

## Appendix

### Appendix 5.1 Protected Sites for Nature Conservation in the Vicinity of the Proposed Development

European sites in the vicinity of the proposed development are listed below in Table 1, along with their qualifying/special conservation interests, reference to the most recent conservation objectives document, and their location relative to the proposed development site.

Other nationally protected sites for nature conservation in the vicinity of the proposed development are listed below in Table 2 along with the nature conservation interests for which they are designated, and their location relative to the proposed development site.

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<b>Special Area of Conservation (SAC)</b>	
<b>North Dublin Bay SAC [000206]</b> 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 1330 Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) 1395 Petalwort <i>Petalophyllum ralfsii</i> 1410 Mediterranean salt meadows ( <i>Juncetalia maritimi</i> ) 2110 Embryonic shifting dunes 2120 Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes) 2130 Fixed coastal dunes with herbaceous vegetation (grey dunes) 2190 Humid dune slacks  <i>S.I. No. 524/2019 - European Union Habitats (North Dublin Bay Special Area of Conservation 000206) Regulations 2019</i> <i>NPWS (2013) Conservation Objectives: North Dublin Bay SAC 000206. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</i>	c.5.4km north of the proposed development
<b>South Dublin Bay SAC [000210]</b> 1140 Mudflats and sandflats not covered by seawater at low tide 1210 Annual vegetation of drift lines 1310 <i>Salicornia</i> and other annuals colonising mud and sand 2110 Embryonic shifting dunes  <i>S.I. No. 525/2019 - European Union Habitats (South Dublin Bay Special Area of Conservation 000210) Regulations 2019</i> <i>NPWS (2013) Conservation Objectives: South Dublin Bay SAC 000210. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</i>	c.300m north of the proposed development
<b>Baldoyle Bay SAC [000199]</b> 1140 Mudflats and sandflats not covered by seawater at low tide 1310 <i>Salicornia</i> and other annuals colonizing mud and sand 1330 Atlantic salt meadows ( <i>Glauco-Puccinellietalia maritimae</i> ) 1410 Mediterranean salt meadows ( <i>Juncetalia maritimi</i> )  <i>S.I. No. 472/2021 - European Union Habitats (Baldoyle Bay Special Area of Conservation 000199) Regulations 2021</i> <i>NPWS (2012) Conservation Objectives: Baldoyle Bay SAC 000199. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht</i>	c.11km north of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<b>Howth Head SAC [000202]</b> 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths  <i>S.I. No. 524/2021 - European Union Habitats (Howth Head Special Area of Conservation 000202) Regulations 2021</i> NPWS (2016) Conservation Objectives: Howth Head SAC 000202. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	c.9.2km north-east of the proposed development
<b>Rockabill to Dalkey Island SAC [003000]</b> 1170 Reefs 1351 Harbour porpoise <i>Phocoena phocaena</i>  <i>S.I. No. 94/2019 - European Union Habitats (Rockabill To Dalkey Island Special Area Of Conservation 003000) Regulations 2019</i> NPWS (2013) Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.	c.5.4km east of the proposed development
<b>Glenasmole Valley SAC [001209]</b> 6210 Semi-natural dry grasslands and scrubland facies on calcareous substrates ( <i>Festuco-Brometalia</i> ) (* important orchid sites) 6410 Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) 7220 Petrifying springs with tufa formation ( <i>Cratoneurion</i> )*  <i>S.I. No. 345/2021 - European Union Habitats (Glenasmole Valley Special Area of Conservation 001209) Regulations 2021</i> NPWS (2021) Conservation objectives for Glenasmole Valley SAC [001209]. Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.13.5km west of the proposed development
<b>Ireland's Eye SAC [002193]</b> 1220 Perennial vegetation of stony banks 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts  <i>S.I. No. 501/2017 - European Union Habitats (Ireland's Eye Special Area of Conservation 002193) Regulations 2017</i> 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.	c.13.5km north of the proposed development
<b>Bray Head SAC [000714]</b> 1230 Vegetated sea cliffs of the Atlantic and Baltic coasts 4030 European dry heaths  <i>S.I. No. 620/2017 - European Union Habitats (Bray Head Special Area of Conservation 000714) Regulations 2017</i> NPWS (2017) Conservation Objectives: Bray Head SAC 000714. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.	c.12.4km south of the proposed development
<b>Wicklow Mountains SAC [002122]</b> 3110 Oligotrophic waters containing very few minerals of sandy plains ( <i>Littorelletalia uniflorae</i> ) 3160 Natural dystrophic lakes and ponds 4010 Northern Atlantic wet heaths with <i>Erica tetralix</i>	c.9.7km south of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>4030 European dry heaths  4060 Alpine and Boreal heaths  6130 <i>Calaminarian</i> grasslands of the <i>Violetalia calaminariae</i>  6230 Species-rich <i>Nardus</i> grasslands, on siliceous substrates in mountain areas (and submountain areas, in Continental Europe)  7130 Blanket bogs (* if active bog)  8110 Siliceous scree of the montane to snow levels (<i>Androsacetalia alpinae</i> and <i>Galeopsietalia ladani</i>)  8210 Calcareous rocky slopes with chasmophytic vegetation  8220 Siliceous rocky slopes with chasmophytic vegetation  91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles  1355 <i>Lutra lutra</i> (Otter)</p> <p>NPWS (2017) <i>Conservation Objectives: Wicklow Mountains SAC 002122</i>. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs.</p>	
<p><b>Knocksink Wood SAC [000725]</b>  7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*  91A0 Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles  91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)*</p> <p>S.I. No. 93/2019 - <i>European Union Habitats (Knocksink Wood Special Area Of Conservation 000725) Regulations 2019</i>  NPWS (2021) <i>Conservation objectives for Knocksink Wood SAC [000725]</i>. Generic Version 8.0. Department of Housing, Local Government and Heritage.</p>	<p>c.9.6km south of the proposed development</p>
<p><b>Ballyman Glen SAC [000713]</b>  7220 Petrifying springs with tufa formation (<i>Cratoneurion</i>)*  7230 Alkaline fens</p> <p>S.I. No. 92/2019 - <i>European Union Habitats (Ballyman Glen Special Area Of Conservation 000713) Regulations 2019</i>.  NPWS (2019) <i>Conservation Objectives: Ballyman Glen SAC 000713</i>. Version 1. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.</p>	<p>c.9.8km south of the proposed development</p>
<b>Special Protection Area (SPA)</b>	
<p><b>North Bull Island SPA [004006]</b>  A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i>  A048 Shelduck <i>Tadorna tadorna</i>  A052 Teal <i>Anas crecca</i>  A054 Pintail <i>Anas acuta</i>  A056 Shoveler <i>Anas clypeata</i>  A130 Oystercatcher <i>Haematopus ostralegus</i>  A140 Golden Plover <i>Pluvialis apricaria</i>  A141 Grey Plover <i>Pluvialis squatarola</i>  A143 Knot <i>Calidris canutus</i>  A144 Sanderling <i>Calidris alba</i>  A149 Dunlin <i>Calidris alpina</i>  A156 Black-tailed Godwit <i>Limosa limosa</i>  A157 Bar-tailed Godwit <i>Limosa lapponica</i>  A160 Curlew <i>Numenius arquata</i>  A162 Redshank <i>Tringa totanus</i></p>	<p>c.5.4km north of the proposed development</p>

