

**Broomfield SHD,  
Back Road, Broomfield, Malahide, Co. Dublin  
Natura Impact Statement**



**FINAL REPORT**

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## **1. INTRODUCTION**

### **1.1 Background**

*Faith Wilson Ecological Consultant* was commissioned by Birchwell Developments to prepare a Natura Impact Statement for lands proposed for development as part of the Broomfield SHD, at Back Road, Broomfield, Malahide, Co. Dublin.

This report contains the information required to assist the consenting authority (in this case An Bord Pleanála), to undertake the Appropriate Assessment for this development.

### **1.2 Legislative Background**

The aim of the European Habitats Directive (Council Directive 92/43/EEC on the conservation of wild habitats and of wild fauna and flora) is to create a network of protected wildlife sites across Europe, which are to be maintained at a favourable conservation status.

Each member state must designate their most important natural areas as Special Areas of Conservation (SAC). The Directive specifies the scientific criteria on the basis of which SAC sites must be selected and very strictly curtails the grounds that can be used as justification for damaging a site. The network of sites is referred to as the NATURA 2000 network and includes SACs (Special Areas of Conservation) for protected habitats and species and SPAs (Special Protection Areas) for birds, which are designated under the European Birds Directive (Council Directive 79/409/EEC as amended by Directive 2009/147/EC).

It is a requirement of the Habitats Directive ((92/43/EEC) that the competent consenting authority (which in this instance is An Bord Pleanála) must ensure that a proposal, which is likely to have a significant effect on an SAC or SPA, is authorised only to the extent that the authority is satisfied it will not adversely affect the integrity of the Natura 2000 site and that an appropriate assessment of the implications of the development for the conservation status of the site is undertaken.

The European Parliament, in a communication to the European Council in September 2000, states:

*“The implementation of the European Habitats Directive and Birds Directive, both with respect to species conservation and with respect to the establishment of the Natura 2000 network, is one of the most important tools for achieving the objectives of the Convention on Biological Diversity in the European Union and member states (European Parliament 2000)”.*

Article 6 of the Habitats Directive provides a strict assessment procedure for any plan or project not directly connected with or necessary to the management of a designated European site but which has the potential to have implications for the site in view of the site’s conservation objectives.

Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect Natura 2000 sites (Annex 1.1).

Article 6(3) establishes the requirement for Appropriate Assessment (AA):

*“Any plan or project not directly connected with or necessary to the management of the [Natura 2000] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”*

Article 6(4) states:

*“If, in spite of a negative assessment of the implications for the [Natura 2000] site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.”*

In Ireland, the requirements of Article 6(3) and (4) of the Habitats Directive have been broadly transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011), which has been amended by:

- European Union (Birds and Natural Habitats) (Sea-fisheries) Regulations 2013 (S.I. No. 290 of 2013)

- European Communities (Birds and Natural Habitats) (Amendment) Regulations 2013 (S.I. No. 499 of 2013)
- European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015 (S.I. No. 355 of 2015)
- Planning and Development, Heritage and Broadcasting (Amendment) Act 2021 (Act No. 11 of 2021)
- European Union (Birds and Natural Habitats) (Amendment) Regulations 2021 (S.I. No. 293 of 2021)

This report has taken into consideration the relevant requirements of the Planning and Development Act, 2000 (as amended by the Planning and Development Act 2010).

### 1.3 Methodology

This report is based on a desk study and many years of field surveys. The wider 'Broomfield' lands have been the subject of many years of field surveys by Faith Wilson the first being on the 3rd September 2013 with further surveys conducted on 28th May 2014, 16th May 2017, 11th June 2018, 20th June 2018, and 26th June 2018.

Additional habitat surveys focusing on the lands which form part of this SHD application were conducted on 16<sup>th</sup> October 2019, 16th June 2020, 31st August 2020, 16th October 2020, 1st December 2020, 8th January 2021 and 24th February 2022.

Badger surveys of the lands adjoining the northern Broomfield lands were conducted on 28th May 2014, 16th May 2017, 11th June 2018, 20th June 2018, and 26th June 2018 as part of surveys and monitoring work completed for the Ashwood Hall/Broomfield developments. These surveys focused on badger activity along the eastern boundary of the Ashwood Hall development (which lies to the west of, and shares a common boundary with the proposed Broomfield SHD application lands).

Further surveys of badger activity along this shared boundary continued during 2019/2020/2021 and 2022, and at a potential sett which was identified to the north of the Rugby Club Building during the initial walkover survey of the property conducted on 16<sup>th</sup> October 2019 and were followed up with further surveys on 16<sup>th</sup> June 2020, 1<sup>st</sup> December 2020, 8<sup>th</sup> January 2021, 5<sup>th</sup> October 2021 and 24th February 2022. A camera trap was deployed between the 1<sup>st</sup> December 2020 and 8<sup>th</sup> January 2021 at this potential sett.

The bat surveys of the wider Broomfield lands were first conducted on 28th May 2014, 16th May 2017, 20th June 2018, 26th /27th June 2018 by Faith Wilson. The rugby club building and the wider lands were resurveyed for bats on the 16<sup>th</sup>

October 2019 and 29<sup>th</sup> March 2022. Trees within the Broomfield lands were assessed for their potential to support roosting bats on 1<sup>st</sup> December 2020 and 8<sup>th</sup> January 2021.

An otter survey was conducted along drainage ditches and the Hazelbrook Stream during the site visits conducted on 16<sup>th</sup> June 2020, 1<sup>st</sup> December 2020, 8<sup>th</sup> January 2021, 5<sup>th</sup> October 2021 and 24<sup>th</sup> February 2022.

All birds seen and heard during the walkover surveys of the site on the 16<sup>th</sup> October 2019, 16<sup>th</sup> June 2020, 31<sup>st</sup> August 2020, 16<sup>th</sup> October 2020, 1<sup>st</sup> December 2020, 8<sup>th</sup> January 2021 and 24<sup>th</sup> February 2022 were recorded.

This information was used to determine the potential for likely significant effects arising from the proposed Project on the European Sites of Conservation Interest.

If the outcome of the screening exercise is that there is no likelihood for significant effects, then any further stages in the Appropriate Assessment process are not required.

If, based upon the currently available information, there are aspects of the proposed development that could have a significant effect on any European sites, then further analysis in the form of a Natura Impact Statement (NIS) to inform the Appropriate Assessment is required (see Section 3).

The information presented in Section 2 of this report is therefore as follows:

- Description of the proposed development.
- Identification of relevant European sites within 15km of the proposed development.
- Description of the existing ecological environment/sensitive receptors at the site.
- Assessment of likely significant effects on the integrity of European sites.
- Appropriate Assessment Screening conclusions.

## 1.4 Guidance Documents

This report has been prepared with regard to the following guidance documents where relevant:

- Office of the Planning Regulator Practice Note PN01 - Appropriate Assessment Screening for Development Management (OPR, 2021).
- *Assessment of plans and projects in relation to Natura 2000 sites – Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC 2021/C 437/01.* (Commission notice C/2021/6913. Dated 28.10.2021).
- *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* (European Commission Environment Directorate General, 2001)
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* (Commission Notice C(2018) 7621 final, Brussels, 21.11.2018)
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC* (EC Environment Directorate General, 2000)
- *Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities Circular NPW 1/10 & PSSP 2/10*
- *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities.* (Department of Environment, Heritage and Local Government, 2010 revision)
- *Guidelines for Good Practice, Appropriate Assessment of Plans under Article 6(3) Habitats Directive* (International Workshop on Assessment of Plans under the Habitats Directive, 2011)
- *Guidance Document on Article 6(4) of the Habitats Directive 92/43/EEC.* Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Over-riding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007) and
- *Communication from the Commission on the precautionary principle.* European Commission (2000).

## 1.5 Stages of Appropriate Assessment

The competent authority is required to carry out appropriate assessment, as required by Article 6(3) and 6(4) of the Habitats Directive, as follows:

- **Stage 1: Screening for Appropriate Assessment**

The first step to establishing if an appropriate assessment is required is referred to as 'screening' and its purpose is to determine, in view of best scientific knowledge, on the basis of a preliminary assessment and objective criteria if the plan or project, alone or in combination with other plans or projects, could have a significant effect on a Natura 2000 site in view of the sites conservation objectives. The process identifies any likely impacts upon a Natura 2000 Site, either alone or in combination with other projects or plans, and considers whether these impacts are likely to be significant.

- **Stage 2: Appropriate Assessment**

This is required if it cannot be excluded, on the basis of objective information, that the development, individually or in combination with other plans or projects, will have a significant effect on a Natura 2000 site.

The appropriate assessment must include a final determination by the competent authority as to whether or not a proposed development would adversely affect the integrity of a Natura 2000 site. In order to reach a final determination, the consenting authority must undertake examination, analysis and evaluation, followed by findings, conclusions and a final determination. The appropriate assessment must contain complete, precise and definitive findings and conclusions, and may not have lacunae or gaps.

Additionally, where there are deemed to be adverse impacts, an assessment of the potential mitigation of those impacts is considered.

- **Stage 3: Assessment of Alternative Solutions**

This stage examines alternative means of achieving the objectives of the project or plan that aim to avoid adverse impacts on the integrity of the Natura 2000 site.

- **Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain**

This stage is the main derogation process outlined in Article 6(4) which examines whether there are imperative reasons of overriding public interest (IROPI) for allowing a plan or project, which will have adverse effects on the integrity of a Natura 2000 site, to proceed.



## 2. SCREENING FOR APPROPRIATE ASSESSMENT

### 2.1 Project Description

The proposed development within the Broomfield SHD consists of 415 no. residential units, comprising of 252 houses, 28 duplex units and 135 apartments, and a childcare facility on lands at Broomfield, Malahide, Co. Dublin as shown on **Figures 2.1** and **2.2** below.



**Figure 2.1** Proposed development site for the Broomfield SHD, outlined in red at Broomfield, Malahide, Co. Dublin.



**Figure 2.2 Proposed development site for the Broomfield SHD, outlined in red at Broomfield, Malahide, Co. Dublin**

## 2.2 Desk Study

A desk study was carried out to collate the available information on the ecological environment potentially impacted by the proposed development at Broomfield and to determine the proximity of the proposed development to designated areas for conservation.

