

Appendix 2:

Appropriate Assessment Screening

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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) of the draft Local Area Plan (LAP) for Kilmartin, Blanchardstown, Dublin 15. The report has taken into consideration the European Commissions 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 2000-2010 and *Appropriate Assessment of Plans and Projects in Ireland –Guidance for Planning Authorities* (February 2010) from the Department of the Environment, Heritage and Local Government.

1.2 KILMARTIN LOCAL AREA PLAN

Fingal County Council is preparing a draft LAP for lands at Kilmartin, Blanchardstown. The lands comprise approximately 78.51 hectares, and are partly zoned ‘RA’ - *Provide for new residential communities in accordance with approved local area plans and subject to the provision of the necessary social and physical infrastructure* (72.44ha) and partly zoned LC - *Protect, provide for and/ or improve local centre facilities*’ (6.07ha) in the Fingal Development Plan 2011-2017.

The purpose of the Draft LAP is to set out the optimal development strategy for the proper planning and sustainable development of these lands, which are located in the north-western area of Blanchardstown and north of the M2-N3 link (currently under construction).

The Draft LAP sets out the development framework for future development within the Plan Area. It will set out the parameters for future development on these lands in terms of layout, access, vehicular access, pedestrian permeability, residential density, building heights, infrastructural requirements, public open space; urban design, and community and social facilities. The population is expected to be in excess of 5,000 persons.

1.3 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. 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).

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

1.4 STAGES OF APPROPRIATE ASSESSMENT

This Appropriate Assessment has been prepared in accordance with the European Commission Environment Director General 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 Projects in Ireland – Guidance for Planning Authorities* (February 2010).

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

2.1 DESCRIPTION OF THE PLAN AND SITE CHARACTERISTICS

The lands are situated approximately 11.5km from Dublin city centre and 4 km from Blanchardstown Town Centre. They are located directly to the north of the proposed N2-N3 link, Tyrrelstown Local Centre and a tranche of designated open space lands situated to the north of the residential area of Tyrrelstown. The land is bounded by agricultural land to the west and Hollystown Golf Club and Hollystown RV to the north.

The land is flat and largely featureless, containing a number of hedgerows with a number of individual trees, none of which are identified in the Development Plan for preservation. The land bank has a good orientation; the east-west configuration gives good exposure to southern sunlight. The site is partially crossed by overhead lines and pylons which have a significant negative impact.

2.2 BRIEF DESCRIPTION OF THE NATURA 2000 SITES

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 1 and Table 2 lists the Natura 2000 sites that are within 15km of the plan area and the accompanying map shows their locations in relation to the plan area. The qualifying features for each site area have been obtained through a review of the site synopses available from the NPWS website.

TABLE 1: SPAs located within 15km of the site.

Site Code	Site Name	Approximate distance from Natura 2000 Site	Qualifying Feature Annex I Species	Likely Impacts
004015	Rogerstown Estuary SPA	14.7km	Light-bellied Brent Goose, Greylag Goose, Shelduck, Shoveler, Oystercatcher, Ringed Plover, Grey Plover, Knot, Dunlin, Redshank, Black-tailed Godwit, Wetland & Waterbirds.	No potential source-pathway-receptor links exist between the LAP lands and the SPA. The SPA will not be impacted directly or indirectly
004025	Broadmeadow/Swords Estuary SPA	12.25km	Golden Plover, Bar-tailed Godwit and Ruff.	No potential source-pathway-receptor links exist between the LAP lands and the SPA. The SPA will not be impacted directly or indirectly.

004006	North Bull Island SPA	14.85km	Light-bellied Brent Goose, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull.	The Pinkeen river is a tributary of the Tolka river, which flows directly into North Dublin Bay. A Sustainable Drainage System (SuDS) as outlined in the Greater Dublin Strategic Drainage Study will be implemented in the LAP area. The SPA will not be impacted directly or indirectly
004024	South Dublin Bay and River Tolka Estuary SPA	14.78km	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.	No potential source-pathway-receptor links exist between the LAP lands and the SPA. The SPA will not be impacted directly or indirectly

Rogerstown Estuary (Site Code 004015)

Rogerstown estuary is situated about 2 km north of Donabate in north County Dublin. It is a relatively small, funnel shaped estuary separated from the sea by a sand and shingle peninsula and extending eastwards beyond the low water mark to include an area of shallow marine water. The estuary receives the waters of the Ballyboghil and Ballough rivers, both of which flow through intensive agricultural catchments. The estuary has a wide salinity range, from near full sea water to near full fresh water. The estuary is divided by a causeway and narrow bridge, built in the 1840s to carry the Dublin-Belfast railway line. The site contains good examples of a number of estuarine and coastal habitats listed on Annex I of the E.U. Habitats Directive.

At low tide extensive intertidal sand and mud flats are exposed and these provide the main food resource for the wintering waterfowl. The intertidal flats of the estuary are mainly of sands, with soft muds in the north-west sector and along the southern shore. Associated with these muds are stands of Common Cord-grass (*Spartina anglica*). Green algae (mainly *Enteromorpha* spp. and *Ulva lactuca*) are widespread and form dense mats in the more sheltered areas. The intertidal vascular plant Beaked Tasselweed (*Ruppia maritima*) grows profusely in places beneath the algal mats and is grazed by herbivorous waterfowl (notably Brent Geese and Wigeon). The Lugworm (*Arenicola marina*) is common in the outer estuary and large Mussel beds (*Mytilus edulis*) occur at the outlet to the sea.

