
Screening for Appropriate Assessment

Proposed residential development at
Brady's Field, Old Bawn, Dublin 24

November 2019



NM Ecology Ltd - Consultant Ecologists

276 Harold's Grange Road, Dublin 16

Website: www.nmecology.com

Email: info@nmecology.com

Tel: 087-6839771

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 residential development at Brady's Field, Old Bawn, Dublin 24. The proposed development is a social-housing project that will provide independent living for older persons. It will involve the demolition of a single-storey house and the construction of 12 no. residential units, with associated internal roads, services and landscaped areas.

In accordance with their obligations under the *European Communities (Birds and Natural Habitats) Regulations 2011* (SI 477/2011), South Dublin County Council must assess whether the proposed development could have 'likely significant effects' on any 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, a map and list of Natura 2000 sites within the potential zone of impact, 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, and 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.

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

All surveying and reporting was carried out 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 twelve years of professional experience, including nine 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 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*, CIEEM (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 conducted 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 (<http://gis.epa.ie/EPAMaps/>)
- 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 November 2019.

2 Description of the Project

2.1 Environmental setting

The proposed development site is located in a suburban setting in the south-west of Dublin city. It currently contains an unoccupied single-storey residence and garden, surrounded by amenity grassland.

The Old Bawn Soccer Field is located immediately to the north of the site. 'Old Bawn Road' forms the eastern boundary, and 'Old Bawn Way' the southern boundary. The surrounding area consists of low-density residential developments.

Geology and soils

The underlying bedrock is dark limestone and shale, which is a locally-important aquifer (Geological Survey of Ireland). Sub-soils are limestone till, and soils are a fine loamy drift. The soils and bedrock are well drained, so it is expected that most rainwater falling on the site would percolate to ground rather than flowing over land.

Hydrology

The site is located in the catchment of the River Dodder. The main channel of the River Dodder is located approx. 600 m to the south-east of the site, and the Jobstown Stream (a tributary of the Dodder) is located approx. 500m to the north-west. Both watercourses flow in a north-easterly direction and join the River Liffey approximately 15 km downstream. The Liffey flows east, and reaches the coastal waters of Dublin Bay a further 5 km downstream.

The River Dodder and Jobstown Stream are currently of Poor Status in the vicinity of the site, and of Moderate Status downstream of Rathfarnham (Water Framework Directive status assessments 2010-2018). The transitional waters of the River Liffey and the coastal waters of Dublin Bay are of Good Status.

2.2 Description of the proposed development

The proposed development is a social-housing project that will provide independent living for older persons. It will involve the demolition of the existing single-storey residence, and the construction of 12 no. residential units, including:

- 8 No. 1 Bedroom 1 storey houses (2 person)
- 4 No. 2 Bedroom apartments (4 person)

Road access will be from Old Bawn Way to the south of the site, and a parking area will be provided in the west of the site. Communal paved areas and green spaces will be provided. Most rainwater falling on external areas and permeable paving will percolate to ground. Runoff from roofs and external hard surfaces will be discharged to a local authority storm sewer on Old Bawn Way. Foul water will be discharged to a local authority foul sewer on Old Bawn Way, and conveyed to the Ringsend Waste Water Treatment Plant.

2.3 Other nearby developments (potential in-combination effects)

The proposed development site is included in zone G1 'Open space / park' of the South Dublin County Council Development Plan 2016 - 2022, for which the planning objective is "*To preserve and provide for open space and recreational amenities*". The surrounding area is in zone R2 'Existing residential', for which the objective is "*To protect and/or improve residential amenity*". All of these areas are well settled, so it is expected that any future development in the area would be small-scale replacements or renovations, and would be similar in character to the existing developments.

Details of live and recently-approved planning applications in the vicinity of the site were obtained from the South Dublin County Council online planning portal. All were for small-scale developments such as residential extensions and retentions. No significant developments were identified that could lead to potential in-combination effects.

3 Description of Natura 2000 sites

3.1 Identification of Natura 2000 sites within the zone of impact

The proposed development site is located within 5km of one Natura 2000 site: the Glenasmole Valley SAC (Figure 1). There is also a distant hydrological connection via the River Dodder and River Liffey to four 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.

