



PROVISION OF INFORMATION REGARDING APPROPRIATE ASSESSMENT SCREENING

**PROPOSED MARLAY PARK MASTERPLAN
MARLAY PARK, RATHFARNHAM, DUBLIN 16**

Prepared for Dún Laoghaire-Rathdown County Council

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TABLE OF CONTENTS

1	Introduction.....	1
2	Local Authority Policies.....	1
3	Methodology	2
4	Screening for Appropriate Assessment	3
4.1	Location and context of the Proposed Event to European Sites	3
4.2	Identifying Potential Impact Pathways and Determining the Zone of Influence of the Proposal	4
4.3	Identifying European Sites within the Zone of Influence of the Proposed Development	5
4.4	Details of the Proposal and other Plans that Could Cumulatively Affect European Sites	5
5	Conclusions of the Screening Assessment.....	16
6	References	17
	APPENDIX 1: Proposed Marlay Park Masterplan.....	19

LIST OF TABLES

Table 1: Plan objectives and potential to affect water quality.	5
Table 2: Analysis of European Sites within the zone of influence of the proposed development	8

LIST OF FIGURES AND APPENDICES

Figure 1: All European Sites within 15km of the proposed development.....	15
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1 Introduction

The information in this report forms part of, and should be read in conjunction with the proposed Marlay Park Masterplan (herein referred to as “the plan”) for Marlay Park, Rathfarnham, Dublin 16 (herein referred to as “the park”). The plan sets out policies and objectives with regards to land use and development of facilities within the park.

This report, which contains information required for the competent authority (in this instance Dún Laoghaire-Rathdown County Council) to undertake a screening exercise for Appropriate Assessment (AA), was prepared by Scott Cawley Ltd. It provides information on and assesses the potential for the plan to significantly affect Natura 2000 sites (hereafter “European Sites”¹).

It is necessary that the proposal has regard to Article 6 of the *Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora* (as amended) (hereafter “the Habitats Directive”). This is transposed in Ireland primarily by *the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477/2011)* (hereafter the Birds and Habitats Regulations) and the Planning and Development (Amendment) Act, 2010 as amended.

An AA is required if likely significant effects on European Sites arising from a plan cannot be ruled out at the screening stage, either alone or in combination with other plans or projects.

It is the responsibility of the competent authority to make a decision as to whether or not the plan is likely to have significant effects on European Sites, either individually or in combination with other plans or projects. In accordance with the legislation and national guidance, the competent authority issues an AA Screening Determination which will set out their decision and the reasons for it.

Following the preparation of this report it may be objectively concluded that there is no possibility of any significant effects on any European Sites arising from the plan, either alone or in combination with other plans or projects. Therefore it is our view that an Appropriate Assessment is not required in this instance. The information in the tables below provide a summary of the information gathered for this screening exercise and the conclusions made.

2 Local Authority Policies

The park is within the boundaries of the Dún Laoghaire-Rathdown County Area, and subject to policies and objectives of the *Dún Laoghaire-Rathdown County Development Plan 2016-2022* (Dún Laoghaire-Rathdown County Council, 2016). The county development plan sets out policies and objectives in relation to land use and development within the County area.

¹ Natura 2000 sites are defined under the Habitats Directive (Article 3) as a European ecological network of special areas of conservation composed of sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II. The aim of the network is to aid the long-term survival of Europe's most valuable and threatened species and habitats. In Ireland these sites are designed as *European Sites* - defined under the Planning Acts and/or Birds and Habitats Regulations as (a) a candidate site of Community importance, (b) a site of Community importance, (c) a candidate special area of conservation, (d) a special area of conservation, (e) a candidate special protection area, or (f) a special protection area. They are commonly referred to in Ireland as candidate Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

3 Methodology

This report was prepared with regard to the following guidance documents, where relevant:

- *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 & PSSP 2/10.
- *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); hereafter referred to as the EC Article 6 Guidance Document. The guidance within this document provides a non-mandatory methodology for carrying out assessments required under Article 6(3) and (4) of the Habitats Directive.
- *Managing Natura 2000 Sites: The Provisions of Article 6 of the Habitat's Directive 92/43/EEC* (EC Environment Directorate-General, updated April 2015); hereafter referred to as MN2000.
- *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).
- *Communication from the Commission on the precautionary principle.* European Commission (2000).

