

AA SCREENING REPORT

Marina Park Phase II

Cork City Council

PROJECT NO. 0681

June 2022



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for

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APPROPRIATE ASSESSMENT SCREENING REPORT

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1 INTRODUCTION

1.1 Project Contractual Basis & Parties Involved

This report has been prepared by O'Connor Sutton Cronin & Associates Ltd. (OCSC) at the request of their Client, Cork County Council. The site for assessment comprises 11.848ha of underused land and existing parkland. Marina Park Phase II is located between Centre Park Road and Blackrock Harbour in Cork City. The project plans to transform the existing landscape into an eco-park with high-quality public spaces while enhancing natural heritage and biodiversity.

The report was completed by Luis lemma BSc, MSc, Ph.D, Senior Ecologist, Eadaoin Butler BSc, Consultant Ecologist; reviewed by Glenda Barry, BSC, MSC, Principal Consultant with OCSC; and approved by Eleanor Burke, BSc, MSc, DAS, MEnvSc, CSci, Technical Principal, and the OCSC Environmental Division Manager.

1.2 Legislative Context

The Habitats Directive provides legal protection for habitats and species of European importance. The overall aim of the Habitats Directive is to maintain or restore the “favourable conservation status” of habitats and species of European Community Interest. These habitats and species are listed in the Habitats and Birds Directives (Habitats Directive as above and Directive 2009/147/EC on the conservation of wild birds) with Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) designated to afford protection to the most vulnerable of them. These two designations are collectively known as European Sites. Articles 6(3) and 6(4) of the Habitats Directive set out the decision-making tests for plans and projects likely to affect such sites. Article 6(3) establishes the requirement for AA. These requirements are implemented in the Republic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning Development Act 2000 (as amended).

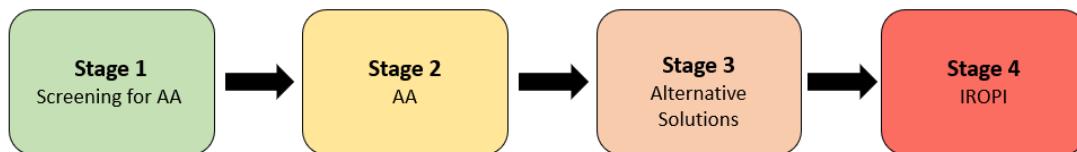
This AA screening is based on best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and ‘grey’ literature was conducted. This included a detailed review of the National Parks and Wildlife Service (NPWS) website which contains mapping and available reports for relevant sites and describes sensitive qualifying interests/ special conservation interests and their conservation objectives. The EPA EnVision map viewer (EPA 2022) and available reports were also reviewed, as was the NPWS (2013) publication *“The Status of Protected EU Habitats and Species in Ireland”*.

The ecological desktop study completed for the AA screening of the proposed development comprised of the following elements:

- Identification of European sites with 15 km of the proposed project boundary with identification of potential pathway links for specific sites (if relevant) greater than 15 km from the proposed project boundary;

- Review of the NPWS site synopses and conservation objectives for European sites within 15 km and for which potential pathways from the proposed site have been identified; and
- Examination of available information on protected species.

There are four main stages in the AA process as follows:



IROPI: imperative reasons of overriding public interest (IROPI),

Stage One: Screening

The process identifies the likely impacts upon a European site of a project or plan, either alone or in combination with other projects or plans and considers whether these impacts are likely to be significant.

Stage Two: Appropriate Assessment

The consideration of the impact on the integrity of the European site of the project or plan, either alone or in combination with other projects or plans, with respect to the site's structure and function and its conservation objectives. Additionally, where there are adverse impacts, an assessment of the potential mitigation of those impacts. If adequate mitigation is proposed to ensure no significant adverse impacts on European sites, then the process may end at this stage. However, if the likelihood of significant impacts remains, then the process must proceed to Stage Three.

Stage Three: Assessment of Alternative Solutions

The process that examines alternative ways of achieving the objectives of the project or plan that avoids adverse impacts on the integrity of the European site.