Salt marsh fringes parts of the estuary, especially its southern shores. Common plant species of the saltmarsh include Sea Rush (*Juncus maritimus*), Sea Purslane (*Halimione portulacoides*) and Common Saltmarsh-grass (*Puccinellia maritima*). Rogerstown Estuary is an important winter waterfowl site and supports a population of Pale-bellied Brent Goose of international importance (1194 - all counts given are average peaks over the five winters 1996/97 – 2000/01). A further 14 species have populations of national importance as follows: Greylag Goose 87, Shelduck 78, Shoveler 72, Oystercatcher 1794, Ringed Plover 188, Grey Plover 343, Knot 2159, Sanderling 89, Dunlin 3128, Redshank 674, Lapwing 2166, Black-tailed Godwit 212, Greenshank 26 and Turnstone 188. The Greylag Geese are part of a larger population which spends most of the winter on Lambay Island. Other species which occur regularly in significant numbers include Wigeon 411, Teal 379, Mallard 267, Redbreasted Merganser 22, Golden Plover 159 and Curlew 245. The numbers of Golden Plover and Lapwing can at times be considerably higher than the averages given above. The presence of Golden Plover is of note as this species is listed on Annex I of the E.U. Birds Directive. Large numbers of gulls, mostly Herring, Great Blackbacked and Black-headed, are attracted to the area, partly due to the presence of an adjacent local authority landfill site.

Some of the wader species also occur on passage, notably Black-tailed Godwit with numbers often exceeding 300 in April. The estuary is a regular staging post for

scarce migrants, especially in autumn when Green Sandpiper, Ruff, Little Stint, Curlew Sandpiper and Spotted Redshank may be seen. Shelduck breed within the site.

Rogerstown Estuary is an important link in the chain of estuaries on the east coast. It supports an internationally important population of Brent Goose and a further 14 species in numbers of national importance. Bird populations have been well monitored since the 1980s and the site is counted at monthly intervals each winter (September to March) as part of the Irish Wetland Bird Survey (I-WeBS). The site is a statutory Nature Reserve and a candidate Special Area of Conservation under the E.U. Habitats Directive.

Broadmeadow/Swords Estuary SPA (Site Code 004025)

This site is situated in north Co. Dublin, between the towns of Malahide and Swords. It is the estuary of the River Broadmeadow, a substantial river which drains a mainly agricultural, though increasingly urbanised, catchment. A railway viaduct, built in the 1800s, crosses the site and has led to the inner estuary becoming lagoonal in character and only partly tidal. Much of the outer part of the estuary is well-sheltered from the sea by a large sand spit, known as "The Island". This spit is now mostly converted to golf-course. The outer part empties almost completely at low tide and there are extensive intertidal flats exposed. The site extends eastwards to the rocky shore at Robswalls. Substantial stands of eelgrass (both *Zostera noltii* and *Z. angustifolia*) occur in the sheltered part of the outer estuary, along with Tasselweed (*Ruppia maritima*). Green algae, mostly *Enteromorpha* spp. and *Ulva lactuca*, are frequent on the sheltered flats. Common Cord-grass (*Spartina anglica*) is well established in the outer estuary and also in the innermost part of the site. The intertidal flats support a typical macroinvertebrate fauna, with polychaete worms (*Arenicola marina* and *Hediste diversicolor*), bivalves such as *Cerastoderma edule*, *Macoma balthica* and *Scrobicularia plana*, the small gastropod *Hydrobia ulvae* and the crustacean *Corophium volutator*. Salt marshes, which provide important roosts during high tide, occur in parts of the outer estuary and in the extreme inner part of the inner estuary. These are characterised by such species as Sea Purslane (*Halimione portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Sea Arrowgrass (*Triglochin maritima*) and Common Saltmarsh-grass (*Puccinellia maritima*). This site is of high importance for wintering waterfowl and supports a particularly good diversity of species. It has an internationally important population of Brent Goose (956) or 4.8% of the national total (figures given here and below are average maximum counts for the five winters 1995/96-1999/00) and nationally important populations of a further 12 species as follows: Shelduck (439), Pintail (58), Goldeneye (215), Red-breasted Merganser (105), Oystercatcher (1,493), Golden Plover (1,843), Grey Plover (201), Knot (915), Dunlin (1,594), Black-tailed Godwit (409), Redshank (581) and Greenshank (38). A range of other species occur in numbers of regional importance, including Great Crested Grebe, Mute Swan, Pochard, Ringed Plover, Lapwing, Bar-tailed Godwit, Curlew and Turnstone. The high numbers of diving

ducks reflects the lagoon-type nature of the inner estuary, and this is one of the few sites in eastern Ireland where substantial numbers of Goldeneye can be found. The estuary also attracts on a regular basis migrant wader species such as Ruff, Curlew Sandpiper, Spotted Redshank, Green Sandpiper and Little Stint. These occur mainly in autumn, though occasionally in spring and winter. Breeding birds of the site include Ringed Plover, Shelduck and Mallard. Up to the 1950s there was a major tern colony at the southern end of Malahide Island. Grey Herons breed nearby and feed regularly within the site. The inner part of the estuary is heavily used for water sports, which causes disturbance to the bird populations. A section of the outer estuary has been in-filled for a marina and housing development. Broadmeadow/Swords Estuary SPA is a fine example of an estuarine system, providing both feeding and roosting areas for a range of wintering waterfowl. The lagoonal nature of the inner estuary is of particular value as it increases the diversity of birds which occur. The site is of high conservation importance, with an internationally important population of Brent Goose and nationally important populations of a further 12 species. Three of the species which occur regularly (Golden Plover, Bar-tailed Godwit and Ruff) are listed on Annex I of the E.U. Birds Directive.