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 significant 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 likely significant effects, and therefore concludes that Appropriate Assessment is not required, these findings should be clearly documented in order to provide transparency of decision-making, and to ensure the application of the 'precautionary principle'².

Screening for Appropriate Assessment involves the following:

- Determining whether a project or plan is directly connected with or necessary to the conservation management of any European Sites;

² One of the primary foundations of the precautionary principle, and globally accepted definitions, results from the work of the Rio Declaration. Principle #15 declaration notes:

"In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

- Describing the details of the project/plan proposals and other plans or projects that may cumulatively affect any European Sites;
- Describing the characteristics of relevant European Sites (Table 1); and,
- Assessing the likelihood of significant effects on relevant European Sites (see Table 1).

The information that was collected to allow the competent authority to screen the plan was based on a desk study carried out on 29th June 2018. Information relied upon included the following sources, which included maps, ecological and water quality data:

- Ordnance Survey Ireland mapping and aerial photography available from OSI online GeoHive mapping resource (Ordnance Survey Ireland, 2018);
- Data on protected species and European sites, available for download and interrogation from the National Parks and Wildlife Service maps and data page (NPWS, 2018);
- Spatial information relevant to the planning process including land zoning and planning applications from Department of Housing Planning, Community and Local Government web map portal (DoHPCLG, 2018);
- Data on waterbodies, available for download and interrogation from the Environmental Protection Agency web map service (EPA, 2018);
- Information on soils, geology and hydrogeology in the area available for download and interrogation from the Geological Survey Ireland online Spatial Resources service (GSI, 2018);
- Information on the proposed policies and objectives of the plan provided by Dún Laoghaire-Rathdown County Council;
- Information on the status of EU protected habitats and species in Ireland (National Parks & Wildlife Service, 2013a & 2013b).

4 Screening for Appropriate Assessment

4.1 Location and context of the Proposed Event to European Sites

Based on examination of the database of protected sites held by the NPWS, the subject lands do not overlap with and are not located directly adjacent to any European sites (NPWS, 2018).

The plan is centred on O 15459 26405 within the grounds of Marlay Park, Rathfarnham, Co. Dublin. The site encompasses grassland, woodland and parkland within the demesne of Marlay Park. Marlay Park is located on the southern edge of the Dublin urban area, and is bordered to the south by the M50 ring road, to the east and north by suburban housing, and to the west by the Grange Golf Club.

The Little Dargle Stream passes through the subject lands and is impounded to form a series of lakes within Marlay Park. The Little Dargle joins with the River Dodder in Churchtown, c. 3.8km downstream, which in turn discharges to the River Liffey Estuary and Dublin Bay 11.2km further downstream. Surface waters from the park discharge directly to the local surface water network, and therefore there is a hydrological connection between the proposed event and European sites in Dublin Bay.

The closest European sites to the proposed event are the Wicklow Mountains SAC (002122), c. 3.3km to the south, and Wicklow Mountains SPA (004040), c. 3.6km south, although the lands are not connected

to either of these European sites (see Section **Error! Reference source not found.**). All European sites within 15km are illustrated in Figure 1.

The closest European sites with a connection (in this case via the surface water and foul water networks) to the proposed event are South Dublin Bay SAC (000210), c. 6km northeast, and South Dublin Bay and River Tolka Estuary SPA (004024). South Dublin Bay SAC (000210) is designated for a several marine and coastal habitats. South Dublin Bay and River Tolka Estuary SPA (004024) has been designated for a range of overwintering wetland bird species. Some of these bird species (*e.g.* light-bellied brent goose *Branta bernicla hrota*, oystercatcher *Haematopus ostralegus*, plover species) are known to visit amenity grassland sites outside of the SPA boundary in the Dublin region for supplementary forage (NPWS, 2014; Benson, 2009). There are no records of brent geese or other overwintering wetland bird species, which are special conservation interests of European sites in Dublin Bay, utilising the lands at Marlay Park as an *ex situ* foraging site. Black-headed full *Larus ridibundus* are known to occur in small numbers within the park, where they have been observed foraging on occasion (Scott Cawley, 2017).