A review of existing information on European sites, their Qualifying Interests and Conservation Objectives, and other available information on the terrestrial and marine ecology in the vicinity of the proposed development was conducted.

Data sources relevant to each European site include the Site Synopsis, Conservation Objectives, the Conservation Objectives backing documents, and the Natura 2000 Standard Data Form, all of which are publicly available online at [www.npws.ie](http://www.npws.ie) were also reviewed.

The National Parks and Wildlife Service (NPWS) of the Department of Housing, Local Government and Heritage database of designated conservation areas and NPWS records of rare and protected plant species as listed under the Irish Red List - Vascular Plants (Wyse Jackson, *et al.* 2016) were checked with regard to the location of the lands at Broomfield.

Information on protected species of fauna and flora listed for protection under Annex II of the EU Habitats Directive (92/43/EEC), Annex I of the Birds Directive (79/409/EEC) and the Wildlife (Amendment) Act (2000) was also sought from NPWS, the National Biodiversity Data Centre and published sources.

Further ecological information was gathered in relation to the study area by examining GIS datasets, maps and aerial photographs, and by drawing on other existing information.

### 2.3 Identification of Sites

In line with the European Commission Methodological Guidance (EC (2001) and EC (2021)) and the DoEHLG Guidance (DoEHLG (2010)) a review of all European sites that could be potentially affected by the proposed project was made using the NPWS online map viewer. These included any European sites within or adjacent to the land at Broomfield and any European sites within the likely zone of impact of the proposed development (using the source – pathway – receptor criteria) including any downstream. These are summarised in **Table 2.3.1** and shown on **Figure 2.3** below.

In addition to the identified European sites consideration is also given to relevant species listed under Annexes I and II and IV of the Birds and Habitats Directives respectively.

The lands at Broomfield are not currently designated for any nature conservation purposes.

Eighteen Natura 2000 designated sites occur within a 15km radius of the site. These include nine Special Areas of Conservation (SACs) and nine Special Protection Areas (SPAs) as follows

- Malahide Estuary SAC (Site Code: 000205)
- Malahide Estuary SPA (Site Code: 004025)
- Baldoyle Bay SAC (Site Code: 000199)
- Baldoyle Bay SPA (Site Code: 004016)
- North Dublin Bay SAC (Site Code: 000206)
- North Bull Island SPA (Site Code: 004006)
- Rockabill to Dalkey Islands SAC (Site Code: 003000)
- Rogerstown Estuary SAC (Site Code: 000208)
- Rogerstown Estuary SPA (Site Code: 004015)
- Ireland's Eye SAC (Site Code: 002193)
- Ireland's Eye SPA (Site Code: 004117)

- South Dublin Bay/Tolka Estuary SPA (Site Code: 004024)
- South Dublin Bay SAC (Site Code: 000210)
- Howth Head SAC (Site Code: 000202)
- Howth Head Coast SPA (Site Code: 004113)
- Lambay Island SAC (Site Code: 000204)
- Lambay Island SPA (Site Code: 004069)
- Skerries Islands SPA (Site Code: 004122)

Some of these and a number of other sites in the area are also designated as proposed Natural Heritage Areas:

- Lambay Island pNHA (Site Code: 000204),
- Rogerstown Estuary pNHA (Site Code: 000208)
- Portraine Shore pNHA (Site Code: 001215),
- Malahide Estuary pNHA (Site Code: 000205),
- Feltrim Hill pNHA (Site Code: 001218),
- Sluice River Marsh pNHA (Site Code: 001763),
- Santry Demesne pNHA (Site Code: 000178),
- Ireland's Eye pNHA (Site Code: 000203),
- Howth Head pNHA (Site Code: 000202),
- Baldoyle Bay pNHA (Site Code: 000199).

The 10km square in which the site is located (O24) contains a number of historical and more recent records of rare and scarce botanical species - namely Hairy Violet (*Viola hirta*), Meadow Saxifrage (*Saxifraga granulata*), Red Hemp Nettle (*Galeopsis angustifolia*), Round Prickly Headed Poppy (*Papaver hybridum*), Annual knawel (*Scleranthus annuus*), Lesser Centaury (*Centaureum pulchellum*), Basil Thyme (*Acinos arvensis*), Meadow Barley (*Hordeum secalinum*) and Oyster Plant (*Mertensia maritima*).

**None of these species were recorded from the lands at Broomfield or are likely to occur within the proposed development.**

**Table 2.3.1. Designated Natura 2000 sites within a 15km radius of the land at Broomfield.**

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000205	Malahide Estuary SAC	1.2km N	<ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1320) Spartina swards (<i>Spartinion maritimae</i>)</li> <li>• (1330) Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)*</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Malahide Estuary SAC 000205. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1320) Spartina swards (<i>Spartinion maritimae</i>)</li> <li>• (1330) Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)*</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> </ul>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004025	Broadmeadow/ Swords Estuary SPA  (also known as Malahide Estuary SPA)	1.2km N	<ul style="list-style-type: none"> <li>• Great Crested Grebe (<i>Podiceps cristatus</i>) [A005]</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>• Pintail (<i>Anas acuta</i>) [A054]</li> <li>• Goldeneye (<i>Bucephala clangula</i>) [A067]</li> <li>• Red-breasted Merganser (<i>Mergus serrator</i>) [A069]</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>• Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>• Knot (<i>Calidris canutus</i>) [A143]</li> <li>• Dunlin (<i>Calidris alpina</i>) [A149]</li> <li>• Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>• Redshank (<i>Tringa totanus</i>) [A162]</li> <li>• Wetlands &amp; Waterbirds [A999]</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Malahide Estuary SPA 004025. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• [wintering] <i>Podiceps cristatus</i></li> <li>• [wintering] <i>Branta bernicla hrota</i></li> <li>• [wintering] <i>Tadorna tadorna</i></li> <li>• [wintering] <i>Anas acuta</i></li> <li>• [wintering] <i>Bucephala clangula</i></li> <li>• [wintering] <i>Mergus serrator</i></li> <li>• [wintering] <i>Haematopus ostralegus</i></li> <li>• [wintering] <i>Pluvialis squatarola</i></li> <li>• [wintering] <i>Calidris canutus</i></li> <li>• [wintering] <i>Limosa limosa</i></li> <li>• [wintering] <i>Limosa lapponica</i></li> <li>• [wintering] <i>Tringa tetanus</i></li> </ul> <p>To maintain the favourable conservation condition of the wetland habitat in Malahide Estuary SPA as a resource for the regularly-occurring migratory waterbirds that utilise it.</p>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000199	Baldoyle Bay SAC	2km SE	<ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1330) Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> </ul>	<p>Source: NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1330) Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> </ul>	Yes. Pathway identified for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004016	Baldoye Bay SPA	2km SE	<ul style="list-style-type: none"> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>• Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>• Golden Plover (<i>Pluvialis apricaria</i>) [A140]</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]</li> <li>• Wetlands &amp; Waterbirds [A999]</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Baldoye Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• [wintering] <i>Branta bernicla hrota</i></li> <li>• [wintering] <i>Tadorna tadorna</i></li> <li>• [wintering] <i>Charadrius hiaticula</i></li> <li>• [wintering] <i>Pluvialis squatarola</i></li> <li>• [wintering] <i>Limosa lapponica</i></li> </ul> <p>To maintain the favourable conservation condition of the wetland habitat in Baldoye Bay SPA</p>	Yes. Pathway identified for likely significant effects.
000206	North Dublin Bay SAC	5.4km SE	<ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1210) Annual vegetation of drift lines</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1320) <i>Spartina</i> swards (<i>Spartinion maritimae</i>)</li> <li>• (1330) Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> <li>• (1395) Petalwort (<i>Petalophyllum ralfsii</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• (2110) Embryonic shifting dunes</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> <li>• (2130) Fixed coastal dunes with herbaceous</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or the Annex II species for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1210) Annual vegetation of drift lines</li> </ul>	Although the wastewater from the project will discharge to the Ringsend WWTP, thereby creating a potential source receptor pathway from this site to the Dublin Bay



Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
			vegetation (grey dunes) <ul style="list-style-type: none"> <li>• (2190) Humid dune slacks</li> </ul>	<ul style="list-style-type: none"> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1320) <i>Spartina</i> swards (Spartinion <i>maritima</i>)</li> <li>• (1330) Atlantic salt meadows (<i>Glaucopuccinellietalia</i> <i>maritima</i>)</li> <li>• (1395) Petalwort (<i>Petalophyllum ralfsii</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia</i> <i>maritimi</i>)</li> <li>• (2110) Embryonic shifting dunes</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> <li>• (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)</li> <li>• (2190) Humid dune slacks</li> </ul>	Natura 2000 sites likely significant effects are ruled out as Irish Water have confirmed that the Ringsend WWTP has capacity for this connection.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004006	North Bull Island SPA	5.4km SE	<ul style="list-style-type: none"> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)</li> <li>• Shelduck (<i>Tadorna tadorna</i>)</li> <li>• Teal (<i>Anas crecca</i>)</li> <li>• Pintail (<i>Anas acuta</i>)</li> <li>• Shoveler (<i>Anas clypeata</i>)</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>)</li> <li>• Golden Plover (<i>Pluvialis apricaria</i>)</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>)</li> <li>• Knot (<i>Calidris canutus</i>)</li> <li>• Sanderling (<i>Calidris alba</i>)</li> <li>• Dunlin (<i>Calidris alpina</i>)</li> <li>• Black-tailed Godwit (<i>Limosa limosa</i>)</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> <li>• Curlew (<i>Numenius arquata</i>)</li> <li>• Redshank (<i>Tringa totanus</i>)</li> <li>• Turnstone (<i>Arenaria interpres</i>)</li> <li>• Black-headed Gull (<i>Larus ridibundus</i>)</li> <li>• Wetlands &amp; Waterbirds</li> </ul>	<p>Source: NPWS (2015) Conservation Objectives: North Bull Island SPA 004006. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• <i>Branta bernicla hrota</i> [wintering]</li> <li>• <i>Tadorna tadorna</i> [wintering]</li> <li>• <i>Anas crecca</i> [wintering]</li> <li>• <i>Anas acuta</i> [wintering]</li> <li>• <i>Anas clypeata</i> [wintering]</li> <li>• <i>Haematopus ostralegus</i> [wintering]</li> <li>• <i>Pluvialis apricaria</i> [wintering]</li> <li>• <i>Pluvialis squatarola</i> [wintering]</li> <li>• <i>Calidris canutus</i> [wintering]</li> <li>• <i>Calidris alba</i> [wintering]</li> <li>• <i>Calidris alpina</i> [wintering]</li> <li>• <i>Limosa limosa</i> [wintering]</li> <li>• <i>Limosa lapponica</i> [wintering]</li> <li>• <i>Numenius arquata</i> [wintering]</li> <li>• <i>Tringa totanus</i> [wintering]</li> <li>• <i>Arenaria interpres</i> [wintering]</li> <li>• <i>Chroicocephalus ridibundus</i> [wintering]</li> <li>• Wetlands</li> </ul>	<p>Although the wastewater from the project will discharge to the Ringsend WWTP, thereby creating a potential source receptor pathway from this site to the Dublin Bay Natura 2000 sites likely significant effects are ruled out as Irish Water have confirmed that the Ringsend WWTP has capacity for this connection.</p>

