
Screening for Appropriate Assessment

Proposed residential development at
Ardrew, Athy, Co. Kildare

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of Kildare County Council (the applicant), as part of a planning application for a site at Ardrew in Athy. The proposed development will involve the clearance of the site and the construction of 73 new residential units.

In accordance with their obligations under the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477/2011), Kildare 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, a map and list of Natura 2000 sites within the potential zone of impact, and consideration of potential source-pathway-receptor links.

Potential indirect impacts on the *River Barrow and River Nore* SAC were considered, but not found to be feasible. No pathways to this or any other Natura 2000 sites were identified. 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 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 (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 *Kildare County Development Plan 2017 - 2023*, and details of permitted or proposed developments from the local authority's online planning records

Desktop data from internet resources was accessed in May 2021, and a site inspection was carried out on 26th May 2021.

2 Description of the Project

2.1 Environmental setting

Site location and surroundings

The Site (referred to throughout this document as ‘the Site’) is located in a suburban / rural setting in the south of Athy town. It covers part of a large arable field, with a hedgerow along the northern boundary.

The eastern boundary of the Site adjoins Fortbarrington Road. The northern boundary is marked by a large residential garden, and the southern boundary by the Ardrew Halting Site and ‘Ardrew Meadows’ housing estate. The arable field extends to the west of the Site. The broader surroundings consist mainly of housing estates and arable land.

Geology and soils

The Site is underlain by limestone (peloidal calcarenitic limestone), which is a regionally-important gravel aquifer. Subsoils are limestone gravel, and soils are a fine loamy drift with limestones (Elton series). On this basis, it is expected that the Site is well drained.

Hydrology

The closest major watercourse in the area is the River Barrow, which is located approx. 600 m east of the Site. A tributary of the Barrow – the Bennetsbridge Stream – is located approx. 400 – 500 m south-west of the Site. The River Barrow flows south through counties Kildare, Carlow, Kilkenny and Waterford, and meets the coast at Waterford Harbour approx. 100 km downstream.

Under the Water Framework Directive status assessments 2013 – 2018, the River Barrow is of Good status upstream of Athy, but of Poor to Moderate status downstream of the town.

2.2 Description of the proposed development

The proposed development will consist of 73 no. residential units, comprising 54 no. houses of 1 – 4 bedrooms, and 18 triplex apartments of 1 – 2 bedrooms. An estate community unit will also be provided. The primary access point will be from Fortbarrington Road, and it will lead to paved internal roads and parking spaces. Communal outdoor space will be provided, and residences will have private gardens. The hedgerow on the northern boundary will be retained and incorporated into the development; all other vegetation will be cleared.

Foul water will be discharged to an Irish Water foul sewer on Fortbarrington Road and conveyed to the Athy Waste Water Treatment Plant. Storm water from new hard landscaping and roofs on site will be directed to an onsite infiltration tank and will discharge to ground.

2.3 Other nearby developments (potential in-combination effects)

The Site is not zoned as part of the current *Kildare County Development Plan 2017 – 2023*, because there was a separate development plan for Athy at the time it was prepared. Under the (expired) *Athy Development Plan 2012 – 2018*, the Site was zoned for ‘new residential’.

Live and recently approved planning applications in the vicinity of the Site were reviewed on the online planning records of Kildare County Council (KCC). Some applications were found for small-scale residential alterations (e.g. construction of a vehicular entrance), but no applications were identified that could potentially give rise to in-combination effects.

