Natura Impact Statement for Strategic Housing Development at Auburn, Malahide, County Dublin

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The Purpose of this document

This document provides information to allow An Bord Pleanála to carry out an Appropriate Assessment of the proposed project. This document will assess whether adverse effects to the integrity of the Natura 2000 network are likely to occur as a result of granting planning permission in accordance with Article 6(3) of the Habitats Directive and the Planning and Development (Amendment) Acts. It will determine whether mitigation measures are required to ensure that negative effects can be avoided to the Natura 2000 network.

This report is based on a separate Screening Report for AA which has been prepared by Openfield Ecological Services and which concluded that significant effects to the Baldoyle Bay SAC and SPA could not be ruled out.

Having screened in Baldoyle Bay SAC and SPA [CONFIRM] in the AA Screening Report, the purpose of this NIS is to assist the Board in carrying out Stage II Appropriate Assessment in accordance with Section 177V of the Planning and Development Act 2000 and the relevant criteria in case-law, as summarised by the High Court in Kelly v An Bord Pleanála [2014] IEHC 400 and Connelly v An Bord Pleanála [2018] IESC 131.

In Kelly, the High Court held that Section 177V(1) must be construed so as to give effect to Article 6(3) of the Habitats Directive, and hence, an appropriate assessment carried out under the section must meet the requirements of Article 6(3) as set out in the CJEU case law. If an appropriate assessment is to comply with the criteria set out by the CJEU in the cases referred to, then it must, in my judgment, include an examination, analysis, evaluation, findings, conclusions and a final determination.'

Finlay Geoghegan J. went on to summarise what is required in order to carry out an AA in compliance with EU law and noted that the appropriate assessment, or a stage two assessment, will only arise where, in the stage one screening process, it has been determined (or it has been implicitly accepted) that the proposed development meets the threshold of being considered likely to have significant effects on a European site. Where that is the position, then, in accordance with the preceding case law, the appropriate assessment to be lawfully conducted in summary:

(i) Must identify, in the light of the best scientific knowledge in the field, all aspects of the development project which can, by itself or in combination with other plans or projects, affect the European site in the light of its conservation objectives. This clearly requires both examination and analysis.

(ii) Must contain complete, precise and definitive findings and conclusions and may not have lacunae or gaps. The requirement for precise and definitive

findings and conclusions appears to require analysis, evaluation and decisions. Further, the reference to findings and conclusions in a scientific context requires both findings following analysis and conclusions following an evaluation each in the light of the best scientific knowledge in the field.

(iii) May only include a determination that the proposed development will not adversely affect the integrity of any relevant European site where upon the basis of complete, precise and definitive findings and conclusions made the Board decides that no reasonable scientific doubt remains as to the absence of the identified potential effects.'

This was adopted in *Connelly* where the Supreme Court held that the overall conclusion which must be reached before the Board has jurisdiction to grant a planning consent after an AA is that all scientific doubt about the potential adverse effects on the sensitive area have been removed. However, as a matter of EU law, there is a separate obligation to make specific scientific findings which allow that conclusion to be reached.

The decision in *Connelly* also noted that the analysis in *Kelly* shows that there are four distinct requirements which must be satisfied for a valid AA decision which is a necessary pre-condition to a planning consent where an AA is required. First, the AA must identify, in the light of the best scientific knowledge in the field, all aspects of the development project which can, by itself or in combination with other plans or projects, affect the European site in the light of its conservation objectives. Second, there must be complete, precise and definitive findings and conclusions regarding the previously identified potential effects on any relevant European site. Third, on the basis of those findings and conclusions, the Board must be able to determine that no scientific doubt remains as to the absence of the identified potential effects. Fourth and finally, where the preceding requirements are satisfied, the Board may determine that the proposed development will not adversely affect the integrity of any relevant European site.

It is respectfully submitted that this NIS therefore aids in the decision-making process and includes sufficient information to allow the Board to complete a lawful AA.

It should be noted that there is no prescribed format for an NIS. This report therefore follows the generally accepted format for AA provided by the European Commission.