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
003000	Rockabill to Dalkey Islands SAC	5.4km E	<ul style="list-style-type: none"> <li>• (1170) Reefs</li> <li>• (1351) Harbour Porpoise (<i>Phocoena phocoena</i>)</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitat and the Annex II species for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1170) Reefs</li> <li>• (1351) Harbour Porpoise (<i>Phocoena phocoena</i>)</li> </ul>	<p>Although the wastewater from the project will discharge to the Ringsend WWTP, thereby creating a potential source receptor pathway from this site to the Dublin Bay Natura 2000 sites likely significant effects are ruled out as Irish Water have confirmed that the Ringsend WWTP has capacity for this connection.</p>

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000208	Rogerstown Estuary SAC	6.2km N	<ul style="list-style-type: none"> <li>• (1130) Estuaries</li> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1330) Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> <li>• (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)*</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Rogerstown Estuary SAC 000208. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1130) Estuaries</li> <li>• (1140) Mudflats and sandflats not covered by seawater at low tide</li> <li>• (1310) <i>Salicornia</i> and other annuals colonizing mud and sand</li> <li>• (1330) Atlantic salt meadows (<i>Glaucopuccinellietalia maritimae</i>)</li> <li>• (1410) Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• (2120) Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</li> <li>• (2130) Fixed coastal dunes with herbaceous vegetation (grey dunes)*</li> </ul>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004015	Rogerstown Estuary SPA	6.2km N	<ul style="list-style-type: none"> <li>• Greylag Goose (<i>Anser anser</i>) [A043]</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Shelduck (<i>Tadorna tadorna</i>) [A048]</li> <li>• Shoveler (<i>Anas clypeata</i>) [A056]</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>) [A130]</li> <li>• Ringed Plover (<i>Charadrius hiaticula</i>) [A137]</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>) [A141]</li> <li>• Knot (<i>Calidris canutus</i>) [A143]</li> <li>• Dunlin (<i>Calidris alpina</i>) [A149]</li> <li>• Black-tailed Godwit (<i>Limosa limosa</i>) [A156]</li> <li>• Redshank (<i>Tringa totanus</i>) [A162]</li> <li>• Wetlands &amp; Waterbirds [A999]</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Rogerstown Estuary SPA 004015. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• [wintering] <i>Anser anser</i></li> <li>• [wintering] <i>Branta bernicla hrota</i></li> <li>• [wintering] <i>Tadorna tadorna</i></li> <li>• [wintering] <i>Anas clypeata</i></li> <li>• [wintering] <i>Haematopus ostralegus</i></li> <li>• [wintering] <i>Charadrius hiaticula</i></li> <li>• [wintering] <i>Pluvialis squatarola</i></li> <li>• [wintering] <i>Calidris canutus</i></li> <li>• [wintering] <i>Limosa limosa</i></li> <li>• [wintering] <i>Tringa totanus</i></li> </ul> <p>To maintain the favourable conservation condition of wetland habitat in Rogerstown Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.</p>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004117	Ireland's Eye SPA	6.4km SE	<ul style="list-style-type: none"> <li>• Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>• Herring Gull (<i>Larus argentatus</i>) [A184]</li> <li>• Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>• Guillemot (<i>Uria aalge</i>) [A199]</li> <li>• Razorbill (<i>Alca torda</i>) [A200]</li> </ul>	<p>Source: NPWS (2022) Conservation objectives for Ireland's Eye SPA [004117]. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• [breeding] <i>Phalacrocorax carbo</i></li> <li>• [breeding] <i>Larus argentatus</i></li> <li>• [breeding] <i>Rissa tridactyla</i></li> <li>• [breeding] <i>Uria aalge</i></li> <li>• [breeding] <i>Alca torda</i></li> </ul>	No, as no pathway for likely significant effects.
002193	Ireland's Eye SAC	6.4km SE	<ul style="list-style-type: none"> <li>• Perennial vegetation of stony banks [1220]</li> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> </ul>	<p>Source: NPWS (2017) Conservation Objectives: Ireland's Eye SAC 002193. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• Perennial vegetation of stony banks [1220]</li> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> </ul>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004024	South Dublin Bay and River Tolka Estuary SPA	8.1km S	<ul style="list-style-type: none"> <li>• Brent goose (<i>Branta bernicla hrota</i>),</li> <li>• Sandwich Tern (<i>Sterna sandvicensis</i>),</li> <li>• Roseate Tern (<i>Sterna dougallii</i>),</li> <li>• Common Tern (<i>Sterna hirundo</i>),</li> <li>• Arctic Tern (<i>Sterna paradisaea</i>),</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>),</li> <li>• Ringed Plover (<i>Charadrius hiaticula</i>),</li> <li>• Knot (<i>Calidris canuta</i>),</li> <li>• Sanderling (<i>Calidris alba</i>),</li> <li>• Dunlin (<i>Calidris alpina</i>),</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> </ul>	<p>Source: NPWS (2015) Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• Brent goose (<i>Branta bernicla hrota</i>),</li> <li>• Sandwich Tern (<i>Sterna sandvicensis</i>),</li> <li>• Roseate Tern (<i>Sterna dougallii</i>),</li> <li>• Common Tern (<i>Sterna hirundo</i>),</li> <li>• Arctic Tern (<i>Sterna paradisaea</i>),</li> <li>• Oystercatcher (<i>Haematopus ostralegus</i>),</li> <li>• Ringed Plover (<i>Charadrius hiaticula</i>),</li> <li>• Knot (<i>Calidris canuta</i>),</li> <li>• Sanderling (<i>Calidris alba</i>),</li> <li>• Dunlin (<i>Calidris alpina</i>),</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> </ul> <p>To maintain the favourable conservation condition of wetland habitat in South Dublin and the River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.</p>	<p>Although the wastewater from the project will discharge to the Ringsend WWTP, thereby creating a potential source receptor pathway from this site to the Dublin Bay Natura 2000 sites likely significant effects are ruled out as Irish Water have confirmed that the Ringsend WWTP has capacity for this connection.</p>

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000202	Howth Head SAC	8.4km SE	<ul style="list-style-type: none"> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>• European dry heaths [4030]</li> </ul>	<p>Source: NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]</li> <li>• European dry heaths [4030]</li> </ul>	No, as no pathway for likely significant effects.
004113	Howth Head Coast SPA	8.4km SE	<ul style="list-style-type: none"> <li>• Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> </ul>	<p>Source: NPWS (2022) Conservation objectives for Howth Head Coast SPA [004113]. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• [breeding] <i>Rissa tridactyla</i></li> </ul>	No, as no pathway for likely significant effects.



Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000210	South Dublin Bay SAC	10.7km S	<ul style="list-style-type: none"> <li>• Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>• Annual vegetation of drift lines [1210]</li> <li>• Salicornia and other annuals colonising mud and sand [1310]</li> <li>• Embryonic shifting dunes [2110]</li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain or restore the favourable conservation condition of the Annex I habitats for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• Mudflats and sandflats not covered by seawater at low tide [1140]</li> <li>• Annual vegetation of drift lines [1210]</li> <li>• Salicornia and other annuals colonising mud and sand [1310]</li> <li>• Embryonic shifting dunes [2110]</li> </ul>	<p>Although the wastewater from the project will discharge to the Ringsend WWTP, thereby creating a potential source receptor pathway from this site to the Dublin Bay Natura 2000 sites likely significant effects are ruled out as Irish Water have confirmed that the Ringsend WWTP has capacity for this connection.</p>

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
000204	Lambay Island SAC	9.8km NE	<ul style="list-style-type: none"> <li>• (1230) Vegetated sea cliffs of the Atlantic and Baltic coasts</li> <li>• (1170) Reefs</li> <li>• (1364) <i>Halichoerus grypus</i></li> <li>• (1265) <i>Phoca vitulina</i></li> </ul>	<p>Source: NPWS (2013) Conservation Objectives: Lambay Island SAC 000204. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the Annex I habitat and the Annex II species for which the SAC has been selected:</p> <ul style="list-style-type: none"> <li>• (1230) Vegetated sea cliffs of the Atlantic and Baltic coasts</li> <li>• (1170) Reefs</li> <li>• (1364) <i>Halichoerus grypus</i></li> <li>• (1265) <i>Phoca vitulina</i></li> </ul>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004069	Lambay Island SPA	9.8km NE	<ul style="list-style-type: none"> <li>• Fulmar (<i>Fulmarus glacialis</i>) [A009]</li> <li>• Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>• Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>• Greylag Goose (<i>Anser anser</i>) [A043]</li> <li>• Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] ^</li> <li>• Herring Gull (<i>Larus argentatus</i>) [A184] ^</li> <li>• Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>• Guillemot (<i>Uria aalge</i>) [A199]</li> <li>• Razorbill (<i>Alca torda</i>) [A200]</li> <li>• Puffin (<i>Fratercula arctica</i>) [A204]</li> </ul>	<p>Source: NPWS (2022) Conservation objectives for Lambay Island SPA [004069]. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• Fulmar (<i>Fulmarus glacialis</i>) [A009]</li> <li>• Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>• Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>• Greylag Goose (<i>Anser anser</i>) [A043]</li> <li>• Lesser Black-backed Gull (<i>Larus fuscus</i>) [A183] ^</li> <li>• Herring Gull (<i>Larus argentatus</i>) [A184] ^</li> <li>• Kittiwake (<i>Rissa tridactyla</i>) [A188]</li> <li>• Guillemot (<i>Uria aalge</i>) [A199]</li> <li>• Razorbill (<i>Alca torda</i>) [A200]</li> <li>• Puffin (<i>Fratercula arctica</i>) [A204]</li> </ul>	No, as no pathway for likely significant effects.