4.2 Identifying Potential Impact Pathways and Determining the Zone of Influence of the Proposal

The potential impact sources and pathways associated with the plan are:

- Habitat loss arising from construction of facilities in pursuit of meeting objectives of the plan;
- Disturbance/displacement of species arising from construction of facilities in pursuit of meeting objectives of the plan;
- Negative effects on water quality in Dublin Bay arising from construction-related runoff from the lands and continued discharge of treated effluent of waste from Ringsend Wastewater Treatment Plan (WWTP).

The zone of influence is a distance within which the proposed works could potentially affect the conservation condition of qualifying interest habitats or species or special conservation interest species. There is no set recommended distance for which European sites are considered as being relevant (*i.e.* within the zone of influence of proposed works) for AA. Available guidance (NPWS, 2010) recommends that “*the distance should be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in-combination effects*”. As a general rule of thumb, it is often considered appropriate to examine all European sites within 15km as a starting point. In some instances where there are far-reaching hydrological/hydrogeological connections, a whole river catchment or a groundwater aquifer may need to be included in determining the zone of influence. All European sites within 15km of the proposed works are shown on Figure 1.

The potential impact source and pathway associated with the plan are principally in

- *Affecting Water Quality in Dublin Bay*

The potential zone of influence for water quality, in theory (albeit very unlikely in light of the distance of separation between the park and Dublin Bay) could extend to Dublin Bay in light of the existence of a watercourse within the lands which links with Dublin Bay downstream, and as foul waters from the park will continue to be discharged to Dublin Bay following their treatment at Ringsend WWTP.

4.3 Identifying European Sites within the Zone of Influence of the Proposed Development

The nature of objectives and policies of the plan, the identified potential impact pathways and their relationship to European sites were considered in order to determine which European sites were within the zone of influence of the proposed development, and therefore potentially at risk of significant effects:

- *Habitat Loss*

The lands do not overlap with any European sites, and as the lands are not considered to be a stepping stone or *ex situ* site for populations of qualifying interest or special conservation interest species of any European sites in the vicinity, there is no risk of habitat loss affecting any European sites.

- *Disturbance/Displacement*

The proposed development poses no risk of disturbing or displacing qualifying interest or special conservation interest species within any European sites as it is more than three kilometres from the nearest – Wicklow Mountains SAC (002122), and the park is not a stepping stone or *ex situ* site for populations of qualifying interest/special conservation interest species of European. There is therefore no possibility of disturbance/displacement effects on any European sites.

- *Affecting Water Quality in Baldoyle Estuary and Dublin Bay*

As the surface waters and foul waters from the lands will continue to discharge to Dublin Bay, albeit after a downstream distance of c.15km in the case of surface waters and following treatment at Ringsend WWTP in the case of foul waters, European sites in Dublin Bay have been conservatively included within the zone of influence of the plan:

- North Dublin Bay SAC (000206)
- North Bull Island SPA (004006)
- South Dublin Bay SAC (000210)
- South Dublin Bay and River Tolka Estuary SPA (004024)
- Howth Head SAC (000202)
- Howth Head Coast SPA (004113)
- Rockabill to Dalkey Island SAC (003000)
- Dalkey Islands SPA (004172)

4.4 Details of the Proposal and other Plans that Could Cumulatively Affect European Sites

Objectives 1-27 of the plan are appraised for their potential to affect European sites in Dublin Bay in Table 1. The locations of these objectives is illustrated within Appendix 1 of this report.

Table 1: Plan objectives and potential to affect water quality.

No.	Objective	Potential water quality impacts?
1	Pedestrian entrance	Yes if works were to require diversion of the Little Dargle culvert or if the works area drains directly to the Little Dargle.