In addition, it should be noted that in Case C-461/17, Holohan v An Bord Pleanála, the European Court held that Article 6(3) of the Habitats Directive must be interpreted as meaning that an ‘appropriate assessment’ must, on the one hand, catalogue the entirety of habitat types and species for which a site is protected, and, on the other, identify and examine both the implications of the proposed project for the species present on that site, and for which that site has not been listed, and the implications for habitat types and species to be found outside the boundaries of that site, provided that those implications are liable to affect the conservation objectives of the site.

It is respectfully submitted that this NIS meets that threshold.

Methodology

The methodology used for this assessment is set out in a document prepared for the Environment DG of the European Commission entitled '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' (Oxford Brookes University, 2001). Chapter 3, part 1, of this document deals specifically with screening while Annex 2 provides the template for an AA report to be used.

In accordance with this guidance, the following methodology has been used to produce this screening statement:

Step 1: Information Required
This assesses whether adequate information is available in order to complete the AA or if, taking the Precautionary Principle into account, additional data are required.

Step 2: Impact Prediction
This identifies the likely impacts that may arise as a result of the project.

Step 3: Conservation Objectives
An assessment of whether or not there will be adverse effects on the integrity of the Natura 2000 site as defined by the conservation objectives and status of the site.

Step 4: Mitigation Measures
Mitigation through avoidance of adverse effects must be proposed. Where it is likely that significant effects will remain despite mitigation then a full assessment of alternative options must be undertaken and an application for the project to proceed made under Article 6(4) of the Habitats Directive: Imperative Reasons of Overriding Public Interest.

The steps are compiled into an AA report, a template of which is provided in Appendix II of the EU methodology.

Reference is also made to guidelines for Local Authorities from the Department of the Environment, Heritage and Local Government (DoEHLG, 2009).

A full list of literature sources that have been consulted for this study is given in the References section to this report while individual references are cited within the text where relevant.

AA Report (Natura Impact Statement) as per Annex 2 of EU methodology:

Step 1 – Information Required

Describe the elements of the project (alone or in combination with other projects or plans) that are likely to give rise to significant effects on the Natura 2000 site (from the screening report prepared by Openfield)

It is planned to construct a Strategic Housing Development on the site at Auburn, Malahide, Dublin. The site is currently occupied by open grazing land and woodland. The site location is shown in figures 1 and 2.

The AA screening report provided follows accepted methodologies. It highlights the fact that the site is within the natural hydrological catchment of the Baldoyle Bay SAC (site code: 0199) and SPA (site code: 4016), although physically separated from it.

Foul effluent from the proposed development will be sent to the wastewater treatment plant at Ringsend in Dublin. Emissions from the plant are currently not in compliance with the Urban Wastewater Treatment Directive. In April 2019 Irish Water was granted planning permission to upgrade the Ringsend plant.

Contractors for the upgrade work to the plant comprising a new 400,000 population equivalent extension were appointed in February 2018. The work on this 25% increase in capacity is scheduled to be completed by 2021. In addition, it is stated that Irish Water is working on infrastructure to achieve a population equivalent of two million by the end of 2022. The upgrade to use of aerobic granular sludge (which allows for a greater amount of wastewater to be treated to a higher standard within the current plant) and other phased upgrades to achieve a population equivalent of 2.4 million is expected to be completed by 2027.

Water for domestic purposes will be sourced from a mains supply which originates in a reservoir along the River Liffey at Leixlip. This reservoir is not part of, or upstream of, any SPA or SAC along that river. The proposed site layout is shown in figure 3.

Inert construction and demolition waste will be removed by a licenced contractor and disposed of in accordance with the Waste Management Act.

Currently there is no attenuation of rain run-off and surface water is likely to percolate to the ground or follow surface pathways to the Hazelbrook Stream. In accordance with the Greater Dublin Strategic Drainage Study this project will incorporate sustainable drainage systems (SuDS).

There are no point air emissions from the site while some dust and noise can be expected during the construction phase.