Stage Four: Assessment where no alternative solutions exist and where adverse impacts remain

An assessment of compensatory measures where, in the light of an assessment of imperative reasons of overriding public interest (IROPI), it is deemed that the project or plan should proceed.

The Habitats Directive promotes a hierarchy of avoidance, mitigation, and compensatory measures. This approach aims to avoid any impacts on European sites by identifying possible impacts early in the plan or project making process and avoiding such impacts. Secondly, the approach involves the application of mitigation measures, if necessary, during the AA process to the point where no adverse impacts on the site(s) remain. If potential impacts on European sites remain and no further practicable mitigation is possible, the approach requires the consideration of alternative solutions. If no alternative solutions are identified and the plan or project is required for imperative reasons of overriding public interest, then compensation measures are required for any remaining adverse effects.

Ecological impact assessment of potential effects on European sites is conducted following a standard source-pathway-receptor model where, in order for an effect to be established, all

three elements of this mechanism must be in place. The absence or removal of one of the elements of the mechanism is sufficient to conclude that a potential effect is not of any relevance or significance.

- Source(s) – e.g. pollutant run-off from proposed works;
- Pathway(s) – e.g. groundwater connecting proposed works to nearby qualifying wetland habitats; and
- Receptor(s) – qualifying aquatic habitats and species of European sites.

In relation to this report, receptors are the ecological features that are known to be utilised by the qualifying interests or special conservation interests of a European site. A source is any identifiable element of the proposed development that is known to interact with ecological processes. The pathways are any connections or links between the source and the receptor. This report provides information on whether direct, indirect, and cumulative adverse effects could arise from the proposed development.

1.3 Methodology and Approach

The AA Screening has been prepared taking into account legislation including the aforementioned legislation and guidance including the following:

- *Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities*, Department of the Environment, Heritage and Local Government, 2009; 11 February 2010 revision.
- *Commission Notice: Managing Natura 2000 sites – The provisions of Article 6 of the Habitats Directive 92/43/EEC*, European Commission, 2018.
- *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 DG, 2002.
- *Managing Natura 2000 sites: the Provisions of Article 6 of the Habitats Directive 92/43/EEC*, European Commission, 2000.
- *Appropriate Assessment Screening for Development Management*. Office of the Planning Regulator, March 2021.

The above documents have been used to carry out a desktop AA Screening based on the best available guidance and operating within the applicable legislation.

1.4 Scope of Works

To meet the project objectives the following scope of works were completed:

- Present a discussion of the proposed development and its potential effects on its receiving environment;
- Present a discussion of the current site status and key environmental influences around the site;

- Undertake and present a review of European sites in the region of the proposed development;
- Conduct and present a discussion on the screening of the identified European sites in relation to the potential effects arising from the project; and
- Provide a conclusion as to whether the proposed development is likely to, either alone or in combination with other plans or projects, have a significant effect on any European site.

1.5 Limitations

This Appropriate Assessment Screening Report has been prepared for the sole use of Cork City Council ("the Client"). No other warranty, expressed or implied, is made as to the professional advice included in this report or any other services provided by OCSC.

This assessment is based on a review of available historical information, environmental records, consultations, relevant guidance information, and reports from third parties. All information received has been taken in good faith as being true and representative.

This report has been prepared in line with best industry standards. The methodology adopted and the sources of information used by OCSC in providing its services are outlined in this Report. The assessment undertaken by OCSC and described was undertaken in May 2022 and is based on the information available during that period. The scope of this Report and the services are accordingly factually limited by these circumstances.

OCSC disclaim any undertaking or obligation to advise any person of any change in any matter affecting the Report, which may come or be brought to OCSC's attention after the date of the Report.

The conclusions presented in this report represent OCSC's best professional judgement based on review of the relevant information available at the time of writing. The opinions and conclusions presented are valid only to the extent that the information provided was accurate and complete.

2 DESCRIPTION OF THE EXISTING ENVIRONMENT

2.1 Project Description

This Appropriate Assessment (AA) Screening report is prepared for the underused land and existing parkland of Marina Park. The Marina Park Phase II is located between Centre Park Road and Blackrock Harbour in Cork City. The project plans to transform the existing landscape into an eco-park with high-quality public spaces while enhancing natural heritage and biodiversity with the addition of a playground, woodland pathways and platforms, picnic tables, fitness stations and a canopy tree walk.