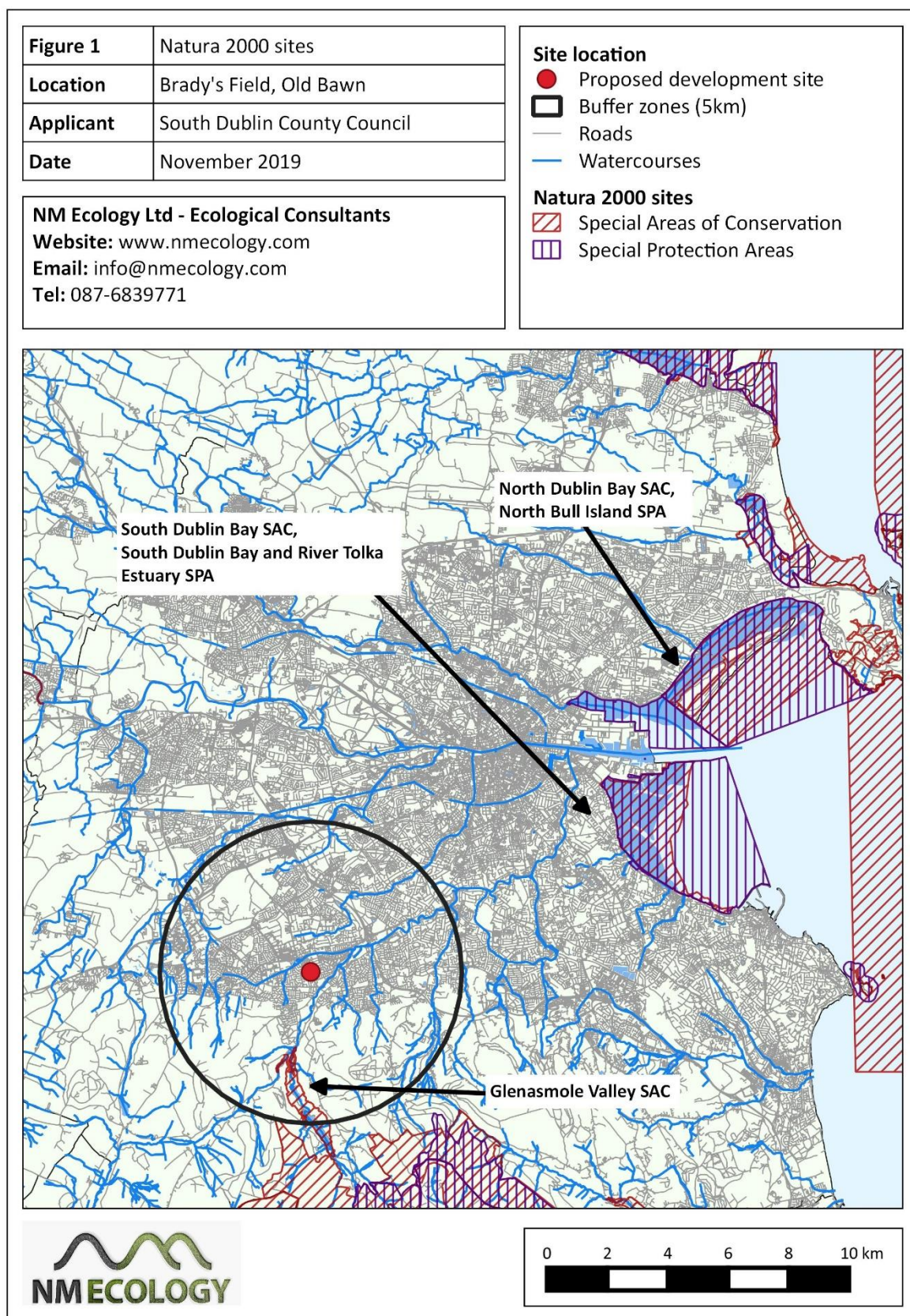


Table 1: Natura 2000 sites of relevance to the proposed development site

Site Name	Distance	Qualifying Interests
Glenasmole Valley SAC (site code 1209)	2.5 km south	Annex I habitats: semi-natural dry grasslands and scrubland facies on calcareous substrates, <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils, petrifying springs with tufa formation Annex II species: none
South Dublin Bay and River Tolka Estuary SPA (site code 4024)	20 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)	20 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 <i>Salicornia</i> and other annuals), <i>Spartina</i> swards, salt marshes, annual vegetation of drift lines, embryonic shifting dunes, white dunes, grey dunes, dune slacks Annex II species: petalwort <i>Petalophyllum ralfsii</i>
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

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 Arts, 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 impact pathways

Indirect impacts on Natura 2000 sites can only occur if there is a viable pathway between the source (the proposed development site) and the receptor (the habitats and species for which a site has been designated). The most common pathway for impacts is surface water, e.g. if a pollutant is washed into a river, carried downstream, and subsequently reaches aquatic habitats or species. 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 the Natura 2000 sites listed in Table 1 is provided below.

The Glenasmole Valley SAC is located 2.5 km to the south of the proposed development site. It is within the River Dodder catchment, but is upstream of the proposed development, so there is no risk that any waterborne materials could reach the SAC. Similarly, the SAC is at a higher elevation than the proposed development site, so groundwater would not provide a viable pathway. The distances involved are also too great for impacts via air or land pathways. Therefore, all potential pathways to this SAC can be screened out.

The River Dodder and Jobstown Stream (and subsequently the River Liffey) could potentially provide a hydrological pathway between the proposed development site and four Natura 2000 sites in Dublin Bay. However, there are no direct surface water connections between the proposed development site and the River Dodder / Jobstown Stream, because any overland flow would be intercepted by intervening roads and channelled into storm sewers. In addition, there is more than 20 km of intervening watercourse between the proposed development site and Dublin Bay, so any pollutants would be reduced to negligible concentrations before they could reach the Natura 2000 sites. Therefore, this is not considered to be a viable hydrological connection, and all potential pathways for indirect impacts can be screened out.

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

4 Assessment of potential impacts

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 usually generate a range of fine sediments, and can occasionally involve accidental spills of oil or other toxic chemicals, which can be harmful to aquatic / marine habitats and species. However, no viable pathways were identified by which any such pollutants could reach 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)

All surface-water runoff from hard surfaces will be discharged to a local authority storm drain on Old Bawn Way. The storm drain will discharge to a local watercourse (a tributary of the River Dodder) via an oil and/or silt interceptor. As noted above, the River Dodder does not provide a viable pathway to any Natura 2000 sites.

All foul water from the proposed development will be discharged to a local authority sewer 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.

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

Disturbance of fauna (all phases)

There are no Natura 2000 sites within 2 km of the proposed development. Therefore, there is no risk that the development could cause disturbance of any fauna in these sites.

4.3 Potential in-combination effects

As outlined in in Section 2.3, there are no developments in the surrounding area that could pose a risk of in-combination effects on Natura 2000 sites.

5 Conclusion of AA Stage 1: Screening Statement

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

Chartered Institute of Ecology and Environmental Management, 2019. *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. 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.