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# Barnhill Appropriate Assessment Screening

February 2019

Appendix 2



Fingal Development Plan 2017 - 2023

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# **BARNHILL APPROPRIATE ASSESSMENT**

## **1 INTRODUCTION**

### **1.1 BACKGROUND**

This report comprises information in support of screening for an Appropriate Assessment in line with the requirements of Article 6(3) of the EU Habitats Directive (Directive 92/43/EEC) for the proposed Draft Local Area Plan in Barnhill Dublin 15. The report has taken into consideration the European Commission's publication- *Assessment of plans and projects significantly affecting Natura 2000 sites - Methodological guidance on the provisions of Articles 6 (3) and (4) of the Habitats Directive 92/43/EEC*, Circular Letter SEA 1/08 & NPWS 1/08 from the Department of the Environment, Heritage and Local Government, the Planning and Development Acts 2000-2015 and *Appropriate Assessment of Plans and Project in Ireland -Guidance for Planning Authorities* (February 2010) from the Department of the Environment, Heritage and Local Government.

### **1.2 LEGISLATIVE CONTEXT**

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, better known as "The Habitats Directive", provides legal protection for habitats and species of European importance. This is transposed in Ireland primarily by Part XAB of the Planning and Development (Amendment) Act 2010 and the European Communities (Birds and Natural Habitats) Regulations, 2011 (S.I. 477). Articles 3 to 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as Natura 2000. These are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/ECC) as codified by Directive 2009/147/EC.

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'.*

These Articles mean that where the implementation of the proposed Draft Local Area Plan has potential to have a significant effect on a Natura 2000 site, the relevant Local authority (Fingal County Council) must ensure that an appropriate assessment is carried out in view of that site's conservation objectives. The Draft Local Area Plan can be approved by Fingal County Council only if it has been ascertained that it will not adversely affect the integrity of the Natura 2000 site(s) concerned, or in the case of a negative assessment and where there are no alternative solutions, the scheme can only be approved for reasons of overriding public interest.

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. The Habitats Directive is implemented in Ireland by the European Communities (Natural Habitats) Regulations SI 94/1997.

### 1.3 SCREENING OF APPROPRIATE ASSESSMENT

This Appropriate Assessment Screening has been prepared in accordance with the European Commission Environment DG document *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*, referred to as the "EC Article 6 Guidance Document (EC2000)". The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and 6(4) of the Habitats Directive, and are viewed as an interpretation of the EU Commission's document "*Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC*", referred to as "MN2000".

This Assessment has also taken into consideration the Department of the Environment, Heritage and Local Government publication *Appropriate Assessment of Plans and Project in Ireland – Guidance for Planning Authorities* (February 2010) and the European Communities (*Birds and Natural Habitats*) Regulations 2011 (SI 477 of 2011).

The AA process has taken account of guidance contained in the following documents:

Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. (Department of Environment, Heritage and Local Government, 2010 revision).

Appropriate Assessment under Article 6 of the Habitats Directive: Guidance for Planning Authorities. Circular NPW 1/10 and PSSP 2/10

Guidance Document on Article 6(4) of the 'Habitats Directive' 92/43/EEC. Clarification of the Concepts of Alternative Solutions, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence. Opinion of the European Commission (European Commission, January 2007)

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).

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)

Managing Natura 2000 sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC(EC Environment Directorate-General, updated April 2015)

The above referenced guidance sets out a staged process for carrying out Appropriate Assessment. To determine if Appropriate Assessment is required, documented screening is required. Screening identifies the likely effects on European Sites, if any, which would arise from a proposed plan or project. Either alone or in combination with other plans and projects.

If the conclusions at the end of screening are that there is no likelihood of significant effects occurring on any European Sites, as a result of the proposed plan or project, either alone or in combination with other plans and projects, then there would be no requirement to undertake Appropriate Assessment. However, even if screening makes a finding of no significant effects, and therefore concludes that Appropriate Assessment is not required, these findings must be clearly documented in order to provide transparency of decision-making, and to ensure the application of the 'precautionary principle'.

