
Screening for Appropriate Assessment

Proposed Residential Development at
Kilhedge Lane, Lusk, Co. Dublin

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of Túath Housing (the applicant), as part of a planning application for a proposed residential development at Kilhedge Lane, Lusk, Co. Dublin. The proposed development will consist of 31 no. residential units in a range of 1-bed and 2-bed designs, as well as a community facility, gardens, parking spaces and services.

In accordance with their obligations under the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477/2011), Fingal County Council must assess whether the proposed development could have 'likely significant effects' on any Natura 2000 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, and consideration of potential source-pathway-receptor links.

A potential hydrological connection to the *Rogerstown Estuary* SAC and SPA via the Palmerstown Stream was considered, but not found to be feasible. There are no other Natura 2000 sites within 5 km of the proposed development site. Therefore, 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 planning authority 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)
- *OPR Practice Note PN01: Appropriate Assessment Screening for Development Management* (Office of the Planning Regulator 2021)
- *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*, 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:

- Plans and specifications provided by the project design team
- 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 (dcenr.maps.arcgis.com), the National Biodiversity Data Centre (<http://maps.biodiversityireland.ie/>), and the Environmental Protection Agency web viewer (gis.epa.ie/EPAMaps/)
- The *Fingal Development Plan 2017 - 2023*, and details of permitted or proposed developments from the local authority's online planning records

All web-based resources were accessed in May 2021.

2 Description of the Project

2.1 Environmental setting

Site location and surroundings

The proposed development site is located in the south-west of Lusk Town. Historical aerial imagery of the site shows that it was in agricultural use until approx. 2005, and was then cleared and used as a compound during the construction of the Chapel Farm estate. Since 2008 it has consisted of a field of amenity grassland, managed by regular mowing. There is a native hedgerow (hawthorn, blackthorn, etc) alongside Kilhedge Lane on the northern boundary of the site.

The site is surrounded by roads on all sides: Kilhedge Lane to the north, and Chapel Farm Road / Mews to the south, east and west. In the broader surroundings, most land to the north, south and east of the site consists of modern housing estates. There are some fields of abandoned agricultural land (now supporting dry meadow or scrub habitat) to the west and north-west, and arable fields further to the west.

Geology and soils

The site is underlain by dark limestone and shale, which is a moderately-productive, locally-important aquifer (Geological Survey of Ireland). Sub-soils are Irish-Sea till, and soils are a fine loam, which is deep and well-drained. The topography of the site is relatively level, with a gentle slope from the north-east (high point) to the south-west (low point). Considering that the underlying bedrock and soils are well drained, and that the site is relatively level, it is expected that most rainfall on the site would percolate to ground rather than flowing into surface-water drainage features.

Hydrology

The closest watercourse (as per the EPA database of rivers and streams) is the Palmerstown Stream, which is located approx. 300 m east of the proposed development site at the closest point. There are no other rivers or streams within 1 km of the site.

It is noted in the EIA screening report that there is an agricultural drainage ditch approx. 130 m south of the site. It does not appear to connect to the Palmerstown Stream, because the stream is culverted at the closest point. However, on a precautionary basis it will be assumed that there is a connection.

The Palmerstown Stream is a small watercourse of only approx. 1m width and approx. 3 km length. It flows south and meets the Rogerstown Estuary approx. 2 km south of the proposed

development site. The Rogerstown Estuary then flows east and meets the coast a further 4.5 km downstream.

Water quality in the Palmerstown Stream was not monitored under the Water Framework Directive Status Assessments 2013 – 2018, but Rogerstown Estuary is of Bad status, and the coastal waters of the Irish Sea are of High status.

2.2 Description of the proposed development

The proposed development will consist of terraced 1-bed and 2-bed houses, with a total of 31 residential units. It will also include a community facility, gardens and public open space. Access will be directly from surrounding roads, and off-street parking will be provided around the site.

Foul water will be discharged to a public foul sewer on Kilhedge Lane and conveyed to the Portrane Waste Water Treatment Works. Surface water from roofs and hard surfaces will be attenuated, passed through a Class 1 Hydrocarbon Separator, and discharged to a storm drain on a surrounding road. Rainwater falling on green areas and permeable paving will percolate to ground in-situ.