3 Description of Natura 2000 sites

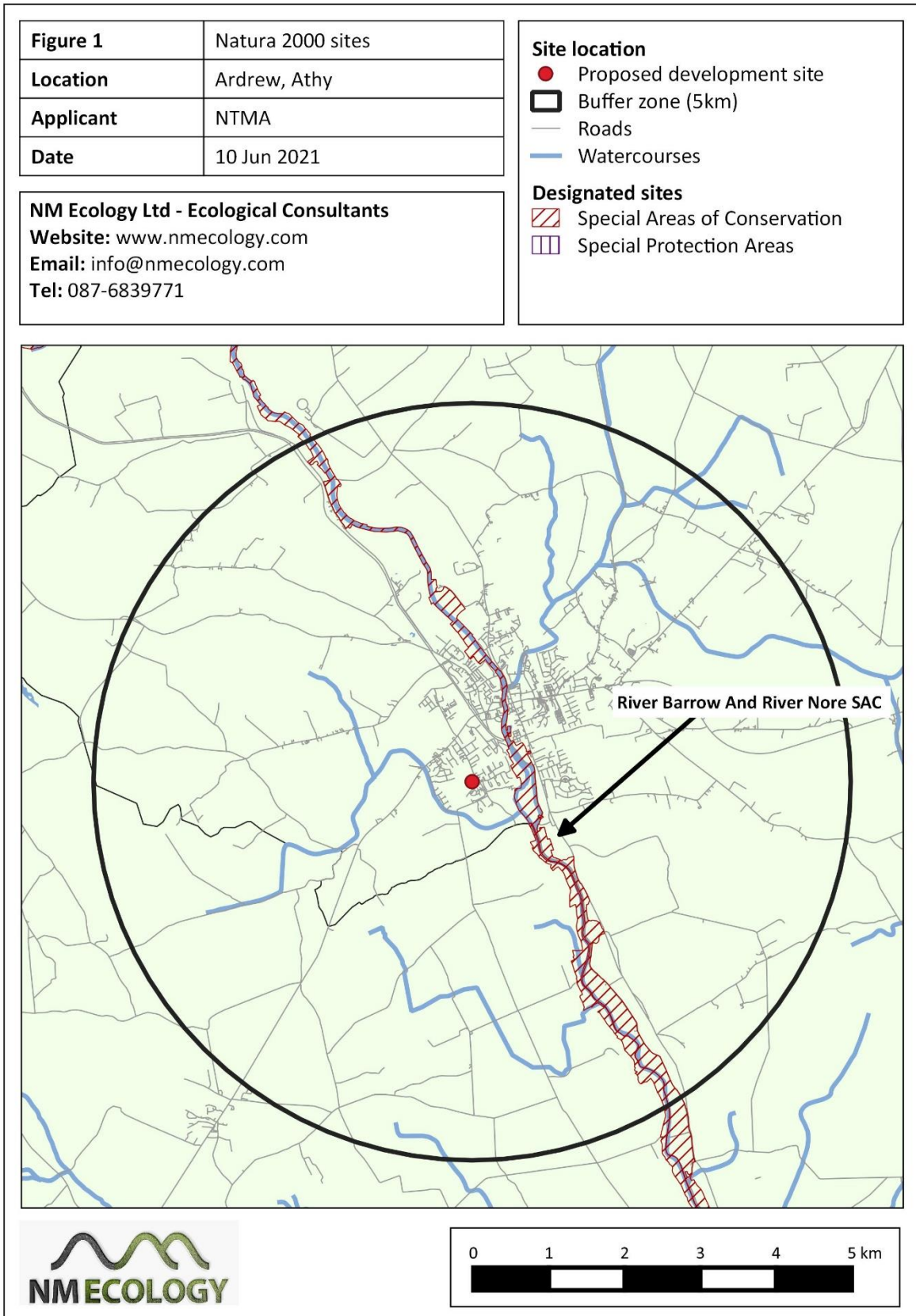
3.1 Identification of Natura 2000 sites within the zone of influence

The Site is not located within or adjacent to any Natura 2000 sites. Potential indirect impacts were considered within a potential zone of influence of 5km¹. The locations of relevant sites are shown in Figure 1, and details are provided in Table 1.

Table 1: Natura 2000 sites within 5 km of the Site

Site Name	Distance	Reasons for designation
River Barrow and River Nore SAC (2162)	0.5 km east	<p>Annex I habitats: Estuaries, Mudflats / sandflats not covered by seawater at low tide, <i>Salicornia</i> and other annuals colonizing mud and sand, Atlantic salt meadows, Mediterranean salt meadows, Water courses of plain to montane levels, European dry heaths, Hydrophilous tall herb fringe communities of plains, Petrifying springs with tufa formation (<i>Cratoneurion</i>), Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i>, Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i></p> <p>Annex II species: Desmoulin's whorl snail <i>Vertigo moulinsiana</i>, Freshwater pearl mussel <i>Margaritifera margaritifera</i>, Nore freshwater pearl mussel <i>Margaritifera durrovensis</i>, White-clawed crayfish <i>Austropotamobius pallipes</i>, Sea lamprey <i>Petromyzon marinus</i>, Brook lamprey <i>Lampetra planeri</i>, River lamprey <i>Lampetra fluviatilis</i>, Twaité shad <i>Alosa fallax</i>, Atlantic salmon <i>Salmo salar</i>, Killarney fern <i>Trichomanes speciosum</i>, Otter <i>Lutra lutra</i></p>

¹ We consider a potential zone of influence of 5km to be proportionate for the Site due to the moderate scale of the proposed development and its suburban / rural setting.



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 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 to the Natura 2000 sites in Table 1 is provided below.

The *River Barrow and River Nore* Special Area of Conservation (SAC) is located approx. 500 m east of the Site. It is a very-large SAC that has been designated to protect a range of riparian and aquatic biodiversity. There are no rivers, streams or drainage ditches linking the Site with the River Barrow or the Bennetsbridge Stream, so a pathway via surface water can be ruled out. Groundwater could theoretically provide a pathway due to the permeability of underlying soils and bedrock, but any pollutants generated at the Site would be filtered by at least 500 m of intervening soils prior to reaching the river, which would reduce their concentrations to negligible levels. Therefore, groundwater is not considered to be a feasible pathway. Pathways via land or air can also be ruled out due to distance.

In summary, no potential pathways were identified to the *River Barrow and River Nore* SAC or any other Natura 2000 site.

4 Assessment of potential impacts

4.1 Direct impacts

The 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, no viable hydrological connections were identified between the Site and any Natura 2000 sites, so there is no pathway for indirect impacts. 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 will be discharged to a local authority foul sewer and conveyed to the Athy Waste Water Treatment Works (WWTW). It is the responsibility of Irish Water to oversee the treatment of foul water in the WWTW, and to ensure that it does not have significant effects on Natura 2000 sites off the Dublin coast.

Storm water from new hard landscaping and roofs on site will be directed to an onsite infiltration tank and will discharge to ground. No groundwater connection was identified between the Site and any Natura 2000 sites, so there is no pathway for indirect impacts.

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

4.3 Potential in-combination effects

No other live or approved planning applications were identified in the surrounding area that could potentially give rise to 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

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