Site Code	Site Name and Designation	Approximate distance from the proposed development	Qualifying Interest	General Conservation Objectives	Potential for Likely Significant Effects
004122	Skerries Islands SPA	14.99km north	<ul style="list-style-type: none"> <li>• Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>• Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Purple Sandpiper (<i>Calidris maritima</i>) [A148]</li> <li>• Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>• Herring Gull (<i>Larus argentatus</i>) [A184]</li> </ul>	<p>Source: NPWS (2022) Conservation objectives for Skerries Islands SPA [004122]. Generic Version 9.0. Department of Housing, Local Government and Heritage.</p> <p>Accessed 23<sup>rd</sup> March 2022.</p> <p>To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:</p> <ul style="list-style-type: none"> <li>• Cormorant (<i>Phalacrocorax carbo</i>) [A017]</li> <li>• Shag (<i>Phalacrocorax aristotelis</i>) [A018]</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]</li> <li>• Purple Sandpiper (<i>Calidris maritima</i>) [A148]</li> <li>• Turnstone (<i>Arenaria interpres</i>) [A169]</li> <li>• Herring Gull (<i>Larus argentatus</i>) [A184]</li> </ul>	No, as no pathway for likely significant effects.



Figure 2.3. European sites within a 15km radius of the proposed development lands at Broomfield (indicated by the red arrow).

## **2.4 Assessment of Significance**

This section considers the list of Natura 2000 sites detailed in **Table 2.3.1** and their qualifying habitats and species under the EU Habitats and Birds Directives.

### **Hydrological Links to Natura 2000 sites:**

There are no Natura 2000 sites located either within or directly adjacent to the lands at Broomfield.

The Hazelbrook Stream is found along the southern boundary of the southern site. This watercourse drains to the Sluice River and discharges into Baldoyle Bay thereby providing a hydrological link to the Natura 2000 site.

All of the sites with the exception of the Baldoyle Bay SAC/SPA were therefore excluded from further assessment on the basis that potential impacts from the development at Broomfield will have no adverse effects on the integrity of these sites as defined by their status and conservation objectives.

## **2.5 Screening Assessment Conclusion**

In order to determine the potential impacts, if any, of the proposed development at Broomfield on nearby Natura 2000 sites a screening process was completed. This identified eighteen Natura 2000 sites within a 15km radius, which are designated as either an SAC or an SPA.

It has been determined that two of these sites are potentially impacted by the proposed development - Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016), which are hydrologically connected to the development lands.

The screening process also confirmed that no proposed Natural Heritage Area will be potentially impacted by the proposed development and no protected flora species will be impacted.

### **3. APPROPRIATE ASSESSMENT**

Given that a potential risk to water quality within the Baldoyle Bay SAC/SPA has been identified a full appropriate assessment has been conducted.

#### **3.1 Description of the site, its environs and habitats**

The lands proposed for development under the Broomfield SHD application adjoin Phase 1 of the development of these lands (Brookfield and Ashwood Hall).

The northern lands are located to the south of Back Road and Malahide Castle demesne, and are bounded to the north by private residences, to the east by the Dublin Belfast railway line, to the west by set aside arable fields and the residential developments of Ashwood Hall and Broomfield, which are currently under construction.

The southern lands are bounded to the west by the residential development of Hazelbrook and Castleway, to the south by Hazelbrook Stream, to the east by agricultural lands and to the north by a drainage ditch and the residential development of Broomfield. A habitat map of the receiving habitats mapped to Fossitt Level 3 is presented on **Figure 3.1** below. The location of the Hazelbrook Stream is shown on **Figure 3.2** below.





Figure 3.1. Habitat Map of the Broomfield SHD lands.

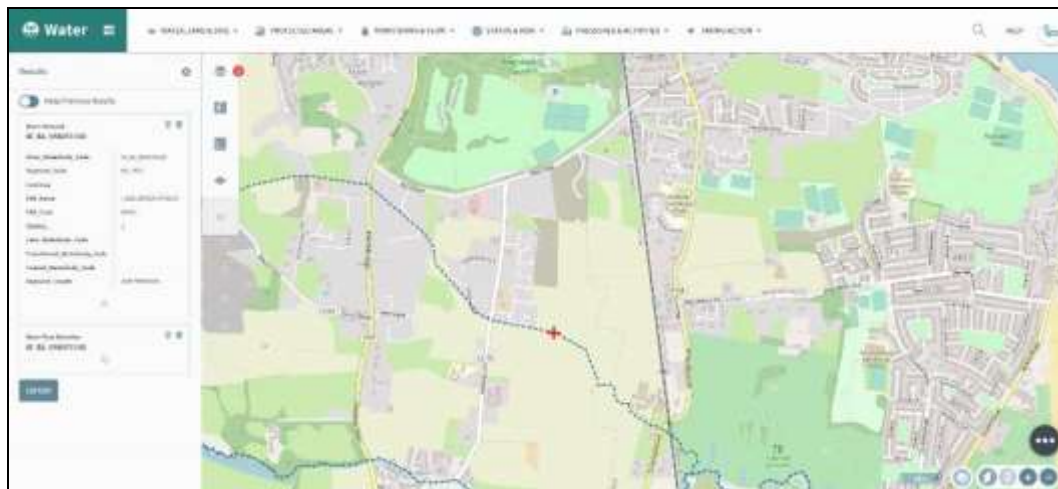


Figure 3.2. The Hazelbrook Stream adjoins the site to the south.

The 10km square in which the site is located (O24) contains a number of historical and more recent records of rare and scarce botanical species – namely Hairy Violet (*Viola hirta*), Meadow Saxifrage (*Saxifraga granulata*), Red Hemp Nettle (*Galeopsis angustifolia*), Round Prickly Headed Poppy (*Papaver hybridum*), Annual knawel (*Scleranthus annuus*), Lesser Centaury (*Centaureum pulchellum*), Basil Thyme (*Acinos arvensis*), Meadow Barley (*Hordeum secalinum*) and Oyster Plant (*Mertensia maritima*).



**None of these species were recorded from the lands at Broomfield, Back Road or are likely to occur within the proposed development given the nature of the habitats present.**

### **Southern Lands**

The southern lands proposed for development within the Broomfield SHD lands consist of an area of stored topsoil (ED3), an area of recently ploughed ground (BC3), an area of recolonising set aside (ED2) and an area of agricultural land planted with arable crops (BC1) principally barley (but also oats in the past)). A block wall and a post and timber panel separates these lands from the Hazelbrook and Castleway developments to the west and a drainage ditch (FW4) is found along the northern boundary of these lands. The Hazelbrook Stream (FW2) is found along the southern boundary of these lands.



**Plate 1. Hazelbrook Stream along the southern boundary of the southern lands.**

A variety of common ruderal and arable weeds were recorded on these lands including; common orache (*Atriplex patula*), knotgrass (*Polygonum aviculare*), common fumitory (*Fumaria officinalis*), redshank (*Persicaria maculosa*), mouse ear chickweed (*Cerastium arvense*), good king henry (*Chenopodium bonus-henricus*), perennial sow thistle (*Sonchus arvensis*), groundsel (*Senecio vulgaris*), red dead nettle (*Lamium purpureum*), field speedwell (*Veronica persicaria*), common poppy (*Papaver rhoeas*), wild turnip (*Brassica rapa*), etc. Bristly oxtongue (*Picris echioides*) was found in some abundance here following recent disturbance of soil.



**Plate 2. Stored topsoil and recently ploughed land east of Hazelbrook.**

The Hazelbrook Stream (FW2) is found along the southern boundary of these lands and is vegetated with fool's watercress (*Apium nodiflorum*), bur reed (*Sparganium* sp.), reed canary grass (*Phalaris arundinacea*) and duckweed (*Lemna* sp.), while hoary willowherb (*Epilobium hirsutum*), figwort (*Scrophularia nodosa*)



and wild angelica (*Angelica sylvestris*) is found on the banks. The stream here has been canalised and deepened. The drier banks of soil beside the watercourse are dominated by false oat-grass, creeping thistle, oats, nettle, bindweed (*Calystegia sepium*), dove's-foot cranesbill (*Geranium molle*) with flailed elder, ash and Wych elm. The Hazelbrook Stream drains to the Sluice River and discharges into Baldoyle Bay which is designated as the Baldoyle Bay SAC/SPA.

The area of stored topsoil (ED3) adjoining Hazelbrook has revegetated with wild turnip, hoary willowherb, buddleia, creeping thistle, docks, creeping bent and nettles.



**Plate 3. Set aside land and arable crop on the southern lands.**

A deep drainage ditch (FW4) which was infilled between the Castlebrook and Hazelwood developments, forms the northern boundary of the southern lands.

This was wet at the time of survey and supports fool's watercress, hoary willowherb, angelica and duckweed, with bindweed, hogweed, nettle, docks, false oat grass and meadow vetchling (*Lathyrus pratensis*) on the earthen banks (BL2).