2.3 Other nearby developments (potential in-combination effects)

The proposed development site is located in a rural / suburban setting in the south-west of Lusk. In Sheet 6A of the *Fingal Development Plan 2017-2023* the site is located in Zone RS, for which the zoning objective is to “*provide for residential development and protect and improve residential amenity*”.

Planning applications in the vicinity of the site were reviewed on the online planning records of Fingal County Council. Permission was granted in 2017 (planning reference F16A/0577) for a development of 54 no. dwellings to the north-west of the proposed development site, on the far side of Kilhedge Lane. At the time of writing in May 2021, the development has not yet commenced construction. No other live or recently-approved applications were found.

3 Description of Natura 2000 sites

3.1 Identification of Natura 2000 sites within the zone of influence

The proposed development site is not located within or adjacent to any Natura 2000 sites. Potential indirect impacts were considered within a zone of influence of 5km, and along associated watercourses. A map of nearby Natura 2000 sites is shown in Figure 1, and details are provided in Table 1.

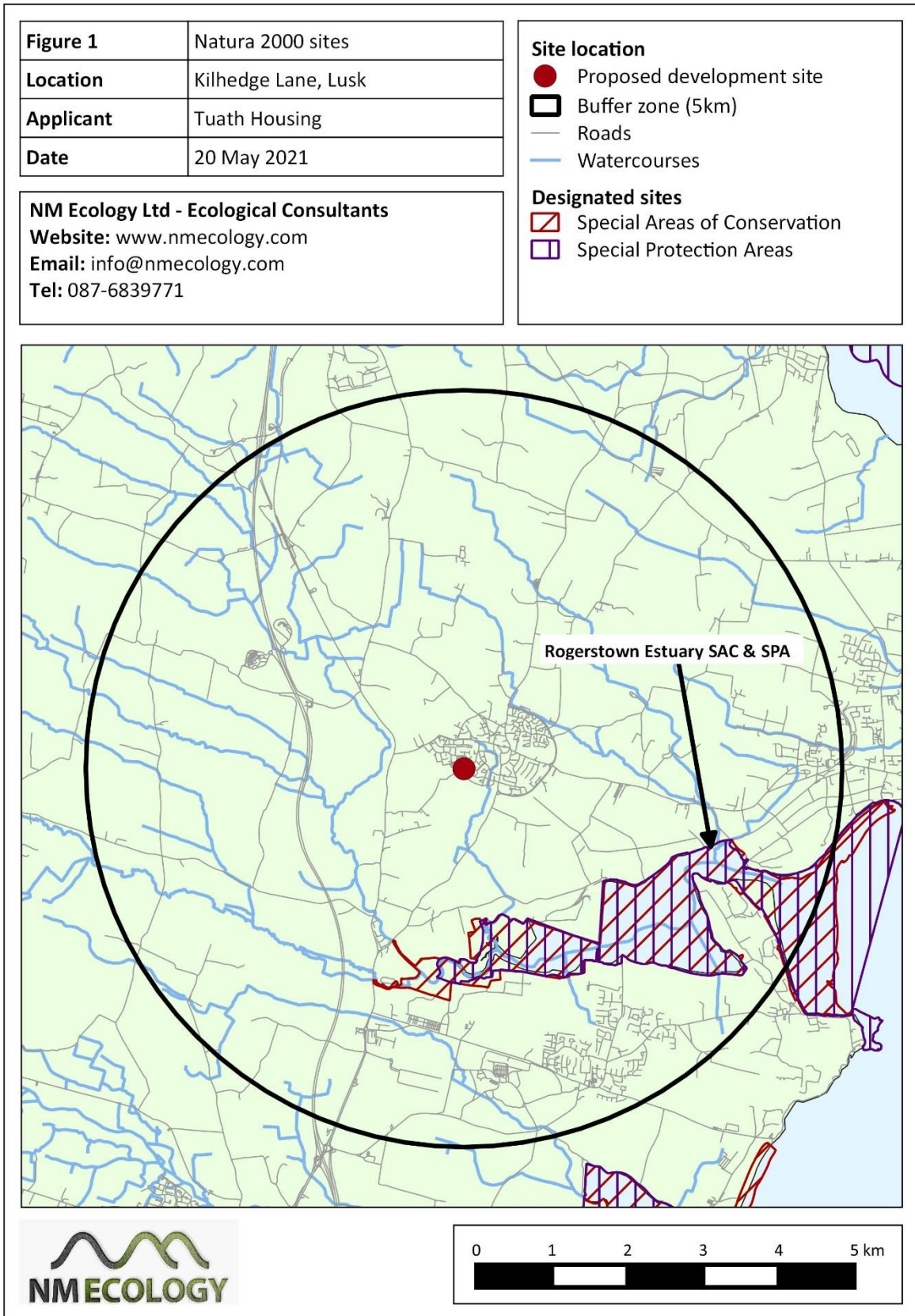


Table 1: Natura 2000 sites within 5 km of the proposed development site

| Site Name | Distance | Qualifying Interests |
|--|------------|--|
| Rogerstown Estuary SAC (site code 208) | 2 km south | Annex I habitats: estuaries, inter-tidal mudflats / sandflats, <i>Salicornia</i> and other annuals colonising mud and sand, Atlantic and Mediterranean salt meadows, shifting dunes, fixed coastal dunes Annex II species: none |
| Rogerstown Estuary SPA (4015) | 2 km south | Habitats: coastal wetlands Special conservation interests: light-bellied brent goose, greylag goose, shelduck, shoveler, oystercatcher, ringed plover, grey plover, knot, dunlin, black-tailed godwit, redshank (wintering populations) |

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 have produced detailed conservation objectives for the Natura 2000 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 is washed into a river and 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.

The *Rogerstown Estuary* SAC and SPA are located approx. 2 km south of the proposed development site, both covering a similar area. The SAC has been designated to protect a range of coastal and intertidal habitats, and the SPA for over-wintering bird populations that feed in intertidal areas. The Palmerstown Stream is the closest watercourse that could potentially provide a surface water pathway to the SAC / SPA. However, there is no pathway linking the proposed development site and the Palmerstown Stream, because the stream is located over 300 m away, there are roads and housing estates separating them, and the site slopes in the opposite direction. There is an agricultural drainage ditch approx. 130 m south of the site that