In complying with the obligations under Article 6(3) and following the EC2000 and MN2000 Guidelines, this AA has been structured as a stage by stage approach as follows:

Screening stage

- Description of the plan;
- Identification of Natura 2000 sites potentially affected;
- Identification and description of individual and cumulative impacts likely to result;
- Assessment of the significance of the impacts identified above on site integrity;

- Exclusion of sites where it can be objectively concluded that there will be no significant effects;
- Screening conclusion.

The Habitats Directive promotes a hierarchy of avoidance, mitigation and compensatory measures. First, the plan should aim to avoid any negative impacts on European sites by identifying possible impacts early in the plan-making, and writing the plan in order to avoid such impacts. Second, mitigation measures should be applied, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If the plan is still likely to result in adverse effects, and no further practicable mitigation is possible, then it is rejected. If no alternative solutions are identified and the plan is required for imperative reasons of overriding public interest (IROPI test) under Article 6(4) of the Habitats Directive, then compensation measures are required for any remaining adverse effect.

## **2 SCREENING OF PROPOSED LOCAL AREA PLAN (LAP)**

### **2.1 DESCRIPTION OF THE PLAN AND SITE CHARACTERISTICS**

Barnhill LAP site comprises approximately 45.64 hectares of land in Blanchardstown, Dublin 15. The lands are located approximately 3km from Blanchardstown Town Centre, 4.1km from Blanchardstown Main Street and 12.4 km from O'Connell Street, Dublin. They are situated directly south of the Hansfield SDZ lands and the Dunboyne to Clonsilla Rail line including Hansfield railway station west of the Royal Canal and the Dublin-Maynooth Rail line and east of the R149. The lands are generally flat, in agricultural use and characterised by field boundaries comprised of hedging and native tree species. There are a small number of residential houses and 1 no. industrial building located within the boundary of the Local Area Plan lands. A small stream runs in a west to east direction on the southern part of the lands to a lake in Luttrellstown Demesne, this lake drains into the River Liffey.

The land-bank is zoned:

RA – 45.64 ha -Provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure.

## **2.2 DESCRIPTION OF PROPOSED LAP**

The Plan lands will cater primarily for residential development and small scale retail/commercial/community facilities.

The LAP will provide in the region of 900-1,150 residential units which it is envisaged will equate to a population of circa 3,500 persons. The potential population, however, and density of development in this area will need to be optimised given the proximity of the lands to Hansfield Railway Station. The quantum of retail/commercial land uses will be low, i.e. small scale retail/corner shops and crèche facilities given the proximity of the existing local centres at Ongar and Clonsilla and the retail facilities in Blanchardstown Town Centre.

There is a Local Objective contained within the Fingal Development Plan 2017-2023 which states that *'Construction of houses on these lands will be dependent on the delivery of the proposed new road and bridge over the railway.'* When constructed this new road and bridge will link the Ongar Distributor Road with the R149 at the south-western corner of the lands and will open up the lands for development.

## **2.3 BRIEF DESCRIPTION OF THE NATURA 2000 SITES**

Special Areas of Conservation (SACs) have been selected for protection under the European Council Directive on the conservation of natural habitats and of wild fauna and flora (92/43/EEC) - referred to as the Habitats Directive. The Habitats Directive seeks to establish Natura 2000, a network of protected areas throughout the EU. It is the responsibility of each Member State to designate SACs to protect habitats and species, which, together with Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC), form the Natura 2000 network. The integrity of a Natura 2000 site

(referred to in Article 6.3 of the EU Habitats Directive) is determined based on the conservation status of the qualifying features of the SAC/SPA.

This section of the screening process describes the Natura 2000 sites within a 15km radius of the Plan Area. A 15km buffer zone has been chosen as a precautionary measure, to ensure that all potentially affected Natura 2000 sites are included in the screening process, which is in line with *Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities* produced by the Department of the Environment, Heritage and Local Government.