North Bull Island (Site Code 004006)

This site covers all of the inner part of north Dublin Bay, with the seaward boundary extending from the Bull Wall lighthouse across to Drumleck Point at Howth Head. The North Bull Island sand spit is a relatively recent depositional feature, formed as a result of improvements to Dublin Port during the 18th and 19th centuries. It is almost 5 km long and 1 km wide and runs parallel to the coast between Clontarf and Sutton. Part of the interior of the island has been converted to golf courses. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (*Ammophila arenaria*) is dominant on the outer dune ridges. Species of the fixed dunes include Wild Pansy (*Viola tricolor*), Kidney Vetch (*Anthyllis vulneraria*), Bird's-foot Trefoil (*Lotus corniculatus*), Pyramidal Orchid (*Anacamptis pyramidalis*) and, in places, the scarce Bee Orchid (*Ophrys apifera*). A feature of the dune system is a large dune slack with a rich flora, usually referred to as the 'Alder Marsh' because of the presence of Alder (*Alnus glutinosa*) trees. The water table is very near the surface and is only slightly brackish. Sea Rush (*Juncus maritimus*) is the dominant species, with Meadowsweet (*Filipendula ulmaria*) and Devil's-bit Scabious (*Succisa pratensis*) being frequent. The orchid flora is notably diverse in this area. Saltmarsh extends along the length of the landward side of the island and provides the main roost site for wintering birds in Dublin Bay. On the lower marsh, Glasswort (*Salicornia europaea*), Common Saltmarsh-grass (*Puccinellia maritima*), Annual Seablite (*Suaeda maritima*) and Greater Sea-spurrey (*Spergularia media*) are the main species. Higher up in the middle marsh Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Sea Arrowgrass (*Triglochin maritima*) and Thrift (*Armeria maritima*) appear. Above the mark of the normal high tide, species such as Common Scurvygrass (*Cochlearia officinalis*) and Sea Milkwort (*Glaux maritima*) are found, while on the extreme upper marsh, Sea Rush and Saltmarsh Rush (*Juncus gerardi*) are dominant.

The island shelters two intertidal lagoons which are divided by a solid causeway. These lagoons provide the main feeding grounds for the wintering waterfowl. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. Tasselweed (*Ruppia maritima*) and small amounts of Eelgrass (*Zostera* spp.) are found in the lagoons. Common Cord-grass (*Spartina anglica*) occurs in places. Green algal mats (*Enteromorpha* spp., *Ulva lactuca*) are a feature of the flats during summer. These sediments have a rich macro-invertebrate fauna, with high densities of Lugworm (*Arenicola marina*) and Ragworm (*Hediste diversicolor*). Mussels (*Mytilus edulis*) occur in places, along with bivalves such as *Cerastoderma edule*, *Macoma balthica* and *Scrobicularia plana*. The small gastropod *Hydrobia ulvae* occurs in high densities in places, while the crustaceans *Corophium volutator* and *Carcinus maenas* are common. The sediments on the seaward side of North Bull Island are mostly sands and support species such as Lugworm and the Sand Mason (*Lanice conchilega*). The site includes a substantial area of the shallow marine bay waters.

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, Shelduck, Teal, Pintail, Shoveler, Oystercatcher, Ringed Plover, Golden Plover, Grey Plover, Knot, Sanderling, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Turnstone and Black-headed Gull. The site is also of special conservation interest for holding an assemblage of over 20,000 wintering waterbirds. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.

The North Bull Island SPA is of international importance for waterfowl on the basis that it regularly supports in excess of 20,000 waterfowl. It also qualifies for international importance as the numbers of three species exceed the international threshold – Light-bellied Brent Goose (1,548), Black-tailed Godwit (367) and Bartailed Godwit (1,529) (all waterfowl figures given are average maxima for the five winters 1995/96 to 1999/00). The site is the top site in the country for both of these species. A further 14 species have populations of national importance – Shelduck (1,259), Teal (953), Pintail (233), Shoveler (141), Oystercatcher (1,784), Ringed Plover (139), Golden Plover (1,741), Grey Plover (517), Knot (2,623), Sanderling (141), Dunlin (3,926), Curlew (937), Redshank (1,431) and Turnstone (157). The populations of Pintail and Knot are of particular note as they comprise more than 10% of the respective national totals. Species such as Grey Heron, Cormorant, Wigeon, Goldeneye, Red-breasted Merganser and Greenshank are regular in winter in numbers of regional or local importance. Gulls are a feature of the site during winter, especially Black-headed Gull (2,196). Common Gull (332) and Herring Gull (331) also occur here. While some of the birds also frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes, the majority remain within the site for much of the winter. The wintering bird populations have been monitored more or less continuously since the late 1960s and the site is now surveyed each winter as part of the larger Dublin Bay complex.

The North Bull Island SPA is a regular site for passage waders, especially Ruff, Curlew Sandpiper and Spotted Redshank. These are mostly observed in single figures in autumn but occasionally in spring or winter. The site formerly had an important colony of Little Tern but breeding has not occurred in recent years. Several pairs of Ringed Plover breed, along with Shelduck in some years. Breeding passerines include Skylark, Meadow Pipit,

Stonechat and Reed Bunting. The island is a regular wintering site for Short-eared Owl, with up to 5 present in some winters.

The site has five Red Data Book vascular plant species, four rare bryophyte species, and is nationally important for three insect species. The rare liverwort, *Petalophyllum ralfsii*, was first recorded from the North Bull Island in 1874 and its presence here has recently been re-confirmed. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. A well-known population of Irish Hare is resident on the island.

The main land uses of this site are amenity activities and nature conservation. The North Bull Island is one of the main recreational beaches in Co. Dublin and is used throughout the year. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. North Bull Island is also a Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site. Much of the SPA is also a candidate Special Area of Conservation. The site is used regularly for educational purposes and there is a manned interpretative centre on the island. The North Bull Island SPA is an excellent example of an estuarine complex and is one of the top sites in Ireland for wintering waterfowl. It is of international importance on account of both the total number of waterfowl and the individual populations of Lightbellied Brent Goose, Black-tailed Godwit and Bar-tailed Godwit that use it. Also of significance is the regular presence of several species that are listed on Annex I of the E.U. Birds Directive, notably Golden Plover and Bar-tailed Godwit, but also Ruff and Short-eared Owl.

South Dublin Bay and River 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 Dun 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 Dun Laoghaire. The landward boundary is now almost entirely artificially embanked. 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, Golden 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. The south bay is an important tern roost in the autumn (mostly late July to September). Birds also use the Dalkey Islands to the south. The South Dublin Bay and River Tolka Estuary SPA is of international importance for Light-bellied Brent Goose and of national importance for nine other waterfowl species.