may also connect to the Palmerstown Stream. However, there are roads and housing estates separating the proposed development site and the drainage ditch, which means that a hydrological pathway to the drainage ditch is not possible. Therefore, surface water can be ruled out as a potential pathway. Groundwater can be ruled out as a pathway due to the 2km distance between the proposed development site and SAC / SPA. Pathways via land and air can also be ruled out due to distance.

In summary, no potential pathways were identified between the proposed development site and the *Rogerstown Estuary* SAC / SPA, or any other Natura 2000 sites.

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 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 surface water (or other) pathways were identified 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)

Foul water from the proposed development will be discharged to a local authority foul sewer and treated in the Portrane Waste Water Treatment Works (WWTW). The WWTW has a PE of 65,000, and incorporates secondary treatment. The plant is currently operating within its ELVs and providing a high level of treatment before discharge to the Irish Sea. It is the responsibility of Irish Water to provide adequate treatment of foul water, and to assess any potential impacts that it may have on the Natura 2000 network. Nonetheless, there is no evidence to suggest that foul water from the proposed development could have any impact on Natura 2000 sites.

During the operation of the proposed development, rainwater will either percolate to ground in green areas (the underlying soils are well-drained), or will be collected in gutters / drains and channelled through oil / silt interceptors into attenuation tanks, and discharged to a local authority storm sewer on an adjacent road. Following treatment, this discharge will be free of pollutants and will not pose a pollution risk to any watercourses.

4.3 Potential in-combination effects

There is a live planning permission for a development of 54 no. dwellings (planning reference F16A/0577) to the north-west of the proposed development site, and it is possible that it may be constructed at the same time as the proposed development. A Screening for Appropriate Assessment report was prepared by McGill Planning as part of the application, in which it was concluded that the development posed no risk of impacts on Natura 2000 sites. The Appropriate Assessment in the Fingal County Council Chief Executive's Order reached the same conclusion.

Considering that the proposed development poses no risk of impact on Natura 2000 sites (in isolation), and that an Appropriate Assessment screening report for the adjacent development reached a similar conclusion, there is not considered to be any risk of in-combination effects.

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 project must either proceed to the second stage of the AA process, 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.

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