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
<p>A169 Turnstone <i>Arenaria interpres</i>  A179 Black-headed Gull <i>Chroicocephalus ridibundus</i>  A999 Wetlands &amp; Waterbirds</p> <p>S.I. No. 211/2010 - European Communities (Conservation of Wild Birds (North Bull Island Special Protection Area 004006)) Regulations 2010.  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><b>South Dublin Bay and River Tolka Estuary SPA [004024]</b>  A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i>  A130 Oystercatcher <i>Haematopus ostralegus</i>  A137 Ringed Plover <i>Charadrius hiaticula</i>  A141 Grey Plover <i>Pluvialis squatarola</i>  A143 Knot <i>Calidris canutus</i>  A144 Sanderling <i>Calidris alba</i>  A149 Dunlin <i>Calidris alpina</i>  A157 Bar-tailed Godwit <i>Limosa lapponica</i>  A162 Redshank <i>Tringa totanus</i>  A179 Black-headed Gull <i>Chroicocephalus ridibundus</i>  A192 Roseate Tern <i>Sterna dougallii</i>  A193 Common Tern <i>Sterna hirundo</i>  A194 Arctic Tern <i>Sterna paradisaea</i>  A999 Wetland and Waterbirds</p> <p>S.I. No. 212/2010 - European Communities (Conservation of Wild Birds (South Dublin Bay and River Tolka Estuary Special Protection Area 004024)) Regulations 2010.  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>	c.300m north of the proposed development
<p><b>Baldoyle Bay SPA [004016]</b>  A046 Light-bellied Brent Goose <i>Branta bernicla hrota</i>  A048 Shelduck <i>Tadorna tadorna</i>  A137 Ringed Plover <i>Charadrius hiaticula</i>  A140 Golden Plover <i>Pluvialis apricaria</i>  A141 Grey Plover <i>Pluvialis squatarola</i>  A157 Bar-tailed Godwit <i>Limosa lapponica</i>  A999 Wetland and Waterbirds</p> <p>S.I. No. 275/2010 - European Communities (Conservation of Wild Birds (Baldoyle Bay Special Protection Area 004016)) Regulations 2010.  NPWS (2013) Conservation Objectives: Baldoyle Bay SPA 004016. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.</p>	c.11.1km north of the proposed development
<p><b>Wicklow Mountains SPA [004040]</b>  A098 Merlin <i>Falco columbarius</i>  A103 Peregrine <i>Falco peregrinus</i></p> <p>S.I. No. 586/2012 - European Communities (Conservation of Wild Birds (Wicklow Mountains Special Protection Area 004040)) Regulations 2012.</p>	c.9.9km south of the proposed development