**Plate 4. Looking north east towards the former rugby club lands from the southern lands.**



**Plate 5. Drainage ditch at the northern boundary of the southern lands.**



### Northern Lands

The north eastern portion of the northern Broomfield SHD lands includes the former Rugby Club lands and clubhouse (BL3). These lands were developed on infilled land adjacent to the railway line and would originally have been managed as amenity grassland but are now dominated by rank grassland (GS2) and scrub (WS1). The land is bounded to the east by the Dublin - Belfast railway line alongside which is a treeline (WL2) of ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*).



**Plate 6. Eastern boundary of the rugby club lands adjoining the railway line.**

The southern portion of the former Rugby Club lands are dominated by scrub (WS1) consisting of dense tangles of bramble (*Rubus fruticosus* agg.), buddleia bush (*Buddleia davidii*), and scattered immature ash (*Fraxinus excelsior*). The grassland (GS2) on the former playing area is dominated by Yorkshire fog

(*Holcus lanatus*), false oat-grass (*Arrhenatherum elatius*), cock's-foot grass (*Dactylis glomerata*), red fescue (*Festuca rubra*), with occasional dandelion (*Taraxacum* agg.), ribwort plantain (*Plantago lanceolata*), creeping buttercup (*Ranunculus repens*), meadow buttercup (*Ranunculus acris*) and germander speedwell (*Veronica chamaedrys*).

The treeline (WL2) near the rugby club building has Wych elm (*Ulmus glabra*) and ash, and dense bramble tangles and several ornamental shrubs are found around the building forming an area of scrub (WS1). A double treeline (WL2) of Cypress (*Cupressus* sp.) separates the rugby club building from a small field located at the rear of the residences on Back Road. A deep drainage ditch (FW4) which was dry at the time of survey is found at the base of this treeline and an old disused badger (*Meles meles*) sett, which is currently used by fox (*Vulpes vulpes*) is located here. Three rows of apple (*Malus* sp.), sycamore, beech (*Fagus sylvatica*), hawthorn (*Crataegus monogyna*), and poplar (*Populus alba*) are found on the north side of this treeline forming an area of immature woodland (WS2).



**Plate 7. Scrub at the southern end of the rugby club lands.**

The northern field had been recently disturbed in June 2020 by test trenching for archaeological purposes and is abandoned pasture which has become invaded by large patches of hogweed (*Heracleum sphondylium*), nettle (*Urtica dioica*), bramble, creeping thistle (*Cirsium arvense*), and docks (*Rumex* sp.). This area is heavily grazed by rabbits. A deep ditch adjoins an earthen bank (BL2) on the eastern boundary and a double hedgerow (WL1) of hawthorn, ash, sycamore and bramble is found here. Numerous rabbit burrows are found on the earthen banks (BL2). An old laneway (possibly a way leave for the railway) is located between it and the fence of the railway line beyond which is a treeline (WL2). This is vegetated with hogweed, ivy (*Hedera helix*), bramble, bush vetch (*Vicia sepium*), nettle, false-brome (*Brachypodium sylvaticum*), sycamore seedlings, greater plantain (*Plantago major*), ragwort (*Senecio jacobaea*), docks, Yorkshire fog and lesser burdock (*Arctium minus*).



Some areas of very dense bramble could not be adequately surveyed for fauna in this area and these will need to be supervised during site clearance.

The northern boundary of the northern field is demarcated by a hedgerow (WL1) of ash, elder (*Sambucus nigra*), bramble and sycamore with occasional mature ash and sycamore. An ESB substation is located here.



**Plate 8. Treeline to the north of the rugby club.**

The western boundary of the northern field consists of a treeline (WL2) of mature and semi-mature ash and sycamore located on an earthen bank with cherry laurel (*Prunus laurocerasus*), dog rose (*Rosa canina*), Wych elm (*Ulmus glabra*), beech and hawthorn. A drainage ditch (FW4) which was dry at the time of survey is located at the base of this treeline.

Between the former Rugby Club lands and the Ashwood Hall development is a field which has been either recently ploughed ground (BC3), an area of agricultural land planted with arable crops (BC1) or more recently an area of recolonising set aside (ED2). A similar suite of species to those recorded on the southern lands were recorded here. This field is bounded to the west by the shared treeline (WL2) of Ashwood Hall which is dominated by mature and semi-mature ash (*Fraxinus excelsior*), oak (*Quercus robur*), wild cherry (*Prunus avium*), sweet chestnut (*Castanea sativa*), sycamore (*Acer pseudoplatanus*), and beech (*Fagus sylvatica*) with an understorey of hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), Wych elm (*Ulmus glabra*), bramble (*Rubus fruticosus* agg.), elder (*Sambucus nigra*) and dog rose (*Rosa canina*). This treeline is located on a shallow earthen bank (BL2) with an associated deep drainage ditch (FW4) which was dry at the time of survey. East of this is a treeline (WL2) of Leyland and Lawson cypress near the rugby clubhouse.



**Plate 9. Broomfield under development.**



**Plate 10. North eastern field - showing test trenching activity for archaeology in June 2020.**





**Plate 11. Old laneway adjoining the railway line.**

The three private residences, which were located near the former rugby club in Pocket Park, have been demolished. These works were completed under a bat derogation licence issued by National Parks and Wildlife Service and supervised by Faith Wilson (see below). Surrounding the residences are remnant hedgerows (WL1), which have been retained. These are dominated mostly by non-native species such as leylandii, beech and other ornamental shrubs. A younger treeline (WL2) of horse chestnut (*Aesculus hippocastanum*) and field maple (*Acer campestre*) is found along the northern boundary of these properties adjoining the road.



**Plate 12. Looking south west over the northern field.**

### **Invasive Species**

The main invasive species noted in the general vicinity include stands of Japanese knotweed (*Fallopia japonica*) and buddleia (*Buddleia davidii*) which were found within the rugby club lands. The location of these stands is shown on **Figure 3.3** below.

A detailed Japanese knotweed management plan was developed to ensure that this species is not and has not inadvertently been spread during development of the site.

The client Carroll Estates Ltd./Birchwell Developments engaged a trained horticulturalist (Graeme Cahill) to treat the Japanese knotweed in 2017. The first treatment of the knotweed at Broomfield was on May 19<sup>th</sup> 2018. An application



rate of 100ml Glyphosate:5 litres water was used. A total of 3 litres of spray was applied via a knapsack sprayer. Follow up treatment has since been conducted.

The Japanese knotweed stands have been the subject of ongoing treatment in situ and have not spread or become established elsewhere within the site in the intervening period.



Figure 3.3 Location of Japanese knotweed within the site.



**Plate 13. Japanese knotweed on the former rugby club lands following treatment in 2018.**



**Plate 14. Japanese knotweed areas clearly demarcated and treated in January 2021.**

**Faunal Interest**

As part of a request for further information from Fingal County Council Planning (Reg Ref: F13A/0459 (Item 4)) and An Bord Pleanála Reference Number: PL 06F.243863 Planning Condition 6 for the development of Ashwood Hall and Broomfield Phase 1 a Badger and Biodiversity Management Plan was prepared and has been implemented during the construction of the neighbouring developments of Ashwood Hall and Broomfield Phase 1.

### ***Badger***

A badger (*Meles meles*) sett, as documented in 2014, is located at the southern end of the shared treeline with Ashwood Hall, which forms the western boundary of the northern lands of the Broomfield SHD.

This badger sett consists of a single entrance sett, which was not active at the time of the initial or subsequent surveys. This and a number of other holes and burrows in the area are well used by rabbits but there was no evidence of current use by badger during recent surveys.

There were feeding signs of badger noted along the southern boundary of the Broomfield Phase 1 lands in 2014 and a dead badger was noted on the Back Road to the west of the entrance to Malahide Castle.

The current surveys conducted in 2019/2020 recorded a possible second disused sett within the treeline north of the rugby club building. This was in use by fox at that time. The locations of these inactive setts are shown on **Figure 3.4** below.





**Plate 15. Trails leading to badger sett (disused) north of the rugby club building.**

It is considered likely that the setts within the Broomfield SHD lands are used by badgers as outlier setts to a main territory, which is located within Malahide Castle Demesne.



**Figure 3.4. Badger setts within the Broomfield SHD lands.**

The setts within the Broomfield SHD lands have been the subject of ongoing monitoring over the winter months during 2020/2021 and 2021/2022. A camera trap was deployed here between 1<sup>st</sup> December 2020 and 8<sup>th</sup> January 2021. No evidence of badger was recorded on the trap. The results of these surveys are presented below.

**1<sup>st</sup> December 2020**

No badger activity at northern or southern setts - numerous tracks through undergrowth - attributed to rabbit and fox.

**8<sup>th</sup> January 2021**

No badger activity at northern or southern setts - numerous tracks through undergrowth - attributed to rabbit and fox.

**5<sup>th</sup> October 2021**

No badger activity at northern or southern setts – numerous tracks through undergrowth – attributed to rabbit and fox.

#### **24<sup>th</sup> February 2022**

No badger activity at northern or southern setts – numerous tracks through undergrowth – attributed to rabbit and fox. Large fox scat at northern sett.

The setts present within the Broomfield lands would appear to not be in use by badger.

#### ***Bats***

Bats on the Broomfield lands have been the subject of a number of bat surveys to date (conducted in 2014, 2017, 2018 and 2019). The results of these are outlined below.

#### ***2014 Survey***

The detector survey conducted in 2014 confirmed the presence of three species of bats using the environs of the lands at Broomfield. These included the following species:

- Leisler's bat (*Nyctalus leisleri*)
- Common Pipistrelle (*Pipistrellus pipistrellus*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)

Leisler's bat was recorded immediately after dusk flying high over the site. Common and Soprano Pipistrelle bats were recorded foraging along the boundary and internal treelines and hedgerows and hunting over the open fields. No confirmed tree roosts were recorded on the site but several of the mature trees in the central treeline have some potential to support roosting bats. The buildings were not surveyed as part of that survey.

#### ***2017 & 2018 Surveys***

A detector survey conducted at dusk on the 16<sup>th</sup> May 2017 recorded 3-5 common pipistrelles foraging along the lane which provides access to the three houses and the rugby club building from Back Lane. Only the grounds of the first house (westernmost property) could be walked and examined and access was not possible to the other two properties.