Table 2.1a and Table 2.1b lists the Natura 2000 sites that are within 15km of the plan area and Figure 1 shows their locations in relation to the plan lands. The description and qualifying features for each site area have been obtained through a review of the site synopses available from the National Parks and Wildlife Services website: <https://www.npws.ie/>

**TABLE 2.1a SPAs located within 15km of the site.**

<b>Site Code</b>	<b>Site Name</b>	<b>Approximate distance from Natura 2000 Site</b>	<b>Qualifying Feature Annex I Species</b>	<b>Likely Impacts</b>
004024	South Dublin Bay and River Tolka Estuary SPA	14.2km	Light-bellied Brent Goose, Oystercatcher, Golden Plover, Grey Plover, Knot, Sanderling, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern, Mediterranean Gull.	At a sufficient distance from the Plan area to not be impacted directly or indirectly.

## **South Dublin Bay and Rover Tolka Estuary SPA (Site code 004024):**

The South Dublin Bay and River Tolka Estuary SPA comprises a substantial part of Dublin Bay. It includes the intertidal area between the River Liffey and Dún Laoghaire, and the estuary of the River Tolka to the north of the River Liffey, as well as Booterstown Marsh. A portion of the shallow marine waters of the bay is also included.

In the south bay, the intertidal flats extend for almost 3 km at their widest. The sediments are predominantly well-aerated sands. Several permanent channels exist, the largest being Cockle Lake. A small sandy beach occurs at Merrion Gates, while some bedrock shore occurs near Dún Laoghaire. The landward boundary is now almost entirely artificially embanked. There is a bed of Dwarf Eelgrass (*Zostera noltii*) below Merrion Gates which is the largest stand on the east coast. Green algae (*Ulva* spp.) are distributed throughout the area at a low density. The macro-invertebrate fauna is well-developed, and is characterised by annelids such as Lugworm (*Arenicola marina*), *Nephtys* spp. and Sand Mason (*Lanice conchilega*), and bivalves, especially Cockle (*Cerastoderma edule*) and Baltic Tellin (*Macoma balthica*). The small gastropod Spire Shell (*Hydrobia ulvae*) occurs on the muddy sands off Merrion Gates, along with the crustacean *Corophium volutator*. Sediments in the Tolka Estuary vary from soft thixotropic muds with a high organic content in the inner estuary to exposed, well-aerated sands off the Bull Wall. The site includes Booterstown Marsh, an enclosed area of saltmarsh and muds that is cut off from the sea by the Dublin/Wexford railway line, being linked only by a channel to the east, the Nutley stream. Sea water incursions into the marsh occur along this stream at high tide. An area of grassland at Poolbeg, north of Irishtown Nature Park, is also included in the site.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher, Ringed Plover, Grey Plover, Knot, Sanderling, Dunlin, Bar-tailed Godwit, Redshank, Black-headed Gull, Roseate Tern, Common Tern and Arctic Tern. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of the SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The site is an important site for wintering waterfowl, being an integral part of the internationally important Dublin Bay complex – all counts for wintering waterbirds are five year mean peaks for the period 1995/96 to 1999/2000. Although birds regularly commute between the south bay and the north bay,

recent studies have shown that certain populations which occur in the south bay spend most of their time there. An internationally important population of Light-bellied Brent Goose (525) occurs regularly and newly arrived birds in the autumn feed on the Eelgrass bed at Merrion. The site supports nationally important numbers of a further nine species: Oystercatcher (1,263), Ringed Plover (161), Grey Plover (183), Knot (1,151), Sanderling (349), Dunlin (2,753), Bar-tailed Godwit (866), Redshank (713) and Black-headed Gull (3,040). Other species occurring in smaller numbers include Great Crested Grebe (21), Curlew (397) and Turnstone (75).

South Dublin Bay is a significant site for wintering gulls, with a nationally important population of Black-headed Gull, but also Common Gull (330) and Herring Gull (348). Mediterranean Gull is also recorded from here, occurring through much of the year, but especially in late winter/spring and again in late summer into winter.

Both Common Tern and Arctic Tern breed in Dublin Docks, on a man-made mooring structure known as the E.S.B. dolphin – this is included within the site. Small numbers of Common Tern and Arctic Tern were recorded nesting on this dolphin in the 1980s. A survey of the dolphin in 1995 recorded Common Tern nesting here in nationally important numbers (52 pairs). The breeding population of Common Tern at this site has increased, with 216 pairs recorded in 2000. This increase was largely due to the ongoing management of the site for breeding terns. More recent data highlights this site as one of the most important Common Tern sites in the country with over 400 pairs recorded here in 2007.