European Site Name [Code] and its Qualifying interest(s) / Special Conservation Interest(s) (*Priority Annex I Habitats)	Location Relative to the Proposed Development Site
NPWS (2021) <i>Conservation objectives for Wicklow Mountains SPA [004040]</i> . Generic Version 8.0. Department of Housing, Local Government and Heritage.	
<b>Ireland's Eye SPA [004117]</b> A017 Cormorant <i>Phalacrocorax carbo</i> A184 Herring Gull <i>Larus argentatus</i> A188 Kittiwake <i>Rissa tridactyla</i> A199 Guillemot <i>Uria aalge</i> A200 Razorbill <i>Alca torda</i>  S.I. No. 240/2010 - European Communities (Conservation of Wild Birds (Ireland's Eye Special Protection Area 004117)) Regulations 2010. NPWS (2021) <i>Conservation objectives for Ireland's Eye SPA [004117]</i> . Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.13.1km north-east of the proposed development
<b>Howth Head Coast SPA [004113]</b> A188 Kittiwake <i>Rissa tridactyla</i>  S.I. No. 185/2012 - European Communities (Conservation of Wild Birds (Howth Head Coast Special Protection Area 004113)) Regulations 2012. NPWS (2021) <i>Conservation objectives for Howth Head Coast SPA [004113]</i> . Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.10.7km north-east of the proposed development
<b>Dalkey Islands SPA [004172]</b> A192 Roseate Tern <i>Sterna dougallii</i> A193 Common Tern <i>Sterna hirundo</i> A194 Arctic Tern <i>Sterna paradisaea</i>  S.I. No. 238/2010 - European Communities (Conservation of Wild Birds (Dalkey Islands Special Protection Area 004172)) Regulations 2010. NPWS (2021) <i>Conservation objectives for Dalkey Islands SPA [004172]</i> . Generic Version 8.0. Department of Housing, Local Government and Heritage.	c.5.5km south-east of the proposed development

**Table 1:** The Qualifying Interests (QIs) and Special Conservation Interests (SCIs) of the European sites in the vicinity of the proposed development site.

Designated Site Name [Code] and its nature conservation features	Location Relative to the Proposed Development Site
<b>proposed Natural Heritage Area (pNHA)</b>	
<b>Grand Canal pNHA [002104]</b>  The Grand Canal is a man-made waterway linking the River Liffey at Dublin with the Shannon at Shannon Harbour and the Barrow at Athy. The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods.	c.6.4km north-west of the proposed development site
<b>South Dublin Bay pNHA [000210]</b>  Listed under similar conservation objectives as its SAC and SPA designations.	c.300m north of the proposed development