2.2 Site Location

The site is located in the Marina Park in Cork City. The study area location is identified in Figure 2.1.

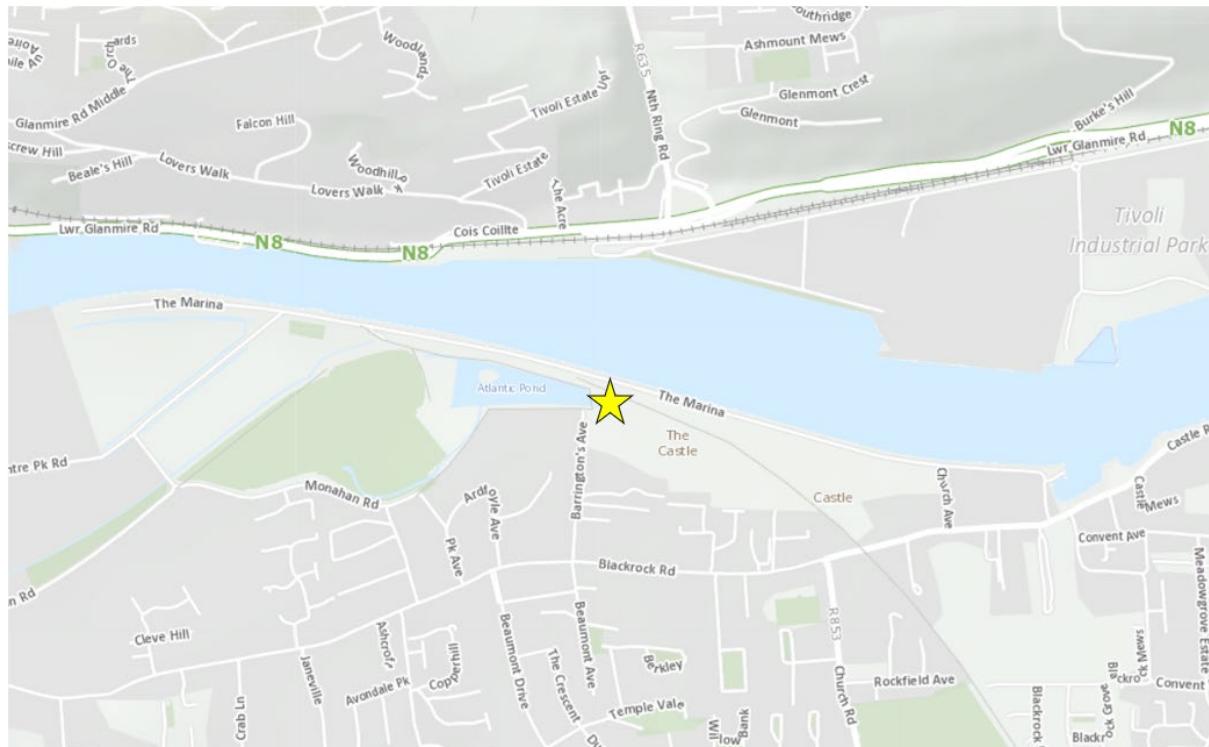


Figure 2.1: Approximate Site Location shown as a yellow star in red - Regional Location (Source: OSI, 2022).

2.3 Study area

The study area consists of the Marina park, the Atlantic Pond and structures such as Barrington's Folly and the slipway at Dundanion Castle. The site has a large number of trees within its boundary. Refer to Figure 2.2 for an aerial photograph.



Figure 2.2: Site boundary (Source: EPA Maps, 2022).

2.4 Surrounding Land Use

The immediately surrounding area consists of industrial, residential, educational, recreational/ community, and commercial/retail business land uses. To the north, the study area is bounded by the Marina Promenade and the River Lee. Further north are residential areas and the Tivoli Docks and Industrial Estate. Residential areas lie to the south of the site. To the east is Cork boat club, residential housing and Lough Mahon. Páirc Uí Chaoimh, Marina Commercial Park and Kennedy quay are located to the west of the site. Refer to Table 2.1 for a full list of adjacent land uses.