The surveys conducted on the 20<sup>th</sup> and 26<sup>th</sup>/27<sup>th</sup> June 2018 confirmed the presence of four species of bats at Broomfield. These were as follows:

- Leisler's bat (*Nyctalus leisleri*)
- Common Pipistrelle (*Pipistrellus pipistrellus*)
- Soprano Pipistrelle (*Pipistrellus pygmaeus*)
- Brown long-eared bat (*Plecotus auritus*)

In the intervening period between 2017 and 2018 the buildings had been the subject of various damaging activities including the theft of copper piping and materials associated with heating systems, stripping of lead flashings from the roofs and in the case of the middle house a fire which had completely destroyed the roof structure of the house.

**House 1**

This was the westernmost property and is a dormer bungalow with a detached garage. The roof was composed of tiles on felt. There was no evidence of bats roosting in this property but swallows were recorded nesting in the garage.



**Plate 16. House 1 and detached garage - front view in 2018.**





**Plate 17. House 1 and detached garage – rear view in 2018.**

### **House 2**

This was the central property, which had been burnt out since it was first examined externally in 2017. The roof was almost completely gone and only a small area of tiles on battens remains. A detached garage associated with this property remained extant.



**Plate 18. House 2 – front view in 2018.**



**Plate 19. House 2 and detached garage - rear view in 2018.**

Common and Soprano pipistrelle were recorded in the garden of this property and 2 common pipistrelle were seen returning to the garage at dawn on the 27<sup>th</sup> June 2018.



**Plate 20. House 2 - detached garage in 2018.**

### **House 3**

This was the easternmost of the three houses. The main house was connected to a long extension building (which contains a boiler room) by a conservatory. A small annex/granny flat building was located in the garden. The roof was

stripped of lead flashing but generally remained intact. The roof spaces of the house and adjoining building had been converted and velux windows were present (albeit smashed in some instances).

The granny flat in the garden had both soprano pipistrelle and common pipistrelle bats emerging at dusk (c. 2- 3 bats) and foraging extensively along the treeline which extends south at the back of this property. They were joined by approximately 8-9 bats which appeared to emerge from the fascia boards on the rear of the main house, indicating a possible roost on the main gable of the house. In total 10-12 bats were recorded.

A single brown long-eared bat was recorded roosting in the boiler house of the long extension.



**Plate 21. House 3 - rear view in 2018. Bats emerged from the fascia of the main gable as indicated by the red arrow).**





**Plate 22. House 3 in 2018 - long extension building which contained the boiler house (indicated by the red arrow).**



**Plate 23. Granny flat in the garden of House 3 in 2018. Up to 5 common pipistrelle and soprano pipistrelle emerged from this building.**





**Plate 24. Brown long eared bat roosting in the boiler house in 2018.**

### **Rugby Clubhouse Building**

The rugby clubhouse also had a tiled roof and has been subject to some vandalism and theft. A single common pipistrelle bat was seen flying in the attic. Approximately 2-3 common pipistrelle and soprano pipistrelle bats were recorded emerging from this building and foraging in the general vicinity.



**Plate 25. Former rugby clubhouse building in 2018.**

Leisler's bat was recorded foraging above the site and appeared to approach the lands from the railway bridge area to the north - east. No roosts were confirmed for this species in the site.

In summary no confirmed maternity roosts were recorded in the surveys in 2017 and 2018 in any of the four properties scheduled for demolition. Three species recorded were roosting in small numbers and in various locations as detailed above. A bat derogation licence was granted by NPWS for the demolition of these buildings in 2018.

The three residential properties were demolished under licence between the 8<sup>th</sup> and 15<sup>th</sup> October 2018 under the supervision of Faith Wilson. As per the mitigation measures in the bat report and the conditions of the licence the roof tiles were removed manually and half the roof of each structure exposed and left overnight. A photographic record of this process is presented below.



Plate 26. Roof stripping of the easternmost house in October 2018.



Plate 27. Roof stripping of the easternmost house in October 2018.



**Plate 28. Roof stripping of the easternmost house in October 2018.**



**Plate 29. Roof stripping of the easternmost house in October 2018.**





**Plate 30. Demolition of the easternmost house in October 2018.**



**Plate 31. Roof stripping of the granny flat in the grounds of the easternmost house in October 2018.**

No bats were injured during this process. Two pipistrelle bats (species unidentified) were recorded emerging from the fascia boards of the easternmost house during the works. There were no significant build up of droppings in any of the roofs which would indicate that a maternity roost had been present.

**2019 Survey**

The final extant building (the former rugby club) and the lands proposed for development under the Broomfield SHD application were resurveyed on the 16<sup>th</sup> October 2019 during clear, calm conditions.

Leisler's bat was recorded foraging over the southern lands and over the area of scrub south of the rugby club building. The rugby club building had been the subject of arson and no longer has an intact roof/attic space. No bats were recorded emerging from this property.



**Plate 32. Rugby club building destroyed by arson.**

Soprano pipistrelle bat and common pipistrelle bat were recorded foraging along the laneway leading from the rugby club east towards Ashwood Hall, over the northern field and in the shelter of the laneway adjoining the railway line and

along the central treeline between Ashwood Hall and the eastern Broomfield SHD lands.

### **2022 Survey**

The final extant building (the former rugby club) and the lands proposed for development under the Broomfield SHD application were resurveyed on the 29<sup>th</sup> March 2022 during clear, calm conditions. Initial temperatures were 9.5°C dropping to 8°C at the end of the survey.

The first bat species recorded was observed at 20:20 when a Leisler's bat was recorded foraging along the edge of the railway line and over the area of scrub south of the rugby club building.



**Plate 33. Rugby club building in 2022.**

The rugby club building had deteriorated further in condition with fascia removed and the soffits exposed. No bats were recorded emerging from this property.

Common pipistrelle and soprano pipistrelle bats were recorded foraging in the shelter of the treelines/vegetation adjoining the railway line, along the treeline at the northern side of the access road to the site and along the treeline which forms

the western boundary of the northern lands with Ashwood Hall. No bat activity was recorded in the southern lands.

### **Other Mammals**

The terrestrial fauna consists of species typical of the open countryside of North Dublin. There are many rabbits (*Oryctolagus cuniculus*) present and a fox (*Vulpes vulpes*) has been both seen and heard during the site visits. A foxes den was noted on grounds within the railway cutting along the eastern boundary of the northern lands.

Other common fauna that would be expected include brown rat (*Rattus norvegicus*), long tailed field mouse (*Apodemus sylvaticus*), house mouse (*Mus musculus*), hedgehog (*Erinaceus europaeus*), and pygmy shrew (*Sorex minutus*). Irish stoat (*Mustela erminea hibernica*) may also occur but have not been observed – they have been recorded from Malahide Demesne to the north of the lands, where grey squirrels (*Sciurus carolinensis*) are also frequent.

### **Birds**

The bird fauna recorded was rich and a good variety of breeding species were recorded. Species recorded from hedgerows and treelines within the site over the years include blackbird, yellowhammer, robin, willow warbler, goldfinch, wren, blue tit, song thrush, bullfinch, chaffinch, starling, woodpigeon, starling, dunnock, jackdaw, and greenfinch.

Corvid species recorded on site include; rook, magpie, hooded crow and jackdaw.

Pied wagtails were recorded in the vicinity of the new housing at Ashwood Hall.

Birds of prey such as buzzard and sparrowhawk were confirmed using the area and summer visitors, such as swallow were regularly observed.

Species such as redwing and fieldfare may visit during the winter months.

Mallard ducks have been observed rising from the Hazelbrook Stream along the southern boundary of the southern lands. Grey heron was seen flying over the lands in darkness on the 29<sup>th</sup> March 2022 travelling north.

### **Amphibians**

There are no ponds or other water features within the red line boundary of the site that could support breeding frogs and newts – however these species may utilise the areas of standing water in drainage ditches and slow flowing sections of the Hazelbrook Stream.



Chapter 5 of the EIAR provides further details on the baseline ecological environment and sets out mitigation measures to ensure impacts on same are avoided where possible, minimised and mitigated for.

### 3.2 Description of the Proposed Development

The proposed development, as per the description contained within the statutory planning notices, provides for:

*“We, Birchwell Developments Ltd., intend to apply to An Bord Pleanála for permission for a strategic housing development on lands at Back Road and Kinsealy Lane, Kinsaley, Broomfield, Malahide, Co. Dublin. The northern lands are generally bound by Ashwood Hall to the west, and the southern lands are generally bound by Hazelbrook to the west and Brookfield to the north.*

*The development will consist of the demolition of the former rugby clubhouse structure on site and the construction of a total of 415 no. residential units (252 no. houses, 135 no. apartments, and 28 no. duplex units); with 1 no. childcare facility and ancillary residential amenity facilities to be provided as follows:*

- *252 no. residential houses (192 no. 3 bed units, 48 no. 4 bed units, 12 no. 5 bed units) in detached, semi-detached, mid-terraced and end-terraced houses ranging from two to three storey in height;*
- *Apartment Blocks A & B are connected at ground and first floor level sharing an undercroft car park at ground floor level and a landscaped podium garden at first floor level, and contain a total of 110 no. units in 2 no. buildings ranging from one to five storeys in height, with Apartment Block A containing a total of 54 no. units comprising of 14 no. 1 bed units, 39 no. 2 bed units, and 1 no. 3 bed unit, and Apartment Block B containing a total of 56 no. units comprising of 14 no. 1 bed units, 40 no. 2 bed units, and 2 no. 3 bed units, with all units provided with private balconies/terraces; internal bicycle stores, bin stores and plant rooms at ground floor level; and on-street car parking and bicycle parking. Ancillary residential amenity facilities are also proposed including concierge/reception, meeting room, gym, and multi-purpose room;*
- *Apartment Block C containing a total of 25 no. units comprising of 9 no. 1 bed units, 14 no. 2 bed units and 2 no. 3 bed units, with all units provided with private balconies/terraces, in a building four storeys in height; with on-street car parking and bicycle parking; with access to a communal bin store and bike store;*
- *Duplex Block D containing a total of 12 no. units comprising of 6 no. 2 bed units and 6 no. 3 bed units, with all units provided with private balconies/terraces, with a*

