Screening for Appropriate Assessment

Proposed residential development at 'Capri', Whitechurch Road, Rathfarnham, Dublin 16

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Executive Summary

This *Screening for Appropriate Assessment* report has been prepared by NM Ecology Ltd on behalf of Gerard O'Connor as part of a planning application for a residential development at the 'Capri' property on Whitechurch Road, Rathfarnham, Dublin 16. The proposed development will involve the demolition of a derelict residence, and the construction of 4 no. replacement residences, with associated paved areas, landscaping and services.

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 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 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. 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

All surveying and reporting was carried out by Nick Marchant, the principal ecologist of NM Ecology Ltd. 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 developments.

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.

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* (Chartered Institute of Ecology and Environmental Management, 2018)

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 May and June 2019.

2 Description of the Project

2.1 Environmental setting

The site is located in the southern suburbs of Dublin city. It consists of a small derelict bungalow, some outbuildings / sheds, and an overgrown garden. The eastern boundary is formed by the Whitechurch Stream and Whitechurch Road, the southern boundary by a car dealership, and the northern and western boundaries by housing estates.

Geology and soils

The underlying bedrock is 'dark limestone & shale', which is a locally-important aquifer. Subsoils are limestone gravels, and soils are deep and well-drained, potentially with some alluvium along the river channel.

Hydrology

The Whitechurch / Kilmashogue Stream runs along the eastern boundary of the site, flowing from south to north. The channel width is approx. 3 – 4 m, and it was approx. 0.2 m deep at the time of survey. The channel is open, but it is quite overgrown with herbaceous vegetation. Several sections of the watercourse to the north and south of the development have been culverted. The stream is currently of moderate status (Water Framework Directive Status Assessments 2010-2015), due to poor biological and invertebrate status.

The stream flows north and meets the River Dodder at Rathfarnham, approx. 1.4 km north of the proposed development site. The River Dodder then flows north-east and meets the River Liffey at Grand Canal Dock a further 8.5 km downstream. The River Dodder is also of moderate status downstream of its confluence with the Whitechurch / Kilmashogue Stream.

2.2 Description of the proposed development

The site currently contains a derelict bungalow, which has suffered extensive fire damage and vandalism. There is an overgrown garden to the south of the house.

The proposed development will involve the demolition of the existing residence, and its replacement with 4 no. semi-detached residences. Access will be from Whitechurch Road on the eastern boundary of the site, which will lead to a communal parking area. An entrance bridge will be constructed over the Whitechurch Stream at the road access point, and a new flood defence wall will be constructed along the eastern boundary. The houses will have private gardens, which will incorporate some retained trees. Foul water and surface water will be discharged to local authority sewers on Whitechurch Road.

2.3 Other nearby developments (potential in-combination effects)

The proposed development site is located in a suburban setting in Rathfarnham. It is included in zone RES: *Existing Residential* of the South Dublin County Development Plan 2016 – 2022, for which the planning objective is "*to protect and/or improve residential amenity*". The surrounding area is characterised by long-established housing estates, and is not subject to significant development pressure.

Live and recently-approved planning applications in the vicinity of the site were reviewed on the online planning records of South Dublin County Council. Planning permission has been granted for two developments to the south of the site: one for the alteration of an existing car dealership (planning reference SD16A/0007), and the second for the demolition of a former filling station and construction of a small residential development (planning reference SD16A/0247). All other nearby planning applications were for small-scale developments such as residential extensions.

In summary, two developments were identified that could potentially act in-combination with the proposed development to increase the scale of potential ecological impacts, if developments were constructed concurrently. The potential for cumulative impacts is addressed in the impact assessment.

3 Description of Natura 2000 sites

3.1 Identification of Natura 2000 sites within the zone of influence

The proposed development is not located within or adjacent to any Natura 2000 sites. Potential indirect impacts were considered within a potential zone of influence of 2 km, and along associated watercourses. A map of sites is provided in Figure 1, and details of relevant sites are provided in Table 1.

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 individual Natura 2000 sites. 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.

Figure 1	Natura 2000 sites
Location	Capri, Whitechurch Road
Applicant	Gerard O'Connor
Date	04-06-2019