Table 2.1: Adjacent Land Uses

BOUNDARY	LAND USE
North	Bounded by the Marina Promenade and the River Lee, the Tivoli Docks and Industrial Estate and residential housing
South	Residential housing
East	Cork boat club, residential housing and Lough Mahon
West	Páirc Uí Chaoimh, Marina Commercial Park and Kennedy quay

2.5 Hydrology

There is a surface water feature mapped in close proximity of the site area. The EPA designated transitional waterbody Lee (Cork) Estuary Lower (Code IE_SW_060_0750) runs from west to east adjacent to the site area and flows into Lough Mahon. Both the Cork Harbour SPA and the Great Island Channel SAC border Lough Mahon in portions of its route. Based on the most recent water quality information 2013-2018, the Lee (Cork) Estuary Lower has an overall Water Framework Directive (WFD) Status of 'Moderate' as shown in Figure 2.3. The EPA spatial dataset shows that the WFD Transitional Waterbody Risk associated with the river is 'At Risk' (EPA 2022) as shown in Figure 2.4. WFD summary information for this stream is summarised in Table 2.2.

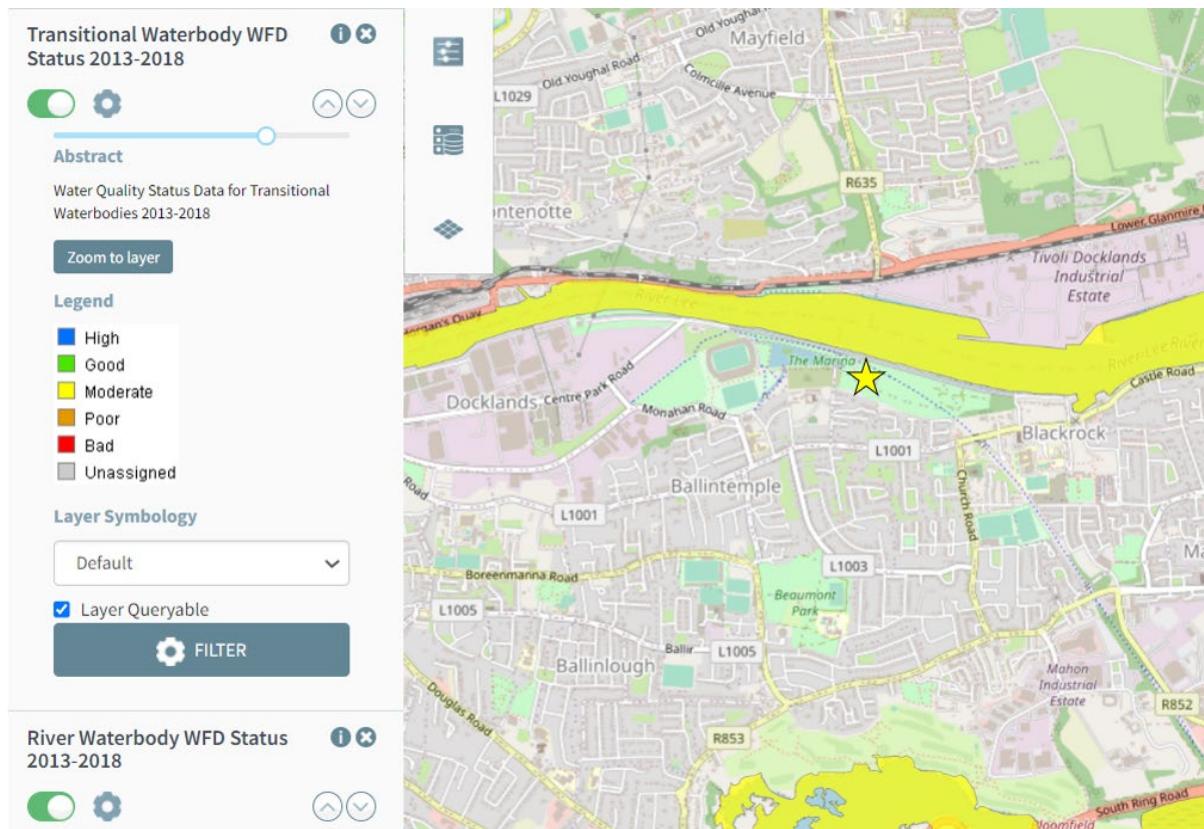


Figure 2.3: River Waterbody WFD Status (approximate site location indicated by the yellow star) (Source: EPA Maps, 2022).