Step 2 - Impact Prediction

The AA screening report describes the elements of the project which “have the potential to cause environmental impact”. These are:

Habitat Loss
This development will not result in the loss of semi-natural habitats connected to Natura 2000 sites.

Habitat disturbance
No habitats will be disturbed within or directly connected to Natura 2000 sites. This development is will not significantly increase recreational pressure on Malahide Estuary as it lies a significant distance to accessible areas likely to be used by birds.

The lands themselves are not suitable for regularly occurring populations of wetland or wading birds which may be associated with Natura 2000 sites at Baldoyle Estuary. These birds are predominantly associated with coastal and intertidal habitats however some species utilise inland amenity grassland sites for feeding. There is no amenity grassland on the development site. There are no habitats for such species on the development site.

Pollution during construction
During the construction phase there will be extensive earth works and some sediment may enter the drainage ditches, entrained in rain run-off. While sediment can be detrimental to the ecological quality in rivers, the same is not the case for estuaries and tidally influenced habitats, which rely on vast quantities of sediment for their functioning.

Nevertheless, extensive works are planned in close proximity to open water courses and using a precautionary approach, the potential for large quantities of silt or other construction pollutants to be washed downstream means that significant effects to the Baldoyle Bay SAC and SPA cannot be ruled out.

Pollution during normal operation
The Ringsend plant is licenced to discharge treated effluent by the EPA (licence number D0034-01) and is managed by Irish Water. It treats effluent for a population equivalent (P.E.) on average of 1.65 million however weekly averages can spike at around 2.36 million. This variation is due to storm water inflows during periods of wet weather as this is not separated from the foul network for much of the older quarters of the city, including at the subject site. The Annual Environmental Report for 2018, the most recent available, indicated that there were a number of exceedences of the emission limit values set under the Urban Wastewater Treatment Directive and these can be traced to pulse inflows arising from wet weather. In April 2019 Irish Water was granted planning permission to upgrade the Ringsend plant. This will see improved treatment standards and will increase network capacity by 50%.

While the issues at Ringsend wastewater treatment plant are being dealt with in the medium term evidence suggests that some nutrient enrichment is

benefiting wintering birds for which SPAs have been designated in Dublin Bay (Nairn & O'Hallaran eds, 2012). No negative impacts to Natura 2000 sites can arise from the additional loading arising from this development as there is no evidence that negative effects are occurring to SACs or SPAs from water quality.

Abstraction

There is no SAC or SPA within the zone of influence of the abstraction point along the River Liffey at Leixlip.

Since SACs and SPAs in Dublin Bay are below the high tide mark effects to these areas cannot occur as a result of abstraction from the Liffey. They are therefore considered to be beyond the zone of influence of this project.