South Dublin Bay is an important staging/passage site for a number of tern species in the autumn (mostly late July to September). The origin of many of the birds is likely to be the Dublin breeding sites (Rockabill and the Dublin Docks) though numbers suggest that the site is also used by birds from other sites, perhaps outside the state. This site is selected for designation for its autumn tern populations: Roseate Tern (2,000 in 1999), Common Tern (5,000 in 1999) and Arctic Tern (20,000 in 1996).<sup>77</sup>

The South Dublin Bay and River Tolka Estuary SPA is of ornithological importance as it supports an internationally important population of Light-bellied Brent Goose and nationally important populations of a further nine wintering species. Furthermore, the site supports a nationally important colony of breeding Common Tern and is an internationally important passage/staging site for three tern species. It is of note that four of the species that regularly

occur at this site are listed on Annex I of the E.U. Birds Directive, i.e. Bar-tailed Godwit, Common Tern, Arctic Tern and Roseate Tern.

**TABLE 2.1b SACs located within 15km of the site.**

Site Code	Site Name	Approximate distance for Plan Area	Qualifying Feature		Likely Impacts
			Annex I Species/Habitat	Annex II habitat	
001209	Glenasmole	14.6 km	Petrifying springs and orchid-rich calcareous grasslands  Molinia (Purple Moor-grass) meadows		At a sufficient distance from the Plan area to not be impacted directly or indirectly
001398	Rye Water Valley/Cartron	3.3km	Kingfisher	Vertigo angustior; Vertigo moulinsiana. Mineral spring	At a sufficient distance from the Plan area to not be impacted directly or indirectly

**Glenasmole Valley (Site Code 001209):**

Glenasmole Valley in south Co. Dublin lies on the edge of the Wicklow uplands, approximately 5 km from Tallaght. The River Dodder flows through the valley and has been impounded here to form two reservoirs which supply water to south Dublin. The non-calcareous bedrock of the Glenasmole Valley has been overlain by deep drift deposits which now line the valley sides. They are partly covered by scrub and woodland, and on the less precipitous parts, by a herb-rich grassland. There is much seepage through the deposits, which brings to the

surface water rich in bases, which induces local patches of calcareous fen and, in places, petrifying springs.

At this site, examples of calcareous fen and flush occur between the two reservoirs, where sedges (including *Carex flacca* and *C. panicea*) are joined by such species as Grass-of-parnassus (*Parnassia palustris*), Few-flowered Spike-rush (*Eleocharis quinqueflora*), Zig-zag clover (*Trifolium medium*) and the scarce Fen Bedstraw (*Galium uliginosum*). Tufa depositing springs are long-known from the site, along the valley sides, and some have substantial tufa mounds and banks. Tufa formation is also known from small streams within the woodland at the site. Within the hazel woods, and associated with the springs and flushes, a distinctive flora with Marsh Hawk's-beard (*Crepis paludosa*) and luxuriant stands of Great Horsetail (*Equisetum telmateia*) has developed. Orchid-rich grassland occurs in the drier parts of this site and in places grades into *Molinia* meadow. Orchids recorded in these habitats include Frog Orchid (*Coeloglossum viride*), Northern Marsh-orchid (*Dactylorhiza purpurella*), Fragrant Orchid (*Gymnadenia conopsea*), Marsh Helleborine (*Epipactis palustris*), Early-purple Orchid (*Orchis mascula*) and Greater Butterfly Orchid (*Platanthera chlorantha*). Two further orchid species, both Red Data Book-listed, have also been found here, Green-winged Orchid (*Orchis morio*) and Small-white Orchid (*Pseudorchis albida*). Common grasses in the sward include Sweet Vernal-grass (*Anthoxanthum odoratum*), Creeping Bent (*Agrostis stolonifera*) and Crested Dog's-tail (*Cynosurus cristatus*). Other species which occur are Common Bird's-foot-trefoil (*Lotus corniculatus*), Kidney Vetch (*Anthyllis vulneraria*), Common Restharrow (*Ononis repens*), Yellow-wort (*Blackstonia perfoliata*) and Autumn Gentian (*Gentianella amarella*). While much of the calcareous grassland has been improved to some extent for agriculture, a suite of typical species still remain. The areas of *Molinia* meadows at the site occur associated with the grasslands on the valley sides, and in particular in seepage and flushed areas. Typical and indicative species include Greater Bird's-foot-trefoil (*Lotus uliginosus*), Tormentil (*Potentilla erecta*), Purple Moor-grass (*Molinia caerulea*), Sharp-flowered Rush (*Juncus acutiflorus*), Adder's-tongue (*Ophioglossum vulgatum*), Meadow Thistle (*Cirsium dissectum*) and Fen Bedstraw. As noted above, orchids are frequent in the grasslands at this site. Woodland occurs in patches around the site. On the east side of the valley, below the northern lake, a Hazel (*Corylus avellana*) wood has developed on the unstable calcareous slopes and includes other species such as Ash (*Fraxinus excelsior*), Downy Birch (*Betula pubescens*), Goat Willow (*Salix caprea*) and (Irish) Whitebeam (*Sorbus hibernica*). Spring Wood-rush (*Luzula pilosa*), Wood Speedwell