TABLE 2: 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	
000208	Rogerstown Estuary SAC	14.7km	Mudflats and sandflats not covered by seawater at low tide; <i>Salicornia</i> and other annuals colonizing mud and sand; Mediterranean salt meadows (<i>Juncetalia maritimi</i>);- Fixed coastal dunes with herbaceous vegetation (grey dunes); Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes); and Atlantic salt meadows (<i>Glaucopuccinellietalia maritima</i>)		No potential source-pathway-receptor links exist between the LAP lands and the SAC. The SAC will not be impacted directly or indirectly
000205	Malahide Estuary	12.25km	Tidal mudflats and sandflats, Atlantic salt meadows, <i>Spartina</i> swards, Mediterranean		No potential source-pathway-receptor links exist between the LAP lands

			salt meadows, <i>Salicornia</i> mud, Marram dunes and fixed dunes.		and the SAC. The SAC will not be impacted directly or indirectly
000206	North Dublin Bay	12.3km	Tidal mudflats and sandflats, Atlantic salt meadows, <i>Spartina</i> swards, Mediterranean salt meadows, <i>Salicornia</i> mud, Marram dunes, fixed dunes, Embryonic shifting dunes and annual vegetation of drift lines.	<i>Petalophyllum ralfsii</i> (Petalwort)	The Pinkeen river is a tributary of the Tolka river, which flows directly into North Dublin Bay. A Sustainable Drainage System (SuDS) as outlined in the Greater Dublin Strategic Drainage Study will be implemented in the LAP area. The SAC will not be impacted directly or indirectly
000210	South Dublin Bay	14.78km	Tidal mudflats and sandflats.		No potential source-pathway-receptor links exist between the LAP lands and the SAC. The SAC will

					not be impacted directly or indirectly
001398	Rye Water Valley/Carton	9.6km	Kingfisher	Vertigo angustior; Vertigo moulinsiana. Mineral spring	No potential source-pathway-receptor links exist between the LAP lands and the SAC. The SAC will not be impacted directly or indirectly

Rogerstown Estuary (Site Code 000208)

Rogerstown estuary is situated about 2 km north of Donabate. It is a relatively small, narrow estuary separated from the sea by a sand and shingle bar. The estuary is divided by a causeway and narrow bridge, built in the 1840s to carry the Dublin-Belfast railway line. The site contains good examples of a number of habitats listed on Annex I of the EU Habitats Directive.

The estuary drains almost completely at low tide. The intertidal flats of the outer estuary are mainly of sands, with soft muds in the north-west sector and along the southern shore. Associated with these muds are stands of Cordgrass (*Spartina anglica*). Green algae (mainly *Enteromorpha* spp. and *Ulva lactuca*) are widespread and form dense mats in the more sheltered areas. The intertidal angiosperm, Beaked Tasselweed (*Ruppia maritima*), grows profusely in places beneath the algal mats. The Lugworm (*Arenicola marina*) is common in the outer estuary and large Mussel beds (*Mytilus edulis*) occur at the outlet to the sea.

The area of intertidal flats in the inner estuary is reduced as a result of the local authority refuse tip on the north shore. The sediments are mostly muds, which are very soft in places. Cordgrass (*Spartina anglica*) is widespread in parts, and in summer, dense green algal mats grow on the muds. In the extreme inner part, the estuary narrows to a tidal river.

Saltmarsh fringes parts of the estuary, especially the southern shores and parts of the outer sand spit. Common plant species of the saltmarsh include Sea Rush (*Juncus maritimus*), Sea Purslane (*Halimione portulacoides*) and Common Saltmarsh-grass (*Puccinellia maritima*). Salt meadows and wet brackish fields occur along the tidal river. Low sand hills occur on the outer spit, including some small areas of fixed dunes and *Ammophila* dunes. Fine sandy beaches and intertidal sandflats occur at the

outer part of the estuary.

Two plant species, which are legally protected under the Flora (Protection) Order, 1999, occur within the site: Hairy Violet (*Viola hirta*) occurs on the sand spit and Meadow Barley (*Hordeum secalinum*) occurs in the saline fields of the inner estuary. This species has declined apparently due to reclamation and embankment of lands fringing estuaries. Another rare species, Green-veined Orchid (*Orchis morio*), occurs in the sandy areas of the outer estuary.

Rogerstown Estuary is an important waterfowl site, with Brent Geese having a population of international importance (1176). A further 16 species have populations of national importance: Greylag Goose (186), Shelduck (785), Teal (584), Pintail (30), Shoveler (69), Oystercatcher (1028), Ringed Plover (152), Golden Plover (1813), Grey Plover (245), Lapwing (4056), Knot (2076), Dunlin (2625), Sanderling (57), Black-tailed Godwit (272), Curlew (1549), Redshank (732) and Greenshank (22) (All counts are average peaks over four winters 1994/95 - 1997/98). The presence of a significant population of Golden Plover is of note and this species is listed on Annex I of the EU Birds Directive. The estuary is a regular staging post for autumn migrants, especially Green Sandpiper, Ruff, Little Stint, Curlew Sandpiper and Spotted Redshank.

Little Tern has bred at the outer sand spit, but much of the nesting area has now been washed away as a result of erosion. The maximum number of pairs recorded was 17 in 1991. Ringed Plover breed in the same area.

The outer part of the estuary has been designated a statutory Nature Reserve and a Special Protection Area under the EU Birds Directive. The inner estuary has been damaged by the refuse tip which covers 40 hectares of mudflat.

This site is a good example of an estuarine system, with all typical habitats represented, including several listed on Annex I of the EU Habitats Directive.

Rogerstown is an internationally important waterfowl site and has been a breeding site for Little Terns. The presence within the site of three rare plant species adds to its importance.