2	Extensive seating and gathering space	No. Located remotely from any watercourses
3	Thinning of tree canopy, de-silting of ponds and improved walk	Yes. This may result in the agitation of silts in the river. There is also potential for accidental spillage of construction materials/petrochemicals to the watercourse. Silts could be mobilised to locations downstream along the Little Dargle channel, although unlikely to spread beyond several hundred metres.
4	Restoration of the ha-ha	Yes. The ha-ha contains water throughout most of the year and connects to the Little Dargle. There is potential for sediments to be mobilised to the Dargle, however in light of the small scale of works, this is unlikely to travel more than a few hundred metres downstream.
5	Woodland planting boundary	No. Located remotely from any watercourses
6	Location(s) for potential bridge	Yes. The proposed bridge is over a branch of the Little Dargle. In light of the small scale of works, water quality effects are likely to be confined to the park.
7	Development of cottage garden within Laurelmere	No as it is remote from watercourses, and the ground in the area is gently sloping, and therefore there is very low likelihood of silts entering watercourses.
8	Restoration of the depot farmyard to include sports studios and changing areas	No as it is remote from watercourses, and the ground in the area is gently sloping, and therefore there is very low likelihood of silts entering watercourses.
9	Refurbishment of seating area	Yes, depending on the nature of the refurbishment, although water quality impacts are likely to be confined to the adjacent pond, which is impounded with a set of seasonally dry weirs.
10	New path and seating/resting area	Yes. The proposed path is adjacent to a ditch, however the rate of flow is slow and potential water quality impacts are therefore likely to be confined to the ditch immediately adjacent to the path.
11	Mounding and avenue focal point	No. Located remotely from any watercourses
12	Adventure running route incorporating model railway and sculptural mounding	No. Located remotely from any watercourses
13	Cricket crease and outfield	No. Located remotely from any watercourses
14	Attenuation pond and wetland	Yes. During construction, particularly connection to existing surface water network, there is a risk of sediments and silts being washed downstream. This is likely to be confined to the park given the size of watercourses involved and the downstream distance to the park boundary.
15	Small-sided games pitch	Yes. During decommissioning of the tennis courts especially during removal of hard surfaces and establishment of grassy areas, there is a risk of sediments and silts being washed

		downstream. This is likely to be confined to the park given the size of watercourses involved and the downstream distance to the park boundary.
16	Reinstatement of historic woodland to form an arboretum	No.
17	Planting of native hedgerows and trees	No. Located remotely from any watercourses
18	New path arrangement	Yes. During construction, particularly during crossing of the ditch/watercourse, there is a risk of sediments and silts being washed downstream. This is likely to be confined to the park given the size of watercourses involved and the downstream distance to the park boundary.
19	Tree planting along avenue	No. Located remotely from any watercourses
20	Screening of car park	No. Located remotely from any watercourses
21	Relocation of tennis courts	No. Located remotely from any watercourses
22	Multi-use buildings to serve pitches/courts	No. Located remotely from any watercourses
23	Overflow ritter car park	No. Located remotely from any watercourses
24	Upgraded entrance	Yes. During construction, there is a risk of sediments and silts being washed downstream. This is likely to be confined to the park given the size of watercourses involved and the downstream distance to the park boundary.
25	Increased woodland belt	No.
26	Upgraded grass pitches	No. Located remotely from any watercourses
27	Proposed cycle route	No. Located remotely from any watercourses

The catchment of the Little Dargle River traverses from the Dublin Mountains through Marlay Park and onwards via existing residential and urbanised areas. There is limited scope for additional development within the catchment in light of existing land uses and most plans or projects in the locality are likely to be either small-scale projects such as house extensions, or infill developments on brownfield lands. It is considered likely that numerous plans and projects will be granted permission or commence construction during the lifetime of the plan. There is potential for “*in-combination*” effects of proposed plans and projects within the *Dún Laoghaire-Rathdown County Development Plan 2016-2022*, and other local and county level land use plans which can influence water quality conditions in Dublin Bay.