(*Veronica montana*) and Bramble (*Rubus fruticosus* agg.) are present in the ground flora. Wet semi-natural broadleaved woodland is also found around the reservoirs and includes Alder (*Alnus glutinosa*) and willow (*Salix* spp.), with Yellow Iris (*Iris pseudacorus*), horsetails (*Equisetum* spp.), Bramble and localised patches of Japanese Knotweed (*Reynoutria japonica*), an introduced and invasive species. The lake shore vegetation is not well developed, which is typical of a reservoir. There are occasional patches of Reed Canary-grass (*Phalaris arundinacea*) and Purple-loosestrife (*Lythrum salicaria*), which are more extensive around the western shore of the northern lake, along with Common Marsh-bedstraw (*Galium palustre*) and Water Mint (*Mentha aquatica*). Other vegetation includes Shoreweed (*Littorella uniflora*) and the scarce Water Sedge (*Carex aquatilis*). As well as the Green-winged Orchid and Small-white Orchid, two other threatened species which are listed in the Irish Red Data Book occur in the site, Yellow Archangel (*Lamium galeobdolon*) and Yellow Bird's-nest (*Monotropa hypopitys*). Small-white Orchid is legally protected under the Flora (Protection) Order, 1999.

The site provides excellent habitat for bats, with at least four species recorded: Pipistrelle, Leisler's, Daubenton's and Brown Long-eared. Otter occurs along the river and reservoirs. The site supports Kingfisher, an Annex I species under the E.U. Birds Directive. Glenasmole Valley contains a high diversity of habitats and plant communities, including three habitats listed on Annex I of the E.U. Habitats Directive. The presence of four Red Data Book plant species further adds to the value of the site, as does the presence of populations of several mammal and bird species of conservation interest.

### **Rye Water Valley/Carton (Site Code 001398):**

This site is located between Leixlip and Maynooth. It extends along the Rye Water, a tributary of the River Liffey. The Rye Water in Carton Estate is dammed at intervals, creating a series of lakes. Reed Sweet-grass (*Glyceria maxima*) is frequent around the lakes, along with Yellow Iris (*Iris pseudacorus*), Reed Canary-grass (*Phalaris arundinacea*), Bulrush (*Typha latifolia*), Water Forget-me-not (*Myosotis scorpioides*), Marsh-marigold (*Caltha palustris*) and starworts (*Callitriche* spp.). Along the remainder of the site the river has been dredged and much of the reed fringe removed. To the north-west of Carton Bridge a small clump of willows (*Salix* spp.), with dogwood (*Cornus* sp.), Alder (*Alnus glutinosa*), Ash (*Fraxinus excelsior*) and Elder (*Sambucus nigra*) occurs. The ground flora found