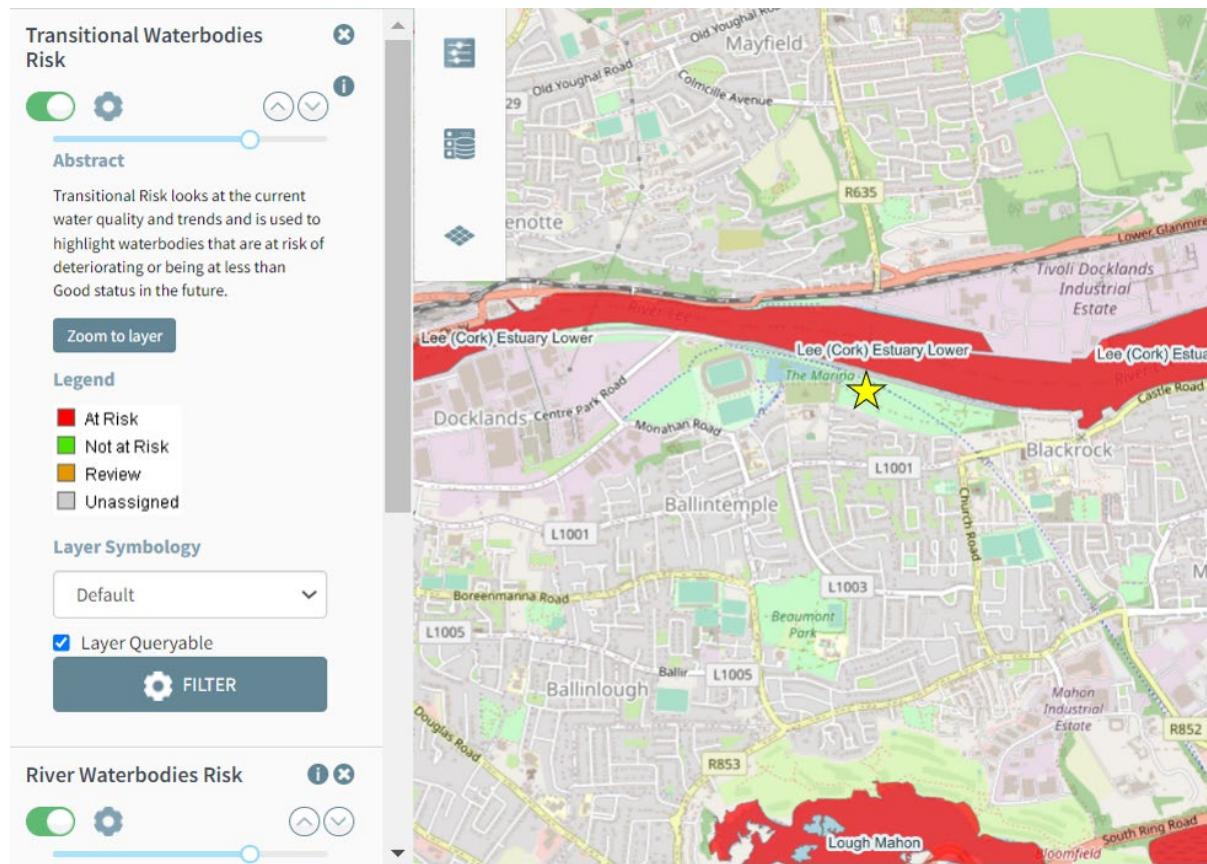


Figure 2.4: River Waterbodies Risk (approximate site location indicated by the yellow star) (Source: EPA Maps, 2022).