Table 2: Analysis of European Sites within the zone of influence of the proposed development

Site name and code	Distance from subject lands, and from Ringsend WWTP	Qualifying Interests/Special Conservation Interests ^{3 4}	Potential Significant Effects on European site?	Further Assessment Required
Special Areas of Conservation				
South Dublin Bay SAC (000210)	c. 6km northeast	<p>Conservation Objectives: South Dublin Bay SAC 000210. Version 1. (NPWS, 2013k).</p> <p>[1140] Mudflats and sandflats not covered by seawater at low tide</p> <p>[1210] Annual vegetation of drift lines</p> <p>[1310] <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>[2110] Embryonic shifting dunes</p>	<p>No.</p> <p>Although the lands are connected to the European site via the foul water network, which discharges, following treatment to the Liffey Estuary/Dublin Bay, and via the surface water network, there is no possibility of significant effects for the following reasons:</p> <ul style="list-style-type: none"> • The elements of the plan will be undertaken over a phased basis over its lifetime; • Each element of the plan with potential to affect water quality is considered to be isolated and small in scale; • There is a large distance of separation between the park and European sites in Dublin Bay over which any potential sediments and pollutants will be dispersed and absorbed to an extent that impacts on water quality in Dublin Bay will not be discernible; • Marine modelling data (Dowly & Bedri 2007) for Ringsend WWTP, which will treat foul waters from the proposed development, 	No

³ “Qualifying Interests” for SACs and “Special Conservation Interests” for SPAs based on relevant Statutory Instruments for each SPA, and NPWS Conservation Objectives for SACs downloaded from www.npws.ie in July 2015.

⁴ Sourced from NPWS online Conservation Objectives Generic Version 5.0 for SACs and 5.0 for SPAs, unless otherwise stated

Table 2: Analysis of European Sites within the zone of influence of the proposed development

			<p>indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe;</p> <ul style="list-style-type: none"> Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018); Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005); Despite the fact that Ringsend WWTP is currently operating above capacity and was non-compliant with several parameters as set under the EPA discharge licence, Dublin Bay as a whole is currently of "Unpolluted" water quality status (EPA, 2018); and, There is no data available suggesting water quality between the South Wall and the Tolka Estuary is adversely affecting qualifying interests of the European site. 	
North Dublin Bay SAC (000206)	c. 10.7km northeast	<p>Conservation Objectives: North Dublin Bay SAC 000206. Version 1 (NPWS, 2013c).</p> <p>[1140] Mudflats and sandflats not covered by seawater at low tide</p> <p>[1210] Annual vegetation of drift lines</p> <p>[1310] <i>Salicornia</i> and other annuals colonising mud and sand</p> <p>[1330] Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</p>	<p>No.</p> <p>Although the lands are connected to the European site via the foul water network, which discharges, following treatment to the Liffey Estuary/Dublin Bay, and via the surface water network, there is no possibility of significant effects for the following reasons:</p> <ul style="list-style-type: none"> The elements of the plan will be undertaken over a phased basis over its lifetime; Each element of the plan with potential to affect water quality is considered to be small in scale; 	No

Table 2: Analysis of European Sites within the zone of influence of the proposed development

		<p>[1395] Petalwort <i>Petalophyllum ralfsii</i></p> <p>[1410] Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>[2110] Embryonic shifting dunes</p> <p>[2120] Shifting dunes along the shoreline with <i>Ammophila arenaria</i> (white dunes)</p> <p>[2130] Fixed coastal dunes with herbaceous vegetation (grey dunes)</p> <p>[2190] Humid dune slacks</p>	<ul style="list-style-type: none"> • There is a large distance of separation between the park and European sites in Dublin Bay over which any potential sediments and pollutants will be dispersed and absorbed to an extent that impacts on water quality in Dublin Bay will not be discernible; • Marine modelling data (Dowly & Bedri 2007) for Ringsend WWTP, which will treat foul waters from the proposed development, indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe; • Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018); • Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005); • Despite the fact that Ringsend WWTP is currently operating above capacity and was non-compliant with several parameters as set under the EPA discharge licence, Dublin Bay as a whole is currently of "Unpolluted" water quality status (EPA, 2018); and, • There is no data available suggesting water quality between the South Wall and the Tolka Estuary is adversely affecting qualifying interests of the European site. 	
Howth Head SAC (000202)	> 15km northeast	Conservation Objectives: Howth Head SAC 000202. Version 1. (NPWS, 2016).	No.	No

Table 2: Analysis of European Sites within the zone of influence of the proposed development