here includes Golden Saxifrage (*Chrysosplenium oppositifolium*), Meadowsweet (*Filipendula ulmaria*), Common Valerian (*Valeriana officinalis*), Wavy Bitter-cress (*Cardamine flexuosa*) and Bittersweet (*Solanum dulcamara*). The woods on Carton Estate are mostly old demesne woods with both deciduous and coniferous species. Conifers, including some Yew (*Taxus baccata*) – a native species, are dominant, with Beech (*Fagus sylvatica*), oak (*Quercus* sp.), Sycamore (*Acer pseudoplatanus*), Ash and Hazel (*Corylus avellana*) also occurring. The ground flora is dominated by Ivy (*Hedera helix*), with such species as Hedge Woundwort (*Stachys sylvatica*), Wood Speedwell (*Veronica montana*), Woodruff (*Galium odoratum*), Wood Avens (*Geum urbanum*), Common Dog-violet (*Viola riviniana*), Wild Angelica (*Angelica sylvestris*), Ramsons (*Allium ursinum*), Ground-ivy (*Glechoma hederacea*) and Ivy Broomrape (*Orobanche hederae*) also found. Hairy St. John's-wort (*Hypericum hirsutum*), a species legally protected under the Flora (Protection) Order, 1999, occurs in Carton Estate and there is an old record from the estate for the similarly protected Hairy Violet (*Viola hirta*). However, this latter species has not been recorded from the site in recent years. Another species listed in the Red Data Book, Green Figwort (*Scrophularia umbrosa*), occurs on the site in several locations by the Rye Water. The woods at Carton Demesne are the site of a rare Myxomycete fungus, *Diderma deplanatum*. The marsh, mineral spring and seepage area found at Louisa Bridge supports a good diversity of plant species, including stoneworts, Marsh Arrowgrass (*Triglochin palustris*), Purple Moor-grass (*Molinea caerulea*), sedges (*Carex* spp.), Common Butterwort (*Pinguicula vulgaris*), Marsh Lousewort (*Pedicularis palustris*), Grass-of-parnassus (*Parnassia palustris*) and Cuckooflower (*Cardamine pratensis*). The mineral spring found at the site is of a type considered to be rare in Europe and is a habitat listed on Annex I of the E.U. Habitats Directive. The Red Data Book species Blue Fleabane (*Erigeron acer*) is found growing on a wall at Louisa Bridge. Within the woods, Blackcap, Woodcock and Long-eared Owl have been recorded. Little Grebe, Coot, Moorhen, Tufted Duck, Teal and Kingfisher, the latter a species listed on Annex I of the E.U. Birds Directive, occur on and about the lake. The Rye Water is also a spawning ground for Trout and Salmon, and the rare, White-clawed Crayfish (*Austropotamobius pallipes*) has been recorded at Leixlip. The latter two species are listed on Annex II of the E.U. Habitats Directive. The rare Narrow-mouthed Whorl Snail and Desmoulin's Whorl Snail occur in marsh vegetation near Louisa Bridge. Both are rare in Ireland and in Europe, and are listed on Annex II of the E.U. Habitats Directive. The scarce dragonfly, *Orthetrum coerulescens*, has also been recorded at Louisa Bridge. The

conservation importance of the site lies in the presence of several rare and threatened plant and animal species, and the presence of petrifying springs, a habitat type listed on Annex I of the E.U. Habitats Directive. The woods found on Carton Estate and their birdlife are of additional interest.

## **2.4 CONSERVATION OBJECTIVES OF THE NATURA 2000 SITES**

### **2.4.1 CONSERVATION OBJECTIVES OF THE SACS**

The integrity of a Natura 2000 site (referred to in Article 6.3 of the EU Habitats Directive) is determined based on the conservation status of the qualifying features of the SAC. The following Conservation Objectives for the SACs located within 15 km of the subject lands are set out below:

#### **Rye Water Valley/Carton SAC (Site Code 001398)(Generic Version 6.0, 21st February 2018)**

- To maintain or restore the favourable conservation status of the Annex 1 habitats and/or the Annex II species for which the SAC has been selected..
- *Petrifying springs with tufa formation (Cratoneurion)*
- *Narrow-mouthed Whorl Snail (vertigo angustior)*
- *Desmoulin's Whorl Snail (Vertigo moulinsiana)*