Malahide Estuary (Site Code 000205)

Malahide Estuary is situated immediately north of Malahide and east of Swords. It is the estuary of the River Broadmeadow. The site is divided by a railway viaduct built in the 1800s. The outer part of the estuary is mostly cut off from the sea by a large sand spit, known as "the island". The outer estuary drains almost completely at low tide, exposing sand and mud flats. There is a large bed of Eelgrass (*Zostera noltii* and *Z. angustifolium*) in the north section of the outer estuary, along with Tassel Weed (*Ruppia maritima*) and extensive mats of green algae (*Enteromorpha* spp., *Ulva lactuca*). Cordgrass (*Spartina anglica*) is also widespread in this sheltered part of the estuary. The dune spit has a well developed outer dune ridge dominated by Marram Grass (*Ammophila arenaria*). The dry areas of the stabilised dunes have a dense covering of Burnet Rose (*Rosa pimpinellifolia*), Red Fescue (*Festuca rubra*) and species such as Yellow Wort (*Blackstonia perfoliata*), Field Gentian (*Gentianella amarella*), Hound's Tongue (*Cynoglossum officinale*), Carline Thistle (*Carlina vulgaris*) and Pyramidal Orchid (*Anacamptis pyramidalis*). Much of the

interior of the spit is taken up by a golf course. The inner stony shore has frequent Sea-holly (*Eryngium maritimum*). Well-developed saltmarshes occur at the tip of the spit. Atlantic salt meadow is the principle type and is characterised by species such as Sea Purslane (*Halimolobos portulacoides*), Sea Aster (*Aster tripolium*), Thrift (*Armeria maritima*), Sea Arrowgrass (*Triglochin maritima*) and Common Saltmarsh-grass (*Puccinellia maritima*). Elsewhere in the outer estuary, a small area of Mediterranean salt meadow occurs which is characterised by the presence of Sea Rush (*Juncus maritimus*). Below the salt marshes there are good examples of pioneering Glasswort swards and other annual species, typified by *Salicornia dolichostachya* and Annual Sea-blite (*Suaeda maritima*). The inner estuary does not drain at low tide apart from the extreme inner part. Here, patches of saltmarsh and salt meadows occur, with Sea Aster, Sea Plantain (*Plantago maritima*) and Sea Clubrush (*Scirpus maritimus*). Tassel Weed (*Ruppia maritima*) occurs in one of the channels. The site includes a fine area of rocky shore south-east of Malahide and extending towards Portmarnock. This represents the only continuous section through the fossiliferous Lower Carboniferous rocks in the Dublin Basin, and is the type locality for several species of fossil coral. The estuary is an important wintering bird site and holds an internationally important population of Brent Geese and nationally important populations of a further 15 species. Average maximum counts during the 1995/96-1997/98 period were Brent Geese 1217; Great Crested Grebe 52; Mute Swan 106; Shelduck 471; Pochard 200; Goldeneye 333; Red-breasted Merganser 116; Oystercatcher 1228; Golden Plover 2123; Grey Plover 190; Redshank 454; Wigeon 50; Teal 78; Ringed Plover 106; Knot 858; Dunlin 1474; Greenshank 38; Pintail 53; Black-tailed Godwit 345; Bar-tailed Godwit 99. The high numbers of diving birds reflects the lagoon-type nature of the inner estuary. The estuary also attracts migrant species such as Ruff, Curlew Sandpiper, Spotted Redshank and Little Stint. Breeding birds of the site include Ringed Plover, Shelduck and Mallard. Up to the 1950s there was a major tern colony at the southern end of the island and the habitat remains suitable for these birds. The inner part of the estuary is heavily used for water sports. A section of the outer estuary has recently been infilled for a marina and housing development. This site is a fine example of an estuarine system with all the main habitats represented. The site is important ornithologically, with a population of Brent Geese of international significance.

North Dublin Bay (Site Code 000206)

This site covers the inner part of north Dublin Bay, the seaward boundary extending from the Bull Wall lighthouse across to the Martello Tower at Howth Head. The North Bull Island is the focal point of this site. The island is a sandy spit which formed after the building of the South Wall and Bull Wall in the 18th and 19th centuries. It now extends for about 5 km in length and is up to 1 km wide in places. A well-developed and dynamic dune system stretches along the seaward side of the island. Various types of dunes occur, from fixed dune grassland to pioneer communities on foredunes. Marram Grass (*Ammophila arenaria*) is dominant on the outer dune ridges, with Lyme Grass (*Leymus arenarius*) and Sea Couchgrass (*Elymus farctus*) on the foredunes. Behind the first dune ridge, plant diversity increases with the appearance of such species as Wild Pansy (*Viola tricolor*), Kidney Vetch (*Anthyllis vulneraria*), Bird's-foot Trefoil (*Lotus corniculatus*),