Table 2.2: WFD Summary Information – Lee (Cork) Estuary Lower.

Waterbody Code	IE_SW_060_0900
Waterbody Name	Lee (Cork) Estuary Lower
Waterbody Type	Transitional
Iteration	SW 2013-2018
Status	Moderate
Risk	At Risk

3 SCREENING FOR APPROPRIATE ASSESSMENT

3.1 Screening Process

This stage of the process identifies any likely significant effects to European sites from a project or plan, either alone or in combination with other projects or plans. The screening phase was progressed in stages during which a series of questions were asked to determine:

- Whether a plan or project can be excluded from AA requirements because it is directly connected with or necessary to the management of a European Site.
- Whether the project will have a potentially significant effect on a European Site, either alone or in combination with other projects or plans, in view of the site's conservation objectives or if residual uncertainty exists regarding potential impacts.

An important element of the AA process is the identification of the “conservation objectives”, “Qualifying Interests” (QIs), and/ or “Special Conservation Interests” (SCIs) of European sites requiring assessment. QIs are the habitat features and species listed in Annexes I and II of the Habitats Directive for which each European Site has been designated and afforded protection. SCIs are wetland habitats and bird species listed within Annexes I and II of the Birds Directive. It is also vital that the threats to the ecological / environmental conditions that are required to support QIs and SCIs are considered as part of the assessment.

Site-Specific Conservation Objectives (SSCOs) have been designed to define favourable conservation status for a particular habitat or species at that site. According to the European Commission interpretation document ‘Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC’, paragraph 4.6(3) states:

“The integrity of a site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site’s conservation objectives.”

Favourable conservation status of a habitat is achieved when:

- Its natural range, and area it covers within that range, are stable or increasing;
- The specific structure and functions which are necessary for its long-term maintenance exist and are likely to continue to exist for the foreseeable future; and
- The conservation status of its typical species is favourable.

The favourable conservation status of a species is achieved when:

- Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats;
- The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future; and
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

3.2 Identification of relevant European Sites

This section of the screening process describes the European sites which exist within the Zone of Influence (ZOI) of the site. The Department of the Environment (2010 revised) Guidance on AA recommends a 15 km buffer zone to be considered for Natura 2000 sites, but projects

are evaluated on a case-by-case basis. A review of all sites within the ZOI has allowed a determination to be made that in the absence of significant hydrological links the characteristics of the proposed works will not impose effects beyond the 15 km ZOI.

European sites that occur within 15 km of the proposed works are listed in Table 3.1 and illustrated in Figure 3.1. Details on the specific QIs and SCIs of each European Site are also identified in Table 3.1 as well as site-specific threats and vulnerabilities of each of the sites.

In order to determine the potential for effects from the proposed works, information on the qualifying features, known vulnerabilities and threats to site integrity pertaining to any potentially affected European sites was reviewed. Background information on threats to individual sites and vulnerability of habitats and species that was used during this assessment included the following:

- Ireland's Article 17 Report to the European Commission "*Status of EU Protected Habitats and Species in Ireland*" (NPWS, 2019);
- Site Synopses (NPWS 2019a); and
- NATURA 2000 Standard Data Forms (NPWS 2019b).

The assessment takes consideration of the site-specific conservation objectives (SSCOs) of each of the sites within the ZOI. Since the conservation objectives for the European sites focus on maintaining the favourable conservation condition of the QIs/SCIs of each site, the screening process focused on assessing the potential effects of the proposed works against the QIs/SCIs of each site. The conservation objectives for each site were consulted throughout the assessment process.

- Conservation objectives that have been considered by the assessment are included in the following NPWS documents:
 - Conservation objectives for Cork Harbour SPA [Site Code 004030]. Version 1.0 – Department of Arts, Heritage and the Gaeltacht (Dec 2014).
 - Conservation objectives for Great Island Channel SAC [Site Code 001058]. Version 1.0 – Department of Arts, Heritage and the Gaeltacht (June 2014).
 - Conservation objectives for Blackwater River (Cork/Waterford) SAC [Site Code 002170]. Version 1.0 – Department of Arts, Heritage and the Gaeltacht (July 2012).

