Lindisfarne and Melrose housing estates. The northern boundary is formed by Lock View Road.

The surrounding area is predominantly in residential use, with some schools / colleges and small commercial facilities. To the north of Lock View road there is an expanse of amenity grassland, and the Grand Canal. There are some abandoned agricultural pastures to the north of the canal; this area will form part of the Clonburris Strategic Development Zone (refer to Section 2.3).

Geology and soils

The underlying bedrock is limestone and shale, which is a locally-important aquifer (Geological Survey of Ireland). Sub-soils are limestone till, and soils are grey-brown podzolics / brown earths, which are deep, neutral/alkaline and well drained. As the soil and bedrock is well drained, it is expected that most rainwater falling on the site would percolate to ground rather than flowing over land.

Hydrology

The closest waterbody is the Grand Canal, which is located approximately 100 - 150m north of the proposed development site. The canal is a proposed Natural Heritage Area (protected under the Wildlife (Amendment) Act 2000) in recognition of its diversity of habitats and value as an ecological dispersal route. Although water quality in the canal is not monitored, it is considered to be unpolluted, as it is a self-contained hydrological unit that is isolated from surrounding lands and does not receive surface water / waste water discharges. The canal has a series of locks that reduce its flow rate to very low levels. It discharges to the River Liffey estuary at Grand Canal Dock approx. 13.5 km to the east of the site.

The closest major river is the Camac River, which passes approximately 1.2 km to the south-east of the proposed development site. The river runs in a north-easterly direction and joins the River Liffey at Heuston Station approximately 10 km downstream. The Griffeen River is located approx. 2.2 km to the west of the proposed development site. It flows north and joins the River Liffey approx. 3.5 km downstream.

Under the Water Framework Directive Status assessments 2013 – 2018, the Camac River is currently of Poor status within Dublin City, and the Griffeen River is of Good Status. The River Liffey estuary is of Good status, as are the coastal waters of Dublin Bay.

2.2 Description of the proposed development

The development will comprise 28 residences in a range of designs. Road access will be from the Lindisfarne and Melrose housing estates, and on-street parking will be provided in these areas and along Lock View Road. Some houses will have private gardens, and public green space will be provided in the north of the site.

Detailed drainage proposals have not yet been developed; they have been deferred to the detailed design phase. It is expected that foul water will be discharged to local authority foul water sewers on adjoining roads, and will be treated in the Ringsend Waste Water Treatment Plant. Most rainwater falling on external areas and permeable paving will percolate to ground. It is expected that runoff from roofs and external hard surfaces will be discharged to local authority surface water sewers, and will be ultimately be discharged to a local watercourse.

2.3 Other nearby developments (potential in-combination effects)

The proposed development site is located in a suburban setting in the west of Dublin city. The site and adjoining housing estates are included in zone R2 'Existing residential' of the *South Dublin County Council Development Plan 2016* -2022, for which the planning objective is "*To protect and/or improve residential amenity*". As most of this area is already in residential use, it is not expected that there will be significant development pressure in this zone in the future.

Land to the north of the site is included in zone R3 'Residential, mixed residential and other uses', and specifically in zone SDZ, for which the planning objective is "*To provide for strategic development in accordance with approved planning schemes*". This area is included in the Clonburris Strategic Development Zone, which was approved by An Bórd Pleanála in 2019. The plan provides a framework for future residential, commercial and educational uses in the future. However, the land between the proposed development site and the Grand Canal is designated as a public park, matching the current land use. Therefore, there will be no significant development in the immediate vicinity of the proposed development site.

Live and recently-approved planning applications in the vicinity of the site were reviewed on the online planning records of South Dublin County Council. A rapid-build housing development was approved at St Cuthbert's Park in 2016 (planning reference SD168/0007), approx. 350 m south of the proposed development site. It is understood that this development is currently nearing completion, and it will be complete before the construction of the proposed development, so there is no risk of in-combination effects.

All other recent applications in the surrounding area were for small-scale developments such as residential extensions or alterations. None were considered to pose a risk of in-combination effects.

3 Description of Natura 2000 sites

3.1 Identification of Natura 2000 sites within the zone of influence

There are no Natura 2000 sites within 5 km of the proposed development site (Figure 1). However, considering its proximity to the Grand Canal and other watercourses, which are connected to the River Liffey, the potential zone of impact[1] was extended eastwards to include the Natura 2000 sites in Dublin Bay. A map of relevant sites is shown in Figure 1, and a description of each site is presented in Table 1. Distances are measured along connecting watercourses.