		[1230] Vegetated sea cliffs of the Atlantic and Baltic coasts [4030] European dry heaths	There is no potential for the proposed development to affect dry heath or sea cliff habitat on Howth head given the distance and absence of any potential impact pathways to affect terrestrial habitats in the SAC.	
Rockabill to Dalkey Island SAC (003000)	c. 11.5km east	Conservation Objectives: Rockabill to Dalkey Island SAC 003000. Version 1 (NPWS, 2013j) [1170] Reefs [1351] Harbour porpoise <i>Phocoena phocoena</i>	No. Although there is a hydrological connection between the project and European sites in the Irish sea via the surface and foul water networks, the distance between the outfalls for surface and foul waters is such that any potential pollutants will be absorbed and diluted to an extent that they will not be discernible.	No
Special Protection Areas				
South Dublin Bay and River Tolka Estuary SPA (004024)	c. 5.8km northeast	Conservation Objectives: South Dublin Bay and River Tolka Estuary SPA 004024. Version 1 (NPWS, 2015). [A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i> [A130] Oystercatcher <i>Haematopus ostralegus</i> [A137] Ringed Plover <i>Charadrius hiaticula</i> [A141] Grey Plover <i>Pluvialis squatarola</i> [A143] Knot <i>Calidris canutus</i> [A144] Sanderling <i>Calidris alba</i> [A149] Dunlin <i>Calidris alpina</i> [A157] Bar-tailed Godwit <i>Limosa lapponica</i> [A162] Redshank <i>Tringa totanus</i> [A179] Black-headed Gull <i>Croicocephalus ridibundus</i>	No. Although the lands are connected to the European site via the foul water network, which discharges, following treatment to the Liffey Estuary/Dublin Bay, and via the surface water network, there is no possibility of significant effects for the following reasons: <ul style="list-style-type: none"> • The elements of the plan will be undertaken over a phased basis over its lifetime; • Each element of the plan with potential to affect water quality is considered to be small in scale; • There is a large distance of separation between the park and European sites in Dublin Bay over which any potential sediments and pollutants will be dispersed and absorbed to an extent that impacts on water quality in Dublin Bay will not be discernible; • Marine modelling data (Dowly & Bedri 2007) for Ringsend WWTP, which will treat foul waters from the proposed development, 	No

Table 2: Analysis of European Sites within the zone of influence of the proposed development

		<p>[A192] Roseate Tern <i>Sterna dougallii</i></p> <p>[A193] Common Tern <i>Sterna hirundo</i></p> <p>[A194] Arctic Tern <i>Sterna paradisaea</i></p> <p>[A999] Wetland and Waterbirds</p>	<p>indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe;</p> <ul style="list-style-type: none"> Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018); Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005); Despite the fact that Ringsend WWTP is currently operating above capacity and was non-compliant with several parameters as set under the EPA discharge licence, Dublin Bay as a whole is currently of "Unpolluted" water quality status (EPA, 2018); and, There is no data available suggesting water quality between the South Wall and the Tolka Estuary is adversely affecting qualifying interests of the European site. 	
North Bull Island SPA (004006)	c. 10.7km south	<p>Conservation Objectives: North Bull Island SPA 004006. Version 1 (NPWS, 2015).</p> <p>[A046] Light-bellied Brent Goose <i>Branta bernicla hrota</i></p> <p>[A048] Shelduck <i>Tadorna tadorna</i></p> <p>[A052] Teal <i>Anas crecca</i></p> <p>[A054] Pintail <i>Anas acuta</i></p> <p>[A056] Shoveler <i>Anas clypeata</i></p> <p>[A130] Oystercatcher <i>Haematopus ostralegus</i></p>	<p>No.</p> <p>Although the lands are connected to the European site via the foul water network, which discharges, following treatment to the Liffey Estuary/Dublin Bay, and via the surface water network, there is no possibility of significant effects for the following reasons:</p> <ul style="list-style-type: none"> The elements of the plan will be undertaken over a phased basis over its lifetime; Each element of the plan with potential to affect water quality is considered to be small in scale; 	No