*communal bin store and bike store; and 1 no. childcare facility with outdoor play area, all in a building ranging from one to three storeys in height; with residential on-street car parking; and childcare on-street drop-off area, car parking and bicycle parking;*

- *Duplex Block E containing a total of 8 no. units comprising of 4 no. 1 bed units and 4 no. 2 bed units, with all units provided with private balconies/terraces; in a three storey building; with a communal bin store and bike store, and on-street car parking;*
- *Duplex Block F containing a total of 8 no. units comprising of 4 no. 1 bed units and 4 no. 2 bed units, with all units provided with private balconies/terraces; in a three storey building; with a communal bin store and bike store, and on-street car parking.*

*The development will provide for a total of 721 no. car parking spaces within the scheme; a total of 227 no. bicycle spaces serving the apartments, duplexes and childcare facility; proposed use of the existing vehicular access off Back Road (proposed vehicular access via Ashwood Hall and Brookfield) and proposed use of the existing vehicular access off Kinsealy Lane (proposed vehicular access via Hazelbrook); proposed upgrades to public realm including footpaths, landscaping including play equipment, boundary treatments, and public lighting; and all associated engineering and site works necessary to facilitate the development including proposed upgrade of part of the existing foul drainage network in Hazelbrook, and proposed connection and associated works to the existing foul network along Kinsealy Lane which will be upgraded under planning permission Reg. Ref. F21A/0451."*

### **3.3 Identification of Potential Impacts**

The potential impacts of the proposed development of the Broomfield SHD on the Natura 2000 sites within a 15km radius of the site are assessed using the following factors:

- size and scale
- land-take
- distance from the Natura 2000 site or key features of the site
- resource requirements (water abstraction etc.)
- emissions (disposal to land, water or air)
- excavation requirements
- transportation requirements
- duration of construction, operation, decommissioning, etc.
- reduction of habitat area
- disturbance to key species
- habitat or species fragmentation

- reduction in species density
- changes in key indicators of conservation value (water quality etc.)
- climate change
- key relationships that define the structure of the sites
- key relationships that define the function of the site

These impacts on the Natura 2000 sites within a 15km radius of the site are summarised below in **Table 3.3.1**.

**Table 3.3.1. Likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on Natura 2000 sites within a 15km radius of the site by virtue of:**

<b>Size and scale</b>	None
<b>Land-take</b>	None
<b>Distance from Natura 2000 sites</b>	<p>See <b>Table 2.3.1</b></p> <p>There are eighteen European sites within a 15km radius of the lands at Broomfield as presented in <b>Table 2.3.1</b> above.</p> <p>Sixteen of the identified European sites were excluded from further assessment on the basis that potential impacts from the development of the lands at Broomfield will have no adverse effects on the integrity of these sites as defined by their status and conservation objectives as there is no pathway for likely significant effects on these sites.</p> <p>The Hazelbrook Stream is found along the southern boundary of the proposed development site. This watercourse drains to the Sluice River and discharges into Baldoyle Bay hence forming a direct hydrological connection and a pathway for potential significant effects to Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016).</p>
<b>Resource requirements (water abstraction, etc.)</b>	<p>All water requirements for this project will be provided from the mains water supply in the area.</p> <p><b>Please refer to the Engineering Assessment Report prepared by Waterman Moylan Consulting Engineers Limited.</b></p> <p><b>Existing Water Supply</b> There is an existing 12" Ø watermain located along the Back Road.</p> <p>100mm Ø HDPE spurs have been strategically provided in the sites to the west, Ashwood hall adjacent to the north site &amp; Hazelwood adjacent to the south</p>

	<p>site. These spurs have been constructed by the subject developer in anticipation servicing this application, however the constructed watermain networks external to this application in both Hazelwood and Ashwood Hall have yet to be taken in Charge.</p> <p><b>Proposed Water Supply</b></p> <p>For the north site, it is proposed to connect to the 150mm Ø watermain in the main access road, just off Back Road. It is also proposed to provide another 2 connections from the Ashwood Hall residential development to the west (100mm Ø).</p> <p>Similarly, the southern site is proposed to have 2 watermain connections (100mm Ø) to the Hazelbrook residential development on its western boundary.</p> <p>The spurs in the adjacent sites have been designed and located in anticipation of these connections from the proposed development.</p> <p>The proposed network consists of a 150mm Ø watermain running along the Main Access Roads, with a series of 100mm Ø branches and loops.</p> <p>Irish water as part of the confirmation of feasibility, have advised of minor upgrade works required to be undertaken by the applicant to facilitate the proposed development.</p> <p>There will be no extraction from natural surface or ground water sources to supply the development.</p> <p>Water requirements for the development will therefore not impact on the water levels or the hydrology of any European site.</p>
<p><b>Emissions (disposal to land, water or air)</b></p>	<p><b>This determination relies on the information provided in the</b></p>

	<p><b>Engineering Assessment Report and associated drawings prepared by Waterman Moylan Consulting Engineers Limited.</b></p> <p><b>Surface Water</b> Surface water from the site discharges into a series of boundary ditches on the perimeter of the sites. The southern catchment of the south site drains directly to the Hazelbrook Stream. Part of the northern site's drainage ditch network on the southern boundary is a static/dry ditch. This ditch attenuates flow from the north site only, it percolates any accumulated surface flow to the soil underneath and has no outfall. The remainder of the ditches drain to the Hazelbrook Stream, which is a tributary of the Sluice River that ultimately outfalls to the sea at Baldoyle Bay.</p> <p>The drainage system has been designed with the aim of providing a sustainable drainage solution ensuring, in so far as feasible, that the development has a minimal impact on the existing public surface water sewer system. The proposed development has been designed to incorporate best drainage practice.</p> <p>It is proposed to incorporate a Storm Water Management Plan through the use of various SuDS techniques to treat and minimise surface water runoff from the site.</p> <p>It is proposed to construct a SW drainage network that will service and attenuate the development internally before discharging at the current greenfield (or allowable) rates to the local natural ditch systems. Surface drainage layout and attenuation strategy can be reviewed on drawing numbers 18-091-P201, P202 &amp; P203. The location and extent of SuDS devices proposed for the development</p>
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	<p>can be viewed on drawing 18-091-P233.</p> <p>For storm water management purposes, it is proposed to divide the site into eight separate sub-catchments. Storm water from each catchment will be attenuated and discharge at a controlled rate, limited to the greenfield equivalent runoff or 2 l/s (whichever is greater), to ultimately outfall to the existing ditch system on the site, south catchment 2 however, will outfall directly to the Hazelbrook Stream. The proposed development will be designed to incorporate best drainage practice.</p> <p>Potential negative impacts could arise should untreated surface water enter the Hazelbrook Stream from the proposed development. These impacts have been addressed through careful consideration of the ground conditions within the site and the installation of silt traps and hydro-carbon traps as outlined in the Engineering Assessment Report and accompanying drawings prepared by Waterman Moylan Consulting Engineers, which will ensure that all surface water leaving the site is treated before it ultimately enters Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016).</p> <p><b>Foul Water</b></p> <p>The site is currently greenfield in nature. The adjacent residential developments, Hazelbrook &amp; Ashwood Hall both have foul water spurs constructed for future connections from the proposed development. These existing developments drain by gravity in a south-westerly direction to the Kinsealy Lane sewer system, which in turn currently drains to Connolly Avenue pumping station. Connolly Avenue pumps north-eastwards to the gravity network in Malahide which ultimately</p>
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	<p>drains to Malahide Wastewater Treatment Plant (WwTP).</p> <p>Irish Water have recently commissioned a new pumping station on Chapel Road discharging via a new rising main to the existing North Fringe Interceptor Sewer, at Marrsfield Avenue, Clongriffin. The Floraville pumping station, at the southern end of Kinsealy Lane has been decommissioned and will instead drain by gravity to the new Chapel Road pumping station. This has alleviated some of the constraints in the catchment.</p> <p>A new 'Castleway' pumping station on Kinsealy Lane, which would pump wastewater from the subject site and the surrounding area southwards to the newly commissioned gravity sewer at Chapel Road Pumping Station received a Full Grant of Permission from Fingal County Council on 21<sup>st</sup> January 2022 under Planning Register Reference No.: F21A/0451.. This network has capacity available to serve the subject development and diverted flows from Connolly Avenue pumping station. Construction of the pumping station will be completed prior to the connection of units from this subject application.</p> <p>It is proposed to drain wastewater from the proposed development in a south-westerly direction by gravity through a series of 150mm and 225mm sewer networks to the existing sewer network in the Ashwood and Hazelbrook developments. This will continue to drain by gravity to the existing public sewer in Kinsealy Lane, which in turn currently discharges to Connolly Avenue Pumping Station. As part of the construction of the Castleway pumping station, this foul water sewer is proposed to be diverted from Connolly Avenue pumping station to the Castleway pumping station.</p>
<b>Excavation requirements</b>	There will be no emissions or excavation

	<p>requirements arising from the construction of the development that could impact on any Natura 2000 site.</p> <p>There will be cut and fill within the development but these excavation works do not extend beyond the red line boundary of the site. Any excess topsoil or subsoil arising from the site will be disposed of to a licensed landfill facility.</p> <p>Standard site management procedures during construction will be implemented to reduce impacts from dust, noise and vibration.</p>
<b>Transportation requirements, duration of construction, operation, decommissioning, etc.</b>	There are no significant impacts to any Natura 2000 sites expected from transportation, duration of construction, operation, or decommissioning of any element of the proposed development.
<b>Reduction of habitat area</b>	None within any Natura 2000 site

Changes to any Natura 2000 sites within a 15km radius of the site arising as a result of disturbance, fragmentation, etc. are summarised below in **Table 3.3.2**.

**Table 3.3.2. Description of likely changes to the site arising as a result of:**

<b>Disturbance to key species</b>	None within Natura 2000 sites
<b>Habitat or species fragmentation</b>	None
<b>Reduction in species density</b>	None
<b>Changes in key indicators of conservation value (water quality etc.)</b>	Potential risk
<b>Climate change</b>	There are no changes expected to any Natura 2000 site or to climate change as a result of the proposed development. All new buildings will be constructed to the highest energy conservation standards.