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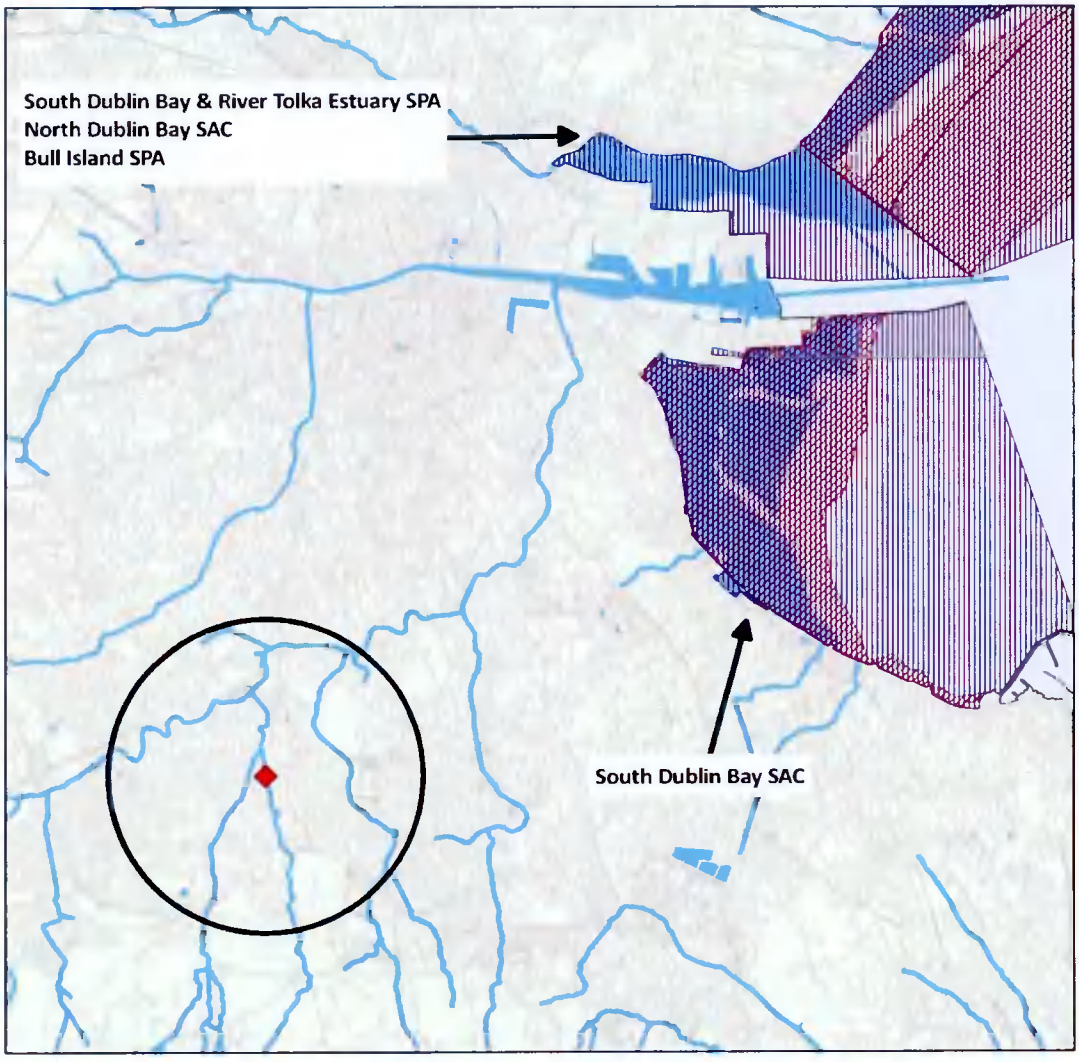
Site location
- Proposed development site
- Buffer zone (2km)
- Roads
- Watercourses

Natura 2000 sites
- Special Areas of Conservation
- Special Protection Areas



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0 1 2 3 4 5 km

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)	15km 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)	15 km downstream	**Annex I habitats:** inter-tidal mudflats / sandflats **Annex II species:** none
North Dublin Bay SAC (206)	15 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)	15 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

3.3 Identification of potential impact pathways

Indirect impacts on a Natura 2000 site 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, for example 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 referenced in Table 1 is provided below.

The Whitechurch Stream (and subsequently the River Dodder and River Liffey) could potentially provide a distant hydrological pathway between the proposed development site and four Natura 2000 sites in Dublin Bay. If this was to occur, pollutants would have to be carried overland from the proposed development site into the river, and then approx. 15 km downstream before reaching the designated sites. The distances involved are too great for impacts via groundwater, air or land pathways. On this basis, surface water is considered to be pathway to the Natura 2000 sites, but all other potential pathways can be screened out.

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 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. The Whitechurch Stream (and subsequently the River Dodder and River Liffey) provides a hydrological connection between proposed development and four Natura 2000 sites in Dublin Bay. However, it is noted that the hydrological connection is rather tenuous, as any pollutants would have to travel through at least 15 km of intervening watercourse before they could reach Dublin Bay.

Considering the small scale of the proposed development and the dilution effects of the intervening 15 km of river and estuarine waters, it is expected that any pollutants accidentally released into the river during construction works would be reduced to negligible concentrations before they could reach any of the Natura 2000 sites in Dublin Bay. It is noted that best-practice pollution-prevention measures will be implemented during construction works, although they have not been taken into account in this impact assessment (as per the judgement of the Court of Justice of the European Union in the 'People Over Wind and Sweetman v Coillte Teoranta' case C-323/17).

Consequently, it can be concluded that the risk that pollutants could be released in high-enough quantities and concentration to cause 'likely significant impacts' on the qualifying interests of the Natura 2000 sites in Dublin Bay would be negligible, even in a worst-case scenario and in the absence of standard site-management measures.

Potential changes in water quality (operational phase)

All foul water from the proposed development will be discharged to a local authority foul 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. It is the responsibility of the local authority to provide adequate treatment of foul water, and to assess any potential impacts that it may have on the Natura 2000 network.

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

discharged to a local authority storm sewer. Surface water is considered to be free of pollutants and will not pose a pollution risk to the watercourse.

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

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 developments.

5 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, 2016. *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.