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

Site Name	Distance	Qualifying Interests
South Dublin Bay and River Tolka Estuary SPA (site code 4024)	17 km downstream	**Habitats:** coastal wetlands **Special conservation interests:** light-bellied brent goose, oystercatcher, ringed plover, grey plover, knot, sanderling, dunlin, bar-tailed godwit, redshank, black-headed gull (wintering populations), arctic tern, roseate tern (passage), and common tern (breeding and passage)
South Dublin Bay SAC (210)	17.5 km downstream	**Annex I habitats:** inter-tidal mudflats / sandflats **Annex II species:** none
North Dublin Bay SAC (206)	20 km downstream	**Annex I habitats:** inter-tidal mudflats / sandflats (including patches of *Salicornia* and other annuals), *Spartina* swards, salt marshes, annual vegetation of drift lines, embryonic shifting dunes, white dunes, grey dunes, dune slacks **Annex II species:** petalwort *Petalophyllum ralfsii*
North Bull Island SPA (4006)	20 km downstream	**Habitats:** coastal wetlands **Special conservation interests:** wintering populations of light-bellied brent goose, Shelduck, teal, pintail, shoveler, oystercatcher, golden plover, knot, sanderling, dunlin, black-tailed godwit, bar-tailed godwit, curlew, redshank, turnstone, black-headed gull

[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.*"

Figure 1	Natura 2000 sites
Location	Lindisfarne, Dublin 22
Applicant	South Dublin County Council
Date	05 Aug 2020

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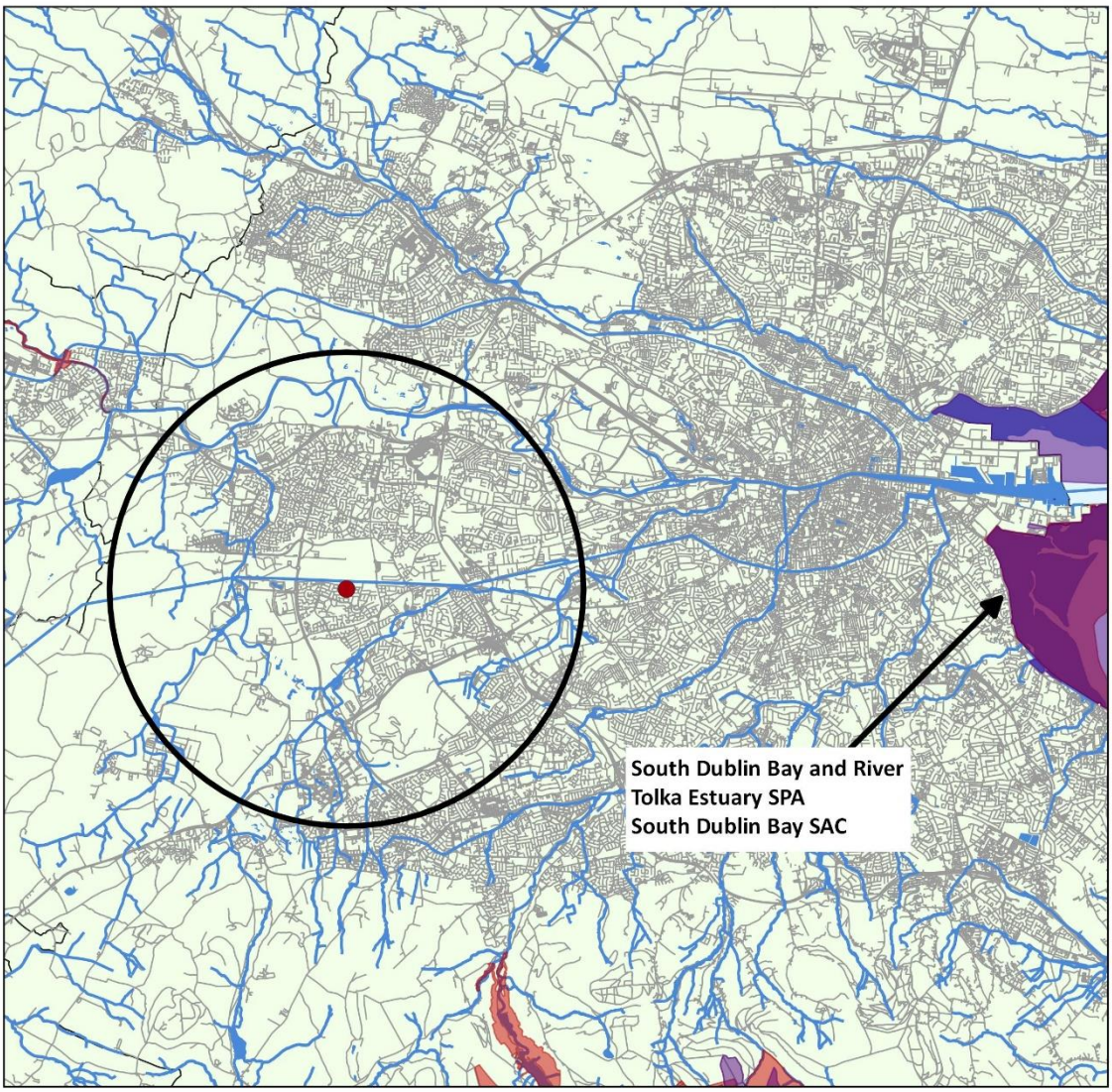
Site location
- Proposed Development Site
- Buffer zone (5km)
- Roads
- Watercourses

Designated sites
- Special Areas of Conservation
- Special Protection Areas



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0 2 4 6 8 10 km

3.2 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 Culture, Heritage and the Gaeltacht has produced detailed conservation objectives for the sites listed in Table 1. They can be viewed on the website of the National Parks and Wildlife Service (http://www.npws.ie/protected-sites), but are not reproduced here in the interests of brevity.