Rest Harrow (*Ononis repens*), Yellow Rattle (*Rhinanthus minor*) and Pyramidal Orchid (*Anacamptis pyramidalis*). In these grassy areas and slacks, the scarce Bee Orchid (*Ophrys apifera*) occurs. About 1 km from the tip of the island, a large dune slack with a rich flora occurs, usually referred to as the 'Alder Marsh' because of the presence of Alder trees (*Alnus* spp). The water table is very near the surface and is only slightly brackish. Saltmarsh Rush (*Juncus maritimus*) is the dominant species, with Meadow Sweet (*Filipendula ulmaria*) and Devil's-bit (*Succisa pratensis*) being frequent. The orchid flora is notable and includes Marsh Helleborine (*Epipactis palustris*), Common Twayblade (*Listera ovata*), Autumn Lady's-tresses (*Spiranthes spiralis*) and Marsh orchids (*Dactylorhiza* spp.) Saltmarsh extends along the length of the landward side of the island. The edge of the marsh is marked by an eroding edge which varies from 20 cm to 60 cm high. The marsh can be zoned into different levels according to the vegetation types present. On the lower marsh, Glasswort (*Salicornia europaea*), Saltmarsh Grass (*Puccinellia maritima*), Annual Sea-blite (*Suaeda maritima*) and Greater Sea-spurrey (*Spergularia media*) are the main species. Higher up in the middle marsh Sea Plantain (*Plantago maritima*), Sea Aster (*Aster tripolium*), Sea Arrowgrass (*Triglochin maritima*) and Sea Pink (*Armeria maritima*) appear. Above the mark of the normal high tide, species such as Scurvy Grass (*Cochlearia officinalis*) and Sea Milkwort (*Glaux maritima*) are found, while on the extreme upper marsh, Sea Rushes (*Juncus maritimus* and *J. gerardii*) are dominant. Towards the tip of the island, the saltmarsh grades naturally into fixed dune vegetation. The island shelters two intertidal lagoons which are divided by a solid causeway. The sediments of the lagoons are mainly sands with a small and varying mixture of silt and clay. The north lagoon has an area known as the "Salicornia flat", which is dominated by *Salicornia dolichostachya*, a pioneer Glasswort species, and covers about 25 ha. Tassel Weed (*Ruppia maritima*) occurs in this area, along with some Eelgrass (*Zostera angustifolia*). Eelgrass (*Z. noltii*) also occurs in Sutton Creek. Cordgrass (*Spartina anglica*) occurs in places but its growth is controlled by management. Green algal mats (*Enteromorpha* spp., *Ulva lactuca*) cover large areas of the flats during summer. These sediments have a rich macrofauna, with high densities of Lugworms (*Arenicola marina*) in parts of the north lagoon. Mussels (*Mytilus edulis*) occur in places, along with bivalves such as *Cerastoderma edule*, *Macoma balthica* and *Scrobicularia plana*. The small gastropod *Hydrobia ulvae* occurs in high densities in places, while the crustaceans *Corophium volutator* and *Carcinus maenas* are common. The sediments on the seaward side of North Bull Island are mostly sands. The site extends below the low spring tide mark to include an area of the sublittoral zone. Three Rare plant species legally protected under the Flora Protection Order 1987 have been recorded on the North Bull Island. These are Lesser Centaury (*Centaureum pulchellum*), Hemp Nettle (*Galeopsis angustifolia*) and Meadow Saxifrage (*Saxifraga granulata*). Two further species listed as threatened in the Red Data Book, Wild Sage (*Salvia verbenaca*) and Spring Vetch (*Vicia lathyroides*), have also been recorded. A rare liverwort, *Petalophyllum ralfsii*, was first recorded from the North Bull Island in 1874 and has recently been confirmed as being still present there. This species is of high conservation value as it is listed on Annex II of the E.U. Habitats Directive. The North Bull is the only known extant site for the species in Ireland away from the western seaboard.

North Dublin Bay is of international importance for waterfowl. During the 1994/95 to 1996/97 period the following species occurred in internationally important numbers (figures are average maxima): Brent Geese 2,333; Knot 4,423; Bar-tailed Godwit 1,586. A further 14 species occurred in nationally important concentrations - Shelduck 1505; Wigeon 1,166; Teal 1,512; Pintail 334; Shoveler 239; Oystercatcher 2,190; Ringed Plover 346; Grey Plover 816; Sanderling 357; Dunlin 6,238; Blacktailed Godwit 156; Curlew 1,193; Turnstone 197 and Redshank 1,175. Some of these species frequent South Dublin Bay and the River Tolka Estuary for feeding and/or roosting purposes (mostly Brent Goose, Oystercatcher, Ringed Plover, Sanderling, Dunlin).

The tip of the North Bull Island is a traditional nesting site for Little Tern. A high total of 88 pairs nested in 1987. However, nesting attempts have not been successful since the early 1990s. Ringed Plover, Shelduck, Mallard, Skylark, Meadow Pipit and Stonechat also nest. A well-known population of Irish Hare is resident on the island. The invertebrates of the North Bull Island have been studied and the island has been shown to contain at least seven species of regional or national importance in Ireland (Orders Diptera, Hymenoptera, Hemiptera).

The main landuses of this site are amenity activities and nature conservation. The North Bull Island is the main recreational beach in Co Dublin and is used throughout the year. Much of the land surface of the island is taken up by two golf courses. Two separate Statutory Nature Reserves cover much of the island east of the Bull Wall and the surrounding intertidal flats. The site is used regularly for educational purposes.

North Bull Island has been designated a Special Protection Area under the E.U. Birds Directive and it is also a statutory Wildfowl Sanctuary, a Ramsar Convention site, a Biogenetic Reserve, a Biosphere Reserve and a Special Area Amenity Order site.

This site is an excellent example of a coastal site with all the main habitats represented. It holds good examples of ten habitats that are listed on Annex I of the E.U. Habitats Directive; one of these is listed with priority status. Several of the wintering bird species have populations of international importance, while some of the invertebrates are of national importance. The site contains a number of rare and scarce plants including some which are legally protected. Its proximity to the capital city makes North Dublin Bay an excellent site for educational studies and research.

South Dublin Bay (Site Code 000210)

This site lies south of the River Liffey and extends from the South Wall to the west pier at Dun Laoghaire. It is an intertidal site with extensive areas of sand and mudflats, a habitat listed on Annex I of the E.U. Habitats Directive. The sediments are predominantly sands but grade to sandy muds near the shore at Merrion gates. The main channel which drains the area is Cackle Lake. There is a bed of Eelgrass (*Zostera noltii*) below Merrion Gates which is the largest stand on the east coast. Green algae (*Enteromorpha* spp. and *Ulva lactuca*) are distributed throughout the area at a low density. Fucoid algae occur on the rocky shore in the Maretimo to Dún Laoghaire area. Species include *Fucus spiralis*, *F. vesiculosus*, *F. serratus*, *Ascophyllum nodosum* and *Pelvetia canaliculata*. Several small, sandy beaches with incipient dune formation occur in the northern and western sectors of the site, notably at Poolbeg, Irishtown and Merrion/Boosterstown. The