#### **Glenasmole SAC (Site Code 001209)(Generic Version 6.0, 21st February 2018)**

- 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:
- *Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco Brometalia) (\* important orchid sites)\**
- *Molinia meadows on calcareous, peaty or clayey-silt-laden soils (Molinion caeruleae)*
- *Petrifying springs with tufa formation (Cratoneurion)\**  
\* denotes a priority habitat

## 2.4.2 CONSERVATION OBJECTIVES OF SPAs

Conservation objectives for SPAs are available from the NPWS. The following Conservation Objectives for the SPAs located within 15 km of the subject site are set out below:

### South Dublin Bay and River Tolka Estuary SPA (Site code 004024)(Version 1, 9<sup>th</sup> March 2015):

- To maintain the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA
- To maintain the favourable conservation condition of the wetland habitat in South Dublin Bay and River Tolka Estuary SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

*Branta bernicla hrota* [wintering]

*Haematopus ostralegus* [wintering]

*Charadrius hiaticula* [wintering]

*Pluvialis squatarola* [wintering]

*Calidris canutus* [wintering]

*Calidris alba* [wintering]

*Calidris alpina* [wintering]

*Limosa lapponica* [wintering]

*Tringa totanus* [wintering]

*Chroicocephalus ridibundus* [wintering]

*Sterna dougallii* [passage]

*Sterna hirundo* [breeding + passage ]

*Sterna paradisaea* [passage]

Wetlands

## 2.5 ASSESSMENT CRITERIA

### 2.5.1 DIRECT, INDIRECT OR SECONDARY IMPACTS

Table 2.1a and 2.1b list the Natura 2000 sites within 15km of the Plan area. There are 3 sites in total, 2 no. SACs and 1 no. SPA. None of the Natura 2000

sites lie within the boundaries of the Draft Plan lands, therefore no direct impacts will occur through landtake or fragmentation of habitats. The nearest site, the Rye Water Valley/Carton SAC is located approximately 3.3 km away. This Special Area of Conservation is situated on the River Rye, a tributary of the River Liffey upstream from where any outflows from the LAP lands occur into the river. Negative impacts on this site and equally on Glenasmole SAC in South Dublin are therefore highly unlikely by virtue of distance from Barnhill and the absence of source-pathway-receptors.

The Liffey River discharges into Dublin Bay through the South Dublin Bay and River Tolka SPA. Given the configuration of the SPA boundary this Natura 2000 site is within the 15km boundary as the crow flies whilst its nearest point to the subject lands is in excess of 17 km from the Barnhill lands. The River Liffey has the potential to act as a pathway where pollutants from the subject lands may enter the SPA.

#### Flood Risk and Sustainable Urban Drainage Systems

Under Section 28 of the Planning and Development Act 2000, as amended, statutory guidelines entitled *The Planning System and Flood Risk Management Guidelines for Planning Authorities* were published by the DoEHLG (November 2009). These guidelines require planning authorities to introduce flood risk assessment as an integral and leading element of the plan making process. The Barnhill LAP lands were assessed for risk of flooding in accordance with these Guidelines as updated by the Departmental Circular PL 2/2014. The LAP lands are characterised by their location adjacent to a stream (Barnhill Stream) that flows in a west to east direction under the Royal Canal and enters a lake at Luttrellstown Demesne, this lake empties into the River Liffey. The stream has been surveyed as part of the Liffey river catchment and for the Local Area Plan and a flood risk map for this stream has been prepared for the 1% (1 in 100 yr) probability of flooding and the 0.1% (1 in 1000 year probability of flooding). The Flood Risk Assessment, carried out by Garland Consultancy on behalf of Fingal, is contained in Appendix 4 of the LAP. The LAP sets out general policy requirements contained in the Guidelines to inform strategic land-use decisions with the purpose of ensuring that flood risk management is fully integrated into the plan. The Flood Risk Assessment has informed the identification of areas of the LAP lands that are appropriate and inappropriate for development.

In accordance with the Fingal Development Plan 2017-2023 measures to prevent water pollution will be incorporated into any development proposals on the lands. Accompanying this LAP is a Sustainable Urban Drainage Systems (SUDS) Strategy which gives advice and best practice examples of SUDS design and provides SUDS policies for development within the LAP area (Appendix 5). Implementation of Sustainable Urban Drainage Systems (SUDS) within any future development of the lands requires the restriction of surface water runoff in accordance with the Greater Dublin Strategic Drainage Study and the requirements of the 'Greater Dublin Region Code of Practice for Drainage Works, Version 6.0, April 2006', Section 16. The maximum permitted discharge from any new development of the site will be restricted to that of a Greenfield site.