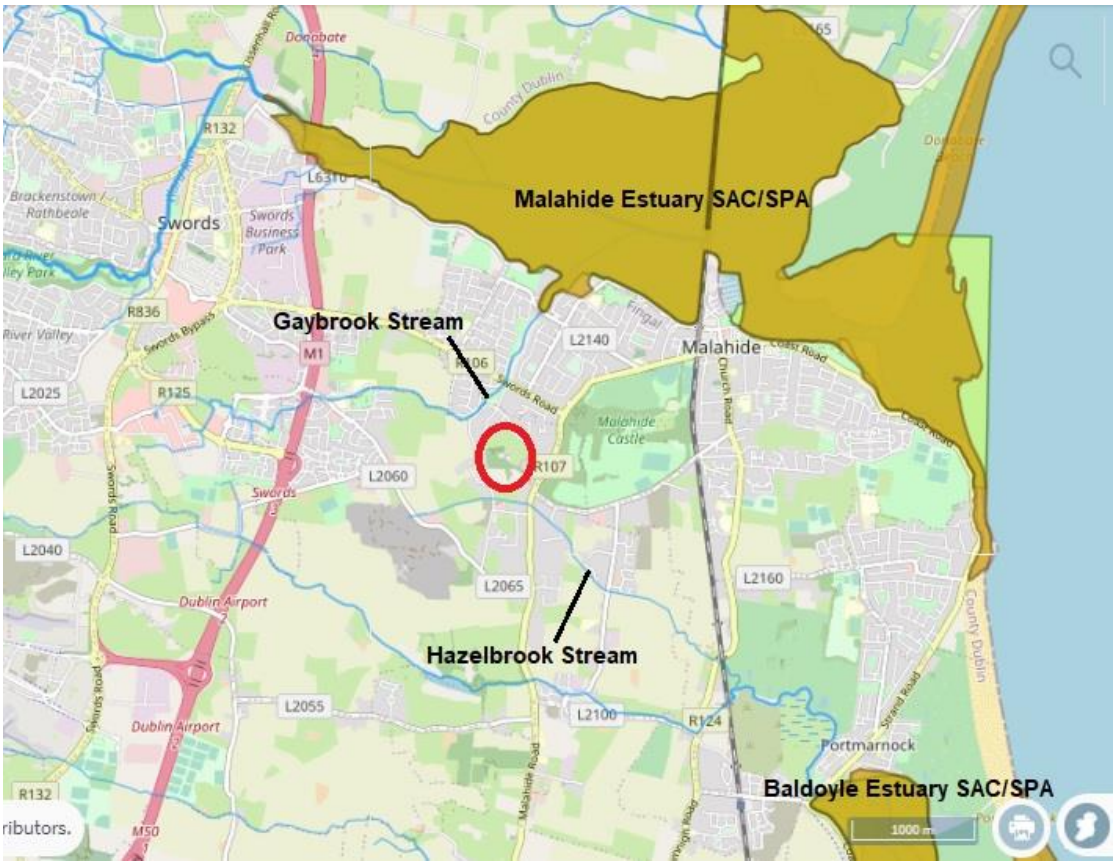

Figure 2 – Site location (red circle). The SACs are shown in tan while SPAs are shown in lime green. There is considerable overlap between SACs and SPAs in these areas (from www.epa.ie).

An assessment of the effects of the project 'in combination' with other potential sources is presented.

This development can be considered within the context of the broader urbanisation of lands that is accommodating the expansion of Dublin city and its hinterland. This is planned for under the Fingal County Development Plan 2017-2023. This type of urban expansion has been associated with a loss of habitat however the aforementioned plans envisage the preservation of 'green infrastructure' to preserve or augment local ecological features. A growing

population is placing pressure on wastewater treatment facilities however a recent upgrade to the Swords wastewater treatment plant as well as the granting of planning permission in 2019 for a 500,000 P.E. wastewater treatment plant as Clonshaugh will provide for future development. An AA screening study for the Fingal CDP found that significant effects to Natura 2000 sites were not expected to arise from its implementation.

The cumulative effects of this type of urban growth can arise from replacing permeable ground with hard surfaces. This can result in increased risk of flooding and deterioration of water quality, primarily from the run-off of particulate matter and hydrocarbon residues (Mason, 1996). To combat this effect the Greater Dublin Strategic Drainage Study was finalised in 2005. This aims to ensure that new developments integrate sustainable drainage systems (SUDS) to maintain natural, or 'green field' rates of surface water run-off while also improving water quality in rivers. This development includes SUDS techniques that will maintain current levels of water quantity and quality.

The Water Framework Directive sets out to attain 'good ecological status' of all water bodies. A second River Basin Management Plan was published in 2018 which identifies 190 'priority areas for action' where resources are to be focussed over the 2018-2021 period.

There are no projects or plants which could act in combination with the current proposal to result in significant effects to Natura 2000 sites.

Figure 2 – Site boundary and habitats

Figure 3 – Site layout

Step 3 – Conservation Objectives
Set out the conservation objectives of the site

Site-specific conservation objectives for this SAC have been set out (NPWS, 2012) and these are summarised here.