formation at Booterstown is very recent. Driftline vegetation occurs in association with the embryonic and incipient fore dunes. Typically drift lines occur in a band approximately 5 m wide, though at Booterstown this zone is wider in places. The habitat occurs just above the High Water Mark and below the area of embryonic dune. Species present are Sea Rocket (*Cakile maritima*), Frosted Orache (*Atriplex laciniata*), Spear-leaved Orache (*A. prostrata*), Prickly Saltwort (*Salsola kali*) and Fat Hen (*Chenopodium album*). Also occurring is Sea Sandwort (*Honkenya peploides*), Sea Beet (*Beta vulgaris*) and Annual Sea-blithe (*Suaeda maritima*). A small area of pioneer salt marsh now occurs in the lee of an embryonic sand dune just north of Booterstown Station. This early stage of salt marsh development is here characterized by the presence of pioneer stands of Glasswort (*Salicornia* spp.) occurring below an area of drift line vegetation. As this is of very recent origin, it covers a small area but ample areas of substrate and shelter are available for the further development of this habitat. Lugworm (*Arenicola marina*) and Cockles (*Cerastoderma edule*) and other annelids and bivalves are frequent throughout the site. The small gastropod *Hydrobia ulvae* occurs on the muddy sands off Merrion Gates. South Dublin Bay is an important site for waterfowl. 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. The principal species are Oystercatcher (1215), Ringed Plover (120), Sanderling (344) and Dunlin (2628), Redshank (356) (average winter peaks 1996/97 and 1997/98). Up to 100 Turnstones are usual in the south bay during winter. Brent Geese regularly occur in numbers of international importance (average peak 299). Bar-tailed Godwit (565), a species listed on Annex I of the EU Birds Directive, also occur. Large numbers of gulls roost in South Dublin Bay, e.g. 4,500 Black-headed Gulls in February 1990; 500 Common Gulls in February 1991. It is also an important tern roost in the autumn, regularly holding 2000-3000 terns including Roseate Terns, a species listed on Annex I of the E.U. Birds Directive. South Dublin Bay is largely protected as a Special Protection Area. At low tide the inner parts of the south bay are used for amenity purposes. Baitdigging is a regular activity on the sandy flats. At high tide some areas have windsurfing and jet-skiing. This site is a fine example of a coastal system with extensive sand and mudflats, a habitat listed on Annex I of the E.U. Habitats Directive. South Dublin Bay is also an internationally important bird site.

Rye Water Valley/Cartron (Site Code 001398):

This site is located between Leixlip and Maynooth. It extends along the Rye Water, a tributary of the River Liffey. The woods at Carton Demesne are the site of a rare Myxomycete fungus, *Diderma deplanatum*. Within the woods, Blackcap, Woodcock and Longeared Owl have been recorded. Little Grebe, Coot, Moorhen, Tufted Duck, Teal and Kingfisher, the latter a species listed on Annex I of the EU Birds Directive, occur on and about the lake. 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 EU Habitats Directive. The Rye Water is a spawning ground for Trout and Salmon, and the rare, Whiteclawed Crayfish (*Austroptamobius pallipes*) has been recorded at Leixlip. The latter two species are listed on Annex II of the EU Habitats Directive. The semi-aquatic snails *Vertigo*

angustior and *V. mouliniana* occur in marsh vegetation near Louisa Bridge; both are rare in Ireland and Europe and are listed on Annex II of the EU Habitats Directive. The scarce Dragonfly, *Orthetrum coerulescens*, has been recorded at Louisa Bridge. The main importance of the site lies in the presence of several rare and threatened plant and animal species, and of a rare habitat, thermal, mineral, petrifying spring. The woods found on Carton Estate and their birdlife are of additional interest.

2.3 CONSERVATION OBJECTIVES OF THE NATURA 2000 SITES

2.3.1 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 cSAC. Once each site has been designated, it is required that a management plan should be put in place for the site which sets out the objectives for the site in order to maintain the favourable conservation status of these qualifying features and prevent in as far as possible threats and impacts on these habitats and species.

In the absence of a NPWS Management Plan for these sites to date, the following Draft Conservation Objectives are set out below:

Rogerstown Estuary (Site Code 000208)

- 1 To maintain the favourable conservation status of the Qualifying Interests of the SAC, or the Special Conservation Interests of the SPA.
- 2 To maintain the extent, species richness and biodiversity of the entire site.
- 3 To establish effective liaison and co-operation with landowners, legal users and relevant authorities

Malahide Estuary (Site Code 000205)

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:

- *Mudflats and sandflats not covered by seawater at low tide*
- *Salicornia and other annuals colonizing mud and sand*
- *Spartina swards (Spartinion maritimae)*
- *Atlantic salt meadows (Glauco Puccinellietalia maritimae)*
- *Mediterranean salt meadows (Juncetalia maritimi)*
- *Shifting dunes along the shoreline with Ammophila arenaria ("white dunes")*
- *Fixed coastal dunes with herbaceous vegetation ("grey dunes")*

North Dublin Bay (Site Code 000206)

1. To maintain the Annex I habitats for which the SAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide; Annual vegetation of drift lines; Salicornia and other annuals colonizing mud and sand; Atlantic salt meadows (*Glauco-Puccinellietalia maritimae*); Mediterranean salt meadows (*Juncetalia maritimi*); Embryonic shifting dunes; Shifting dunes along the shoreline with *Ammophila arenaria* (white dunes); Fixed coastal dunes with herbaceous vegetation (grey dunes); Humid dune slacks.
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Petalophyllum ralfsii*.
3. To maintain the extent, species richness and biodiversity of the entire site
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

South Dublin Bay (Site Code 000210)

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Mudflats and sandflats not covered by seawater at low tide.
2. To maintain the extent, species richness and biodiversity of the entire site.
3. To establish effective liaison and co-operation with landowners, legal users and relevant authorities

Rye Water Valley/Cartron (Site Code 001398):

1. To maintain the Annex I habitat for which the cSAC has been selected at favourable conservation status: Petrifying springs with tufa formation (*Cratoneurion*).
2. To maintain the Annex II species for which the cSAC has been selected at favourable conservation status: *Vertigo angustior*; *Vertigo moulinsiana*.
3. To maintain the extent, species richness and biodiversity of the entire site.
4. To establish effective liaison and co-operation with landowners, legal users and relevant authorities.