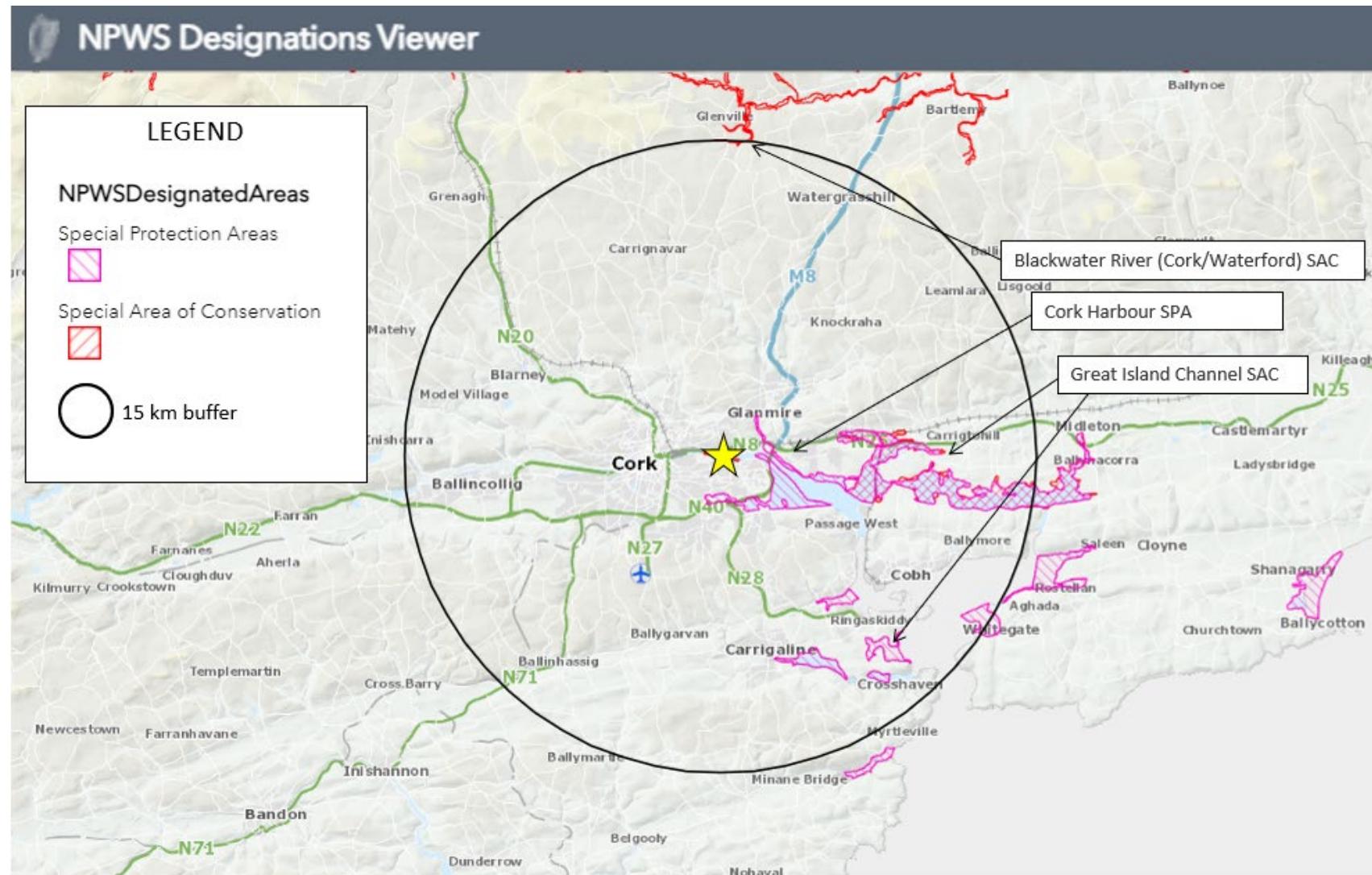


Figure 3.1: Designated Sites within 15km radius. Site location shown as a yellow star (Source: NPWS Maps, 2022).