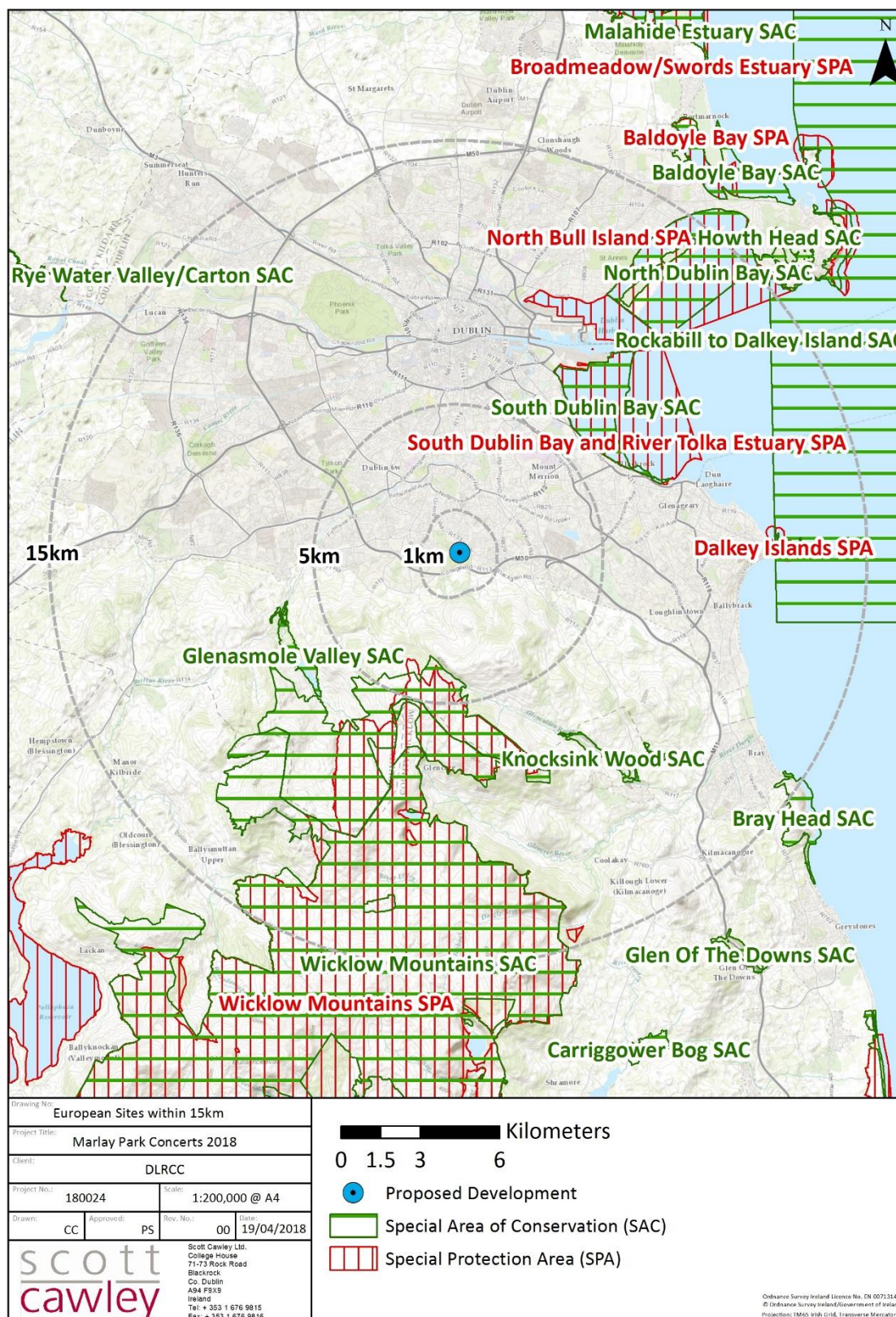
Table 2: Analysis of European Sites within the zone of influence of the proposed development