3.3 Identification of potential pathways for indirect impacts

Indirect impacts can occur if there is a viable *pathway* between the *source* (the proposed development site) and the *receptor* (the habitats and species for which a Natura 2000 site has been designated). The most common pathway for impacts is surface water, e.g. if a pollutant reaches a river and is carried downstream into a Natura 2000 site. Other potential pathways are groundwater, air (e.g. airborne dust or sound waves), 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 one hundred metres. An appraisal of potential pathways for impacts on Natura 2000 sites is provided below.

In theory, the Grand Canal, Camac River and / or Griffeen River could provide a hydrological pathway to the River Liffey, and subsequently to the Natura 2000 sites in Dublin Bay. However, the Grand Canal is located more than 100 m from the proposed development site, and any overland runoff would be intercepted by the drainage system along the Lock View Road. The canal is a self-contained hydrological unit that does not receive discharges from surrounding sewers or road drains. The River Camac and Griffeen Rivers are located more than 1 km away. Therefore, none of these waterbodies could provide a potential hydrological pathway to the Natura 2000 sites in Dublin Bay.

All other pathways (groundwater, air, land) can be ruled out due to the distance involved. On this basis, there are no potential pathways for indirect impacts on any of the Natura 2000 sites in Dublin Bay.

4 Assessment of potential impacts

4.1 Direct impacts

The proposed development site is not located within or adjacent to 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, as outlined in Section 3.3, there are no viable surface-water (or other) pathways between the proposed development site and any Natura 2000 sites. Consequently, the risk that pollutants from the construction site could cause significant negative impacts on any Natura 2000 sites is negligible, even in a worst-case scenario and in the absence of standard site-management measures.

Potential changes in water quality (operational phase)

Although detailed drainage proposals have not yet been developed, it is expected that foul water from the proposed development will be discharged to local authority sewers and treated in the Ringsend waste water treatment plant. The plant is currently within capacity and providing a high level of treatment before discharge to Dublin Bay. The receiving waters in Dublin Bay are currently of Good Status.

It is expected that surface-water runoff from hard surfaces will be discharged to local authority surface water sewers along Lock View Road. The discharge points for the surface water sewers is not known, but it is expected to be the Camac River or Griffeen River. Public surface water sewers typically incorporate oil and/or silt interceptors to remove trace quantities of pollutants. On this basis, surface water runoff is considered to be unpolluted, and would not pose a risk to receiving waters.

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

4.3 Potential in-combination effects

As the proposed development will not have any impacts on nearby waterbodies or Natura 2000 sites, there is no risk of in-combination effects with other concurrent developments.

5 Conclusion of Stage 1: Screening Statement

In Section 3.2.5 of *Appropriate Assessment of Plans and Projects in Ireland* (NPWS 2010), it is stated that the first stage of the AA process can have three possible conclusions:

1. **AA is not required**
   Screening, followed by consultation and agreement with the NPWS, establishes that the plan or project is directly connected with or necessary to the nature conservation management of the site

2. **No potential for significant effects / AA is not required**
   Screening establishes that there is no potential for significant effects and the project or plan can proceed as proposed.

3. **Significant effects are certain, likely or uncertain**
   The plan or project must either proceed to Stage 2 (AA), or be rejected.

Having considered the particulars of the proposed development, we conclude that this application meets the second conclusion, because there is no risk of direct or indirect impacts on any Natura 2000 sites. Therefore, with regard to Article 42 (7) of the *European Communities (Birds and Natural Habitats) Regulations 2011*, it can be excluded on the basis of objective scientific information following screening, that the plan or project, individually or in combination with other plans or projects, will have a significant effect on a European site. Therefore, we conclude that Appropriate Assessment is not required.

References

Chartered Institute of Ecology and Environmental Management, 2019. *Guidelines for Ecological Impact Assessment in the U.K and Ireland: Terrestrial, Freshwater and Coastal* (2nd Edition). C.I.E.E.M., Hampshire, England.

Department of the Environment, Heritage and Local Government, 2009. *Appropriate Assessment of Plans and Projects in Ireland.* National Parks and Wildlife Service, DAHG, Dublin, Ireland.

European Commission. 2002. *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*. Office for Official Publications of the European Communities, Luxembourg.