Salicornia mudflats (1310)
Maintain habitat area and distribution including physical structure (sediment supply, creeks and pans, flooding regime). Maintain vegetation structure as measured by vegetation height, vegetation cover, typical species and sub-communities. Absences of the invasive *Spartina anglica.*

Atlantic/Mediterranean Salt Meadows (1330/1410)
Maintain habitat area and distribution including physical structure (sediment supply, creeks and pans, flooding regime). Maintain vegetation structure as measured by vegetation height, vegetation cover, typical species and sub-communities. Absences of the invasive *Spartina anglica.*

Mudflats (code 1140)
Permanent habitat area stable or increasing (estimated at 409 hectares); subject to natural processes.

Birds (similar for all species)
Long term population trend stable or increasing; there should be no significant decrease in the numbers or range of areas used by waterbird species, other than that occurring from natural patterns of variation

Describe how the project will affect key species and key habitats. Acknowledge uncertainties and any gaps in information.

Hydrological pathways exist to the Baldoyle Bay SAC and SPA. Conservation objectives have been set to maintain the area of habitat for each of the qualifying interests. Given the potential for very large quantities of sediment and other construction pollutants to enter the Hazelbrook Stream, it is considered that significant effects to habitat areas cannot be ruled out.

Any effects to the habitats in the SAC may have knock-on effects to the availability of food for birds using the SPA. Here, the conservation objective is to maintain stable populations and available ranges for all birds. Given the potential effects from pollution as described above, significant effects to the SPA cannot be ruled out.

Describe how the integrity of the site (determined by structure and function and conservation objectives) is likely to be affected by the project

Very large quantities of sediment could increase deposition beyond normal levels, thereby affecting the areas of habitats for which the SAC has been designated. Construction pollutants such as concrete or hydrocarbons could affect habitat functioning through toxic effects to invertebrate life.

Any effect to the availability of prey items (invertebrates living within the intertidal sediments) would reduce the range of birds using the SPA.

Step 4 - Mitigation

Describe what mitigation measures are to be introduced to avoid, reduce or remedy the adverse effects on the integrity of the site. Acknowledge uncertainties and any gaps in information.

- Pollution prevention during construction

Construction will follow guidance from Inland Fisheries Ireland (IFI, 2016) for the protection of fish habitat. This will include the erection of a robust silt curtain (or similar barrier) along open drainage ditches to prevent the ingress of silt to the Hazelbrook Stream. Water leaving the site will pass through an appropriately-sized silt trap or settlement pond so that only silt-free run-off will leave the site.

Dangerous substances, such as oils, fuels etc., will be stored in a bunded zone. Emergency contact numbers for the Local Authority Environment Section, Inland Fisheries Ireland, the Environmental Protection Agency and the National Parks and Wildlife Service will be displayed in a prominent position within the site compound. These agencies will be notified immediately in the event of a pollution incident.

Site personnel will be trained in the importance of preventing pollution and the mitigation measures described here to ensure same.

A silt curtain or similar barrier will be erected along the drainage ditch to the east of the site and will remain in place for the duration of works.

The drainage ditch to the north is to be culverted as part of work and this will be done ‘in the dry’. In other words, it will be dammed at either end so that works will be done with no scouring of silt or sediment. Water will be pumped around the works area where necessary.

The site manager will be responsible for the implementation of these measures. They will be inspected on at least a daily basis for the duration of works, and a record of these inspections will be maintained.

These measures have been incorporated into a preliminary Construction Management Plan prepared by Waterman Moylan which is included as an addendum to this NIS.

The Assessment of Significance of Effects – Conclusion of Stage 2

This report contains an analysis of the proposed project and its relationship with areas designated under the Habitats and Birds Directives. Pathways exist between the development site and two such areas and these have been described in detail. Following this analysis, it is concluded that significant effects to the Baldoyle Bay SAC could not be ruled out. Specifically, this may arise from the impact to intertidal habitats from pollution during the construction phase. Arising from this assessment, mitigation has been proposed. With the implementation of these measures adverse effects to the integrity of the SAC will not occur. This conclusion is based on best scientific knowledge.

References

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