		<p>[A140] Golden Plover <i>Pluvialis apricaria</i></p> <p>[A141] Grey Plover <i>Pluvialis squatarola</i></p> <p>[A143] Knot <i>Calidris canutus</i></p> <p>[A144] Sanderling <i>Calidris alba</i></p> <p>[A149] Dunlin <i>Calidris alpina</i></p> <p>[A156] Black-tailed Godwit <i>Limosa limosa</i></p> <p>[A157] Bar-tailed Godwit <i>Limosa lapponica</i></p> <p>[A160] Curlew <i>Numenius arquata</i></p> <p>[A162] Redshank <i>Tringa totanus</i></p> <p>[A169] Turnstone <i>Arenaria interpres</i></p> <p>[A179] Black-headed Gull <i>Croicocephalus ridibundus</i></p> <p>[A999] Wetlands & Waterbirds</p>	<ul style="list-style-type: none"> • There is a large distance of separation between the park and European sites in Dublin Bay over which any potential sediments and pollutants will be dispersed and absorbed to an extent that impacts on water quality in Dublin Bay will not be discernible; • Marine modelling data (Dowly & Bedri 2007) for Ringsend WWTP, which will treat foul waters from the proposed development, indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe; • Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018); • Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005); • Despite the fact that Ringsend WWTP is currently operating above capacity and was non-compliant with several parameters as set under the EPA discharge licence, Dublin Bay as a whole is currently of "Unpolluted" water quality status (EPA, 2018); and, • There is no data available suggesting water quality between the South Wall and the Tolka Estuary is adversely affecting qualifying interests of the European site. 	
Dalkey Islands SPA (004172)	c. 11.2km east of the park	<p>[A192] Roseate Tern <i>Sterna dougallii</i></p> <p>[A193] Common Tern <i>Sterna hirundo</i></p> <p>[A194] Arctic Tern <i>Sterna paradisaea</i></p>	<p>No.</p> <p>As per North Bull Island SPA, above</p>	No

Table 2: Analysis of European Sites within the zone of influence of the proposed development

Howth Head Coast SPA (004113)	>15km northeast	[A188] Kittiwake <i>Rissa tridactyla</i>	No. As per North Bull Island SPA, above	No
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Figure 1: All European Sites within 15km of the proposed development



5 Conclusions of the Screening Assessment

Following an examination, analysis and evaluation of the relevant information, including in particular, the nature of the plan and its potential relationship with European sites, as well as considering other plans and projects, and applying the precautionary principle, it is the professional opinion of the authors of this report that **it is possible to rule out likely significant effects on all European sites**. The judgement has been reached for the reasons outlined below:

The AA Screening process has identified that there is a potential source-receptor-pathway between the plan and European sites in Dublin Bay via the surface water and foul water network. Nonetheless, there is no possibility of significant effects on European sites arising from the plan either alone or in combination with other plans and projects due to the following:

- The elements of the plan will be undertaken over a phased basis over its lifetime;
- Each element of the plan with potential to affect water quality is considered to be small in scale;
- There is a large distance of separation between the park and European sites in Dublin Bay over which any potential sediments and pollutants will be dispersed and absorbed to an extent that impacts on water quality in Dublin Bay will not be discernible;
- Marine modelling data (Dowly & Bedri 2007) for Ringsend WWTP, which will treat foul waters from the proposed development, indicates that discharged effluent is rapidly mixed and dispersed to low levels via tidal mixing within a short distance of the outfall pipe;
- Recent modelling of water quality in Dublin Bay for the Ringsend WWTP Upgrade Project demonstrates that the effects of nutrients from Ringsend WWTP are largely confined to the area between the South Wall and the Tolka Estuary (Irish Water, 2018);
- Enriched water entering Dublin Bay has been shown to rapidly mix and become diluted such that the plume is often indistinguishable from the rest of bay water (O'Higgins and Wilson, 2005);
- Despite the fact that Ringsend WWTP is currently operating above capacity and was non-compliant with several parameters as set under the EPA discharge licence, Dublin Bay as a whole is currently of "Unpolluted" water quality status (EPA, 2018); and,
- There is no data available suggesting water quality between the South Wall and the Tolka Estuary is adversely affecting qualifying interests of the European site.

However, the authors of this report acknowledge that it is for Dún Laoghaire-Rathdown County Council, as the competent authority, to carry out a screening for AA and to reach one of the following determinations:

- a) AA of the proposed development is required if it cannot be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites;
- b) AA of the proposed development is not required if it can be excluded, on the basis of objective information, that the proposed development, individually or in combination with other plans or projects, will have a significant effect on any European sites.

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APPENDIX 1: Proposed Marlay Park Masterplan