Likely impacts on any Natura 2000 sites within a 15km radius of the site as a whole in terms of structure and functions are described below in **Table 3.3.3**.

**Table 3.3.3. Describe any likely impacts on the Natura 2000 site as a whole in terms of:**

<b>Key relationships that define the structure of the sites</b>	None
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<b>Key relationships that define the function of the site</b>	None
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The main potential impacts from the proposed development at Broomfield are a decline in water quality in the Hazelbrook Stream and in local drains, which ultimately drain to the Baldoyle SAC/SPA arising from harmful discharges and runoff from site during construction and occupation.

These local drains/watercourses are not subject to any nature conservation designations and recommendations to protect these habitats are outlined in **Section 8**.

### 3.3 Cumulative/Potential/In-Combination Impacts

Cumulative impacts of this and other developments in the Malahide area (as set out below) were considered in combination with the following planning and policy documents which were relevant to the subject lands:

- Brookfield and Ashwood Hall, which are currently under construction and adjoin the site,
- The Auburn lands which are at pre-application stage to An Bord Pleanála for 368 residential units and a creche,
- Applications for the lands at Streamstown Wood, Streamstown Lane, Malahide, Co. Dublin,
- Reg. Ref. F18A/0168 (by Cairn Homes Properties Ltd) for the construction of 32 no. dwellings (Granted),
- Live application for developing a new primary school on lands at Broomfield, Malahide under Reg. Ref. F22A/0105
- Pre-application for developing 102 no. residential units (56 no. houses, 46 no. apartments), creche and associated site works on lands at Lamorlaye, Back Road, Malahide, Co. Dublin (Case reference: TC06F.310125)
- Broomfield Local Area Plan - Appropriate Assessment Screening in accordance with Article 6 of the Habitats Directive (Fingal County Council 2010)

#### **Other plans and projects of relevance include:**

- *National Biodiversity Action Plan 2017 - 2021* (Department of Culture, Heritage and the Gaeltacht, 2017);
- *Fingal Biodiversity Action Plan 2010 - 2015* (Fingal County Council, 2010);
- *Fingal Development Plan 2017 - 2023* (Fingal County Council, 2017);
- *Broomfield Local Area Plan 2010 - 2015* (Fingal County Council, 2010); and,
- *Eastern River Basin District, River Basin Management Plan 2009 - 2015*.

As neither the proposed Broomfield SHD development, other SHD developments or any of the above developments in the locality, or other plans or

projects are expected to have an impact on the Natura 2000 sites listed in **Table 2.3.1**, the risk of in-combination effects can be ruled out.

#### **4. POTENTIAL IMPACTS ON NATURA 2000 SITES**

Potential impacts on the water features within the site (principally the local field drains and Hazelbrook Stream) which flow to the Baldoyle Bay SAC/SPA could arise during both the Construction and Operational Phases of the proposed development and hence impact on the Natura 2000 sites downstream.

##### **4.1 Construction Phase:**

The main potential impacts during this phase arise from the physical disturbance of the soil within the site during construction. There is some potential for run-off from soil and machinery on the site to the adjoining land drains and Hazelbrook Stream (and ultimately the Baldoyle Bay SAC/SPA) unless some remedial measures are put in place. There is also some potential for leaks of oil and petrol from machinery and equipment used on site to enter the Natura 2000 site.

##### **4.2 Operational Phase:**

The main potential impacts of this phase relate to potential contamination of local drains, watercourses and ultimately the Baldoyle Bay SAC/SPA from surface water run off from the site.

## 5. PROPOSED MITIGATION MEASURES

### 5.1 Sediment Control

Sediment control will be required during the construction phase to prevent silt, cement, hydro-carbons and other building materials from entering the Hazelbrook Stream and ultimately Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016).

Sediment control practices are used on building sites to prevent sand, soil, cement and other building materials from reaching waterways and water dependent habitats. Even a small amount of pollution from a site can cause significant environmental damage by killing aquatic life, silting up streams and blocking storm water pipes. Storm water can contain many pollutants which can enter our local drainage ditches, streams, rivers and marine systems, causing harm to native animals, plants, fish breeding habitats and recreational areas.

Soil erosion, sediment and litter from building sites can be major sources of storm water pollution, and can cause:

- significant harm to the environment e.g. loss of valuable foraging areas in adjoining mudflats for wintering birds
- weed infestation of waterways caused by sediment settling on the creek beds and transporting nutrients
- loss of valuable topsoil
- significant public safety problems when washed onto roads and intersections
- blocked drains creating flooding and increased maintenance costs
- damage to recreational and commercial fishing.

Sediment control usually requires little effort and results in:

- \* Cleaner waterways and healthier aquatic life.
- \* Improved site conditions.
- \* Improved wet weather working conditions.
- \* Reduced wet weather construction delays.
- \* Reduced losses from material stockpiles.
- \* Fewer mud and dust problems.

Good site management in relation to sediment control during the construction phase should prevent this from occurring and possible mitigation measures for consideration are outlined below.



**Minimising site disturbance:**

Prevention is better than cure. Careful design and an efficient construction sequence will minimise disturbance to the site. This will save money and reduce environmental impact.

Design to avoid excessive cut and fill, unnecessary clearing of vegetation and to preserve existing site drainage patterns. Clear only those areas necessary for building work to occur. Preserve grassed areas and vegetation where possible. This helps filter sediment from storm water run off before it reaches the drainage system and stops rain turning exposed soil into mud. Delay removing vegetation or commencing earthworks until just before building activities start. Avoid building activities that involve soil disturbance during periods of expected heavy or lengthy rainfall.

**Implement sediment control:**

Install sediment control measures before commencing any excavation or earth moving. Regularly maintain them until construction is complete and the site is stabilised.

*Firstly divert uncontaminated storm water away from the work area.*

Avoid contamination of the Hazelbrook Stream with sediment. Use diversion devices to reduce the volume of storm water reaching the disturbed area. Consideration may need to be given to the creation of a diversion channel to divert uncontaminated storm water around the disturbed area. Construct the channel uphill of the disturbed area with a bank on the lower side. Regularly remove sediment from the channel. Line the channel with erosion control mats or turf to prevent soil erosion or use check dams constructed from sand or gravel filled bags.

*Minimise the potential for erosion*

Construct a single vehicle entry/exit pad to minimise tracking of sediment onto roadways. Use a 150mm (minimum) layer of 40mm recycled aggregate or crushed rock. A raised hump across the entry/exit pad can be used to direct storm water run-off into a sediment trap to the side of the pad. Protect materials that may erode, particularly sand and soil stockpiles, with waterproof coverings. Contain waste in covered bins or traps made from geotextile fabric. Locate stockpiles of building materials away from drainage paths and uphill of sediment barriers. Divert run-off around stockpiles unavoidably located in drainage paths using a perimeter bank uphill. Use biodegradable erosion control mats to protect exposed earth.

*Prevent sediment-contaminated water leaving the site*

Use barriers to trap coarse sediment at all points where storm water leaves the site, before it can wash into the Hazelbrook Stream. Relocate sediment on site or dispose of it suitably. Remove accidental spills of soil or other material

immediately. Maintain vegetation elsewhere on the site in a healthy state as it can function as an additional filter for sediment. Cut brick, tile or masonry on a pervious surface such as grass or loosened soil within the property boundary. The same applies when cleaning equipment. Waste concrete, paint and other solutions used on site should be properly disposed of so they do not contaminate storm water.

## **5.2 Surface water**

Potential negative impacts could arise should surface water enter local land drains, the Hazelbrook Stream or ground water from the proposed development.

These impacts have been addressed through careful consideration of the ground conditions within the site and the SUDS design for the site as outlined in the Engineering Assessment Report and accompanying drawings prepared by Waterman Moylan Consulting Engineers Limited, which will ensure that all surface water leaving the site is treated before it ultimately enters the Baldoyle Bay SAC/SPA.

## 6. OVERALL CONCLUSIONS

Faith Wilson Ecological Consultant was commissioned by Birchwell Ltd. to prepare a Natura Impact Statement in relation to an SHD application for the development of lands at Broomfield, Back Road, Malahide, Co. Dublin.

The proposed project identified of the following Natura 2000 sites as occurring within the Zone of Influence of the development;

- Baldoyle Bay SAC (Site Code: 000199)
- Baldoyle Bay SPA (Site Code: 004016)

The screening for appropriate assessment determined possible significant effects in relation to the above sites. This screening exercise followed a methodology which examines three source > pathway > receptor chains; surface water, land and air, and groundwater pathways.

The NIS considers the potential adverse effects on the qualifying interests of European sites arising from the proposed development of lands for housing at Broomfield, Malahide.

The assessment considers whether the works, alone or in combination with other projects or plans, will have adverse effects on the integrity of a European Site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects.

Where potentially significant adverse impacts were identified, a range of mitigation and avoidance measures have been suggested to ameliorate and mitigate them.

There will be site specific measures implemented during the construction and operational phases of the project to ensure that no negative impacts arise from surface water runoff or other potential pollutants from entering the Hazelbrook Stream and ultimately Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016).

This report has concluded that provided the mitigation measures as detailed in Section 5 are implemented in full, it can be objectively concluded that the proposed development, individually or in combination with other plans or projects, will not adversely affect the integrity of Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016), in view of the sites conservation objectives, and that no reasonable scientific doubt remains as to the absence of such adverse effects.

Based on the information provided above, and by applying the precautionary principle, it was determined that it was possible to rule out likely significant impacts on any European site and therefore it was not deemed necessary to undertake any further stage of the Appropriate Assessment process.

It is concluded that provided the mitigation measures outlined are upheld, no adverse effects are likely from the SHD application for the development of lands at Broomfield, Back Road, Malahide, Co. Dublin, in combination with other project and plans on Baldoyle Bay SAC (Site Code: 000199) and Baldoyle Bay SPA (Site Code: 004016). A Stage 3 or Stage 4 assessment is therefore not required.

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