The implementation of sustainable urban drainage on the LAP lands will ensure that the developed lands will not cause pollution within the Liffey River Catchment or further exacerbate downstream flooding and will improve water quality, therefore ensuring the protection of the downstream South Dublin Bay and River Tolka SPA.

#### Water Supply

The lands will be serviced by a clean water supply emanating from the Leixlip Water Treatment Plant. There are existing public mains on the R149 and the internal rural road running to the south of the Dublin-Dunboyne Railway Line. Any new development proposed must be adequately serviced with a suitable quantity and quality of drinking water supply. Development will be limited to that which can be provided for, based on available water supply. Proposals for all new hard and soft developments will need to demonstrate that the existing network and associated way leaves are protected from impacts to prevent network damage. New watermain layouts must be in accordance with the most recent version of Irish water's "Code of Practice" and "Standard Details" for Water infrastructure." In order to limit unnecessary water usage, leakage and excessive consumption, a Water Management and Conservation Plan will be required from the developer detailing how best practice in water conservation can be achieved to include both water mains and internal plumbing. New development should, where feasible, install suitable water conservation measures. The use of rainwater harvesting, particularly in commercial developments, is to be encouraged.

## Sewer

The LAP lands are part of the 9C sewer catchment in Blanchardstown which ultimately discharges to the Regional Waste Water Treatment Plant at Ringsend via The Liffey Siphons. Ringsend Waste Water Treatment Plant, at present, is operating at its design capacity. Irish Water has current proposals to increase the capacity of the plant from 1.64 million PE (population equivalent) to 2.4 million PE by the use of Aerobic Granular Sludge (AGS) technology. The utility has recently invested €70 million in upgrading the Ringsend plant. In the longer term the Greater Dublin Drainage Project, aims to provide strategic drainage infrastructure required for the Greater Dublin Area (GDA). It is currently estimated that construction of a new regional wastewater treatment plant in the Fingal area and the orbital pipelines to serve the GDA will be completed by 2024. The Urban Wastewater Treatment Directive requires the collection and high level treatment of wastewater, specifically those to be discharged to sensitive waters such as Dublin Bay. The terms of the EPA discharge license (2010) granted to Dublin City Council and subsequently novated to Irish Water in respect of Ringsend Waste Water Treatment Plant reinforces this requirement.

The requirement that there is drainage capacity available in the network prior to granting a planning permission for any development will apply to all developments within the LAP. The natural drainage of the LAP lands is in a southerly direction towards the River Liffey, however the existing main drainage network is located to the north of the lands, there maybe therefore a requirement for a pumping station to be located in the southern part of the lands. The 9C sewer currently has limited capacity and suffers greatly from the effects of infiltration due to storm water ingress and a rise in the water table during intense rainfall events. Duplication of the sewer is currently under way. The proposed project represents an investment of approximately €50 million by Irish Water and will involve the upgrade of the existing sewer network currently serving Blanchardstown and the surrounding catchment areas. This will increase the capacity of the existing sewer serving the area. The sewer is further constrained by the Liffey Siphons which are also at capacity. The Liffey Siphons Rehabilitation Project provides for the rehabilitation of the 3.4 km of twin 900mm diameter foul sewers. The contract has been awarded to upgrade these by Irish Water with initial works already commenced.





### **3.0 PRELIMINARY SCREENING OUTCOME**

A screening process in accordance with Article 6(3) of the Habitats Directive has been carried out to determine whether a full appropriate assessment is required for the proposed Draft LAP. All Natura 2000 sites within a 15km radius of the site were considered. On the basis of the findings of this Screening for Appropriate Assessment of Natura 2000 sites, it is concluded that the proposed development will not have a significant effect on the Natura 2000 network and a Stage 2 Appropriate Assessment is not required.

# Legend

15km buffer

## NPWS Heritage Designations

- NHA
- PNHA
- SAC
- SPA