Designated Site Name [Code] and its nature conservation features	Location Relative to the Proposed Development Site
<b>Boooterstown Marsh pNHA [001205]</b> The site is designated for its tidal habitats, rare flora and wintering bird populations.	c.1.9km north-west of the proposed development site
<b>Fitzsimon's Wood pNHA [001753]</b> The site is listed for its birch woodland which is very rare in Co. Dublin and of ecological importance.	c.4.8km west of the proposed development site
<b>Royal Canal pNHA [002103]</b> The Royal Canal is a man-made waterway linking the River Liffey at Dublin to the River Shannon near Tarmonbarry. The ecological value of the canal lies more in the diversity of species it supports along its linear habitats than in the presence of rare species. It crosses through agricultural land and therefore provides a refuge for species threatened by modern farming methods.	c.7km north of the proposed development site
<b>Dolphins, Dublin Docks pNHA [000201]</b> The site is designated for nesting common terns <i>Sterna hirundo</i> .	c.5km north of the proposed development site
<b>North Dublin Bay pNHA [000206]</b> Listed under similar conservation objectives as its SAC and SPA designation.	c.5.4km north-east of the proposed development site
<b>Dodder Valley pNHA [000991]</b> The site represents the last remaining stretch of natural riverbank vegetation on the River Dodder in the built-up Greater Dublin Area. Includes a diversity of flora and bird species as well.	c.10km west of the proposed development site
<b>Dalkey Coastal Zone and Killiney Hill pNHA [001206]</b> This site represents a fine example of a coastal system with habitats ranging from the sub-littoral to coastal heath. The flora is well developed and includes some scarce species. The islands are important bird sites. The site also has geological importance.	c.2.8km east of the proposed development site
<b>Dingle Glen pNHA [001207]</b> The importance in this site lies in the variety of habitats within a relatively small area, located in a dry valley formed by a glacial lake overflow channel.	c.6km south of the proposed development site
<b>Liffey Valley pNHA [000128]</b> The site is important for its diversity of habitats within, ranging from terrestrial to aquatic. A number of rare and threatened plant species, such as <i>Scrophularia umbrosa</i> , <i>Hypericum hirsutum</i> and <i>Lamiastrum cleobdolon</i> have been recorded from the site.	c.13.3km north-west of the proposed development site
<b>Ballybetagh Bog pNHA [001202]</b> Although the site contains samples of fen and marsh vegetation, the main interest lies in its historical value. Ballybetagh Bog has become a classical site of quaternary studies due to the intensity of research.	c.8.1km south of the proposed development site
<b>Glenasmole Valley pNHA [001209]</b> Listed under similar conservation objectives as its SAC designation.	c.13.5km south-west of the proposed development site
<b>Santry Demesne pNHA [000178]</b> The site comprises of the remnants of a former demesne woodland. The primary importance of this site is that it contains a legally protected plant species,	c.12km north of the proposed development site

Designated Site Name [Code] and its nature conservation features	Location Relative to the Proposed Development Site
<i>Hypericum hirsutum</i> , and woodland that occurs in an area where little has survived of the original vegetation.	
<b>Loughlinstown Woods pNHA [001211]</b>  This site is a good example of demesne-type mixed woodland.	c.6.1km south-east of the proposed development site
<b>Knocksink Wood pNHA [000725]</b>  Listed under similar conservation objectives as its SAC designation.	c.9.6km south-west of the proposed development site
<b>Howth Head pNHA [000202]</b>  Listed under similar conservation objectives as its SAC and SPA designations.	c.9.2km north-west of the proposed development site
<b>Ballyman Glen pNHA [000713]</b>  Listed under similar conservation objectives as its SAC designation.	c.9.8km south of the proposed development site
<b>Baldoyle Bay pNHA [000199]</b>  Listed under similar conservation objectives as its SAC and SPA designations.	c.11km north of the proposed development site
<b>Glencree Valley pNHA [001755]</b>  The site is designated for its good example of deciduous woodland and for its habitat diversity which includes the presence of upland river and boggy flushes.	c.13.6km south of the proposed development site
<b>Powerscourt Woodland pNHA [001768]</b>  Although the site includes many exotic plant species, the habitats are still of interest and support an interesting flora. The mix of semi-natural habitats and estate woodland is particularly conducive to macro-fungi. The well documented record of land management practices held by the demesnes adds to the scientific interest. The area is also of great educational value, being frequently used for teaching.	c.11.5km south of the proposed development site
<b>Sluice River Marsh pNHA [001763]</b>  This site is of importance as a relatively intact freshwater marsh, a habitat that is now rare in County Dublin.	c.13.7km north of the proposed development site
<b>Feltrim Hill pNHA [001208]</b>  The site is valuable as a geological education site as it contains a good example of a knoll-reef dating from the Carboniferous period. Knoll-reefs are known from central Ireland and Northern England but are comparatively rare.	c.14.9km north of the proposed development site

**Table 2:** Nationally designated sites in the vicinity of the proposed development.