2.3.2 CONSERVATION OBJECTIVES OF SPAs

Draft conservation objectives for SPAs are available from the NPWS.

The main conservation objective for the Rogerstown SPA (Site Code 000208):

To maintain the special conservation interests for this SPA at favourable conservation status for:

- *Greylag Goose (Anser anser) [A043]*
- *Light-bellied Brent Goose (Branta bernicla hrota) [A046]*

- *Shelduck (Tadorna tadorna)* [A048]
- *Shoveler (Anas clypeata)* [A056]
- *Oystercatcher (Haematopus ostralegus)* [A130]
- *Ringed Plover (Charadrius hiaticula)* [A137]
- *Grey Plover (Pluvialis squatarola)* [A141]
- *Knot (Calidris canutus)* [A143]
- *Dunlin (Calidris alpina)* [A149]
- *Black-tailed Godwit (Limosa limosa)* [A156]
- *Redshank (Tringa totanus)* [A162]
- *Wetlands & Waterbirds* [A999]

The main conservation objective for the Broadmeadow/Swords Estuary SPA (Site Code 004025):

To maintain the special conservation interests for this SPA at favourable conservation status for:

- *Light-bellied Brent Goose,*
- *Shelduck,*
- *Pintail,*
- *Goldeneye,*
- *Red-breasted Merganser,*
- *Oystercatcher,*
- *Golden Plover,*
- *Grey Plover,*
- *Knot,*
- *Dunlin,*
- *Black-tailed Godwit,*
- *Redshank,*
- *Wetland & Waterbirds*

The main conservation objective for the North Bull Island SPA (Site Code 004006):

To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA:

- *Branta bernicla hrota* [wintering]
- *Tadorna tadorna* [wintering]
- *Anas crecca* [wintering]
- *Anas acuta* [wintering]
- *Anas clypeata* [wintering]
- *Haematopus ostralegus* [wintering]
- *Pluvialis apricaria* [wintering]
- *Pluvialis squatarola* [wintering]
- *Calidris canutus* [wintering]
- *Calidris alba* [wintering]
- *Calidris alpina* [wintering]

- *Limosa limosa* [wintering]
- *Limosa lapponica* [wintering]
- *Numenius arquata* [wintering]
- *Tringa totanus* [wintering]
- *Arenaria interpres* [wintering]

The main conservation objective for the South Dublin Bay and River Tolka Estuary SPA (Site code 004024):

To maintain the special conservation interests for the SPA at favourable conservation status for:

- *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'*

2.4 ASSESSMENT CRITERIA

2.4.1 DIRECT, INDIRECT OR SECONDARY IMPACTS

Tables 1 and 2 list the Natura 2000 sites within 15km of the Plan area. There are 9 sites in all, 5 no. SACs and 4 no. SPAs. None of the Natura 2000 sites lie within the boundaries of the site lands, therefore no direct impacts will occur through landtake or fragmentation of habitats. The site is approximately 9.6km from the closest Natura 2000 site, therefore no significant impacts through direct disturbance of habitats and species will occur from the development of the land.

TABLE 3: Potential Direct, Indirect or Secondary Impacts of the Development on Natura 2000 Sites

Site Name	Direct Impacts	Indirect Impacts	Resource Requirements (Drinking Water Abstraction etc)	Emissions (Disposal to Land, Water or Air)	Excavation Requirements	Transportation Requirements	Duration of Construction and Operation
South Dublin Bay and River Tolka Estuary SPA	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
Rogerstown Estuary SPA	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
Broadmeadow/ Swords Estuary SPA	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
North Bull Island SPA	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
Malahide Estuary SAC	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
North Dublin Bay SAC	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
Rogerstown Estuary SAC	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
South Dublin Bay SAC	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species
Rye Water Valley /Carton SAC	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species	No impact on qualifying habitat or species

2.4.2 CUMULATIVE AND IN COMBINATION IMPACTS

The potential for cumulative and in-combination impacts on any Natura 2000 site is surface water entering the Pinkeen river, a tributary of the Tolka river which flows directly into North Dublin Bay. Significant plans/projects in the vicinity of the site are the M2-N3 Link Road (currently under construction) and the Killamonan/Cherryhound Local

Area Plan (currently being prepared). Sustainable Drainage Systems (SuDS), as outlined in the Greater Dublin Strategic Drainage Study, are an integral component of the Kilmartin LAP, the M2-N3 Link Road and the Killamonan/Cherryhound Local Area Plan. SuDS is a measure to manage surface water run-off generated by a development in terms of quantity and quality. There is no potential for cumulative and in-combination impacts on North Dublin Bay, given the implementation of SuDS in all three plans/projects.

2.4.3 LIKELY CHANGES TO THE NATURA 2000 SITES

The likely changes that will arise from the development have been examined in the context of a number of factors that could potentially affect the integrity of the Natura 2000 sites. Overall, it has been found that the development of the Kilmartin lands will not cause any changes to the integrity of the Natura 2000 sites.

TABLE 4: Likely Changes to Natura Sites

Site Name	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
South Dublin Bay and River Tolka Estuary SPA	None	None	None	None	None	None
Rogerstown Estuary SPA	None	None	None	None	None	None
Broadmeadow/Swords Estuary SPA	None	None	None	None	None	None
North Bull Island SPA	None	None	None	None	None	None
Rogerstown Estuary SAC	None	None	None	None	None	None
Malahide Estuary SAC	None	None	None	None	None	None
North Dublin Bay SAC	None	None	None	None	None	None
South Dublin Bay SAC	None	None	None	None	None	None
Rye Water Valley /Carton SAC	None	None	None	None	None	None

3.0 SCREENING CONCLUSION

A screening process in accordance with Article 6(3) of the Habitats Directive was carried out to determine whether a full appropriate assessment is required for the proposed Local Area Plan. 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.