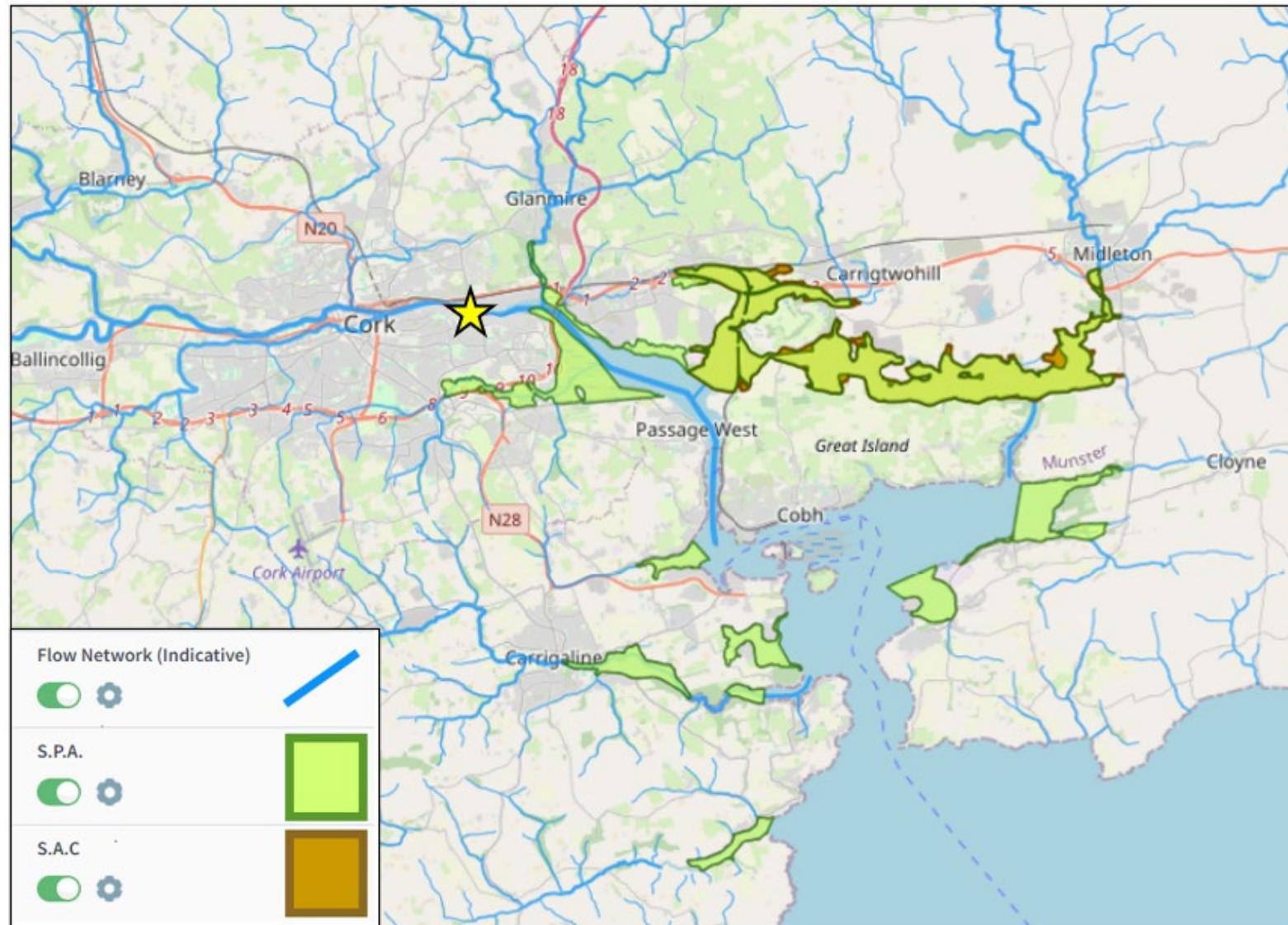


Figure 3.2: European Sites and EPA Rivers (approx. site location indicated by the yellow star. (Source: EPA Maps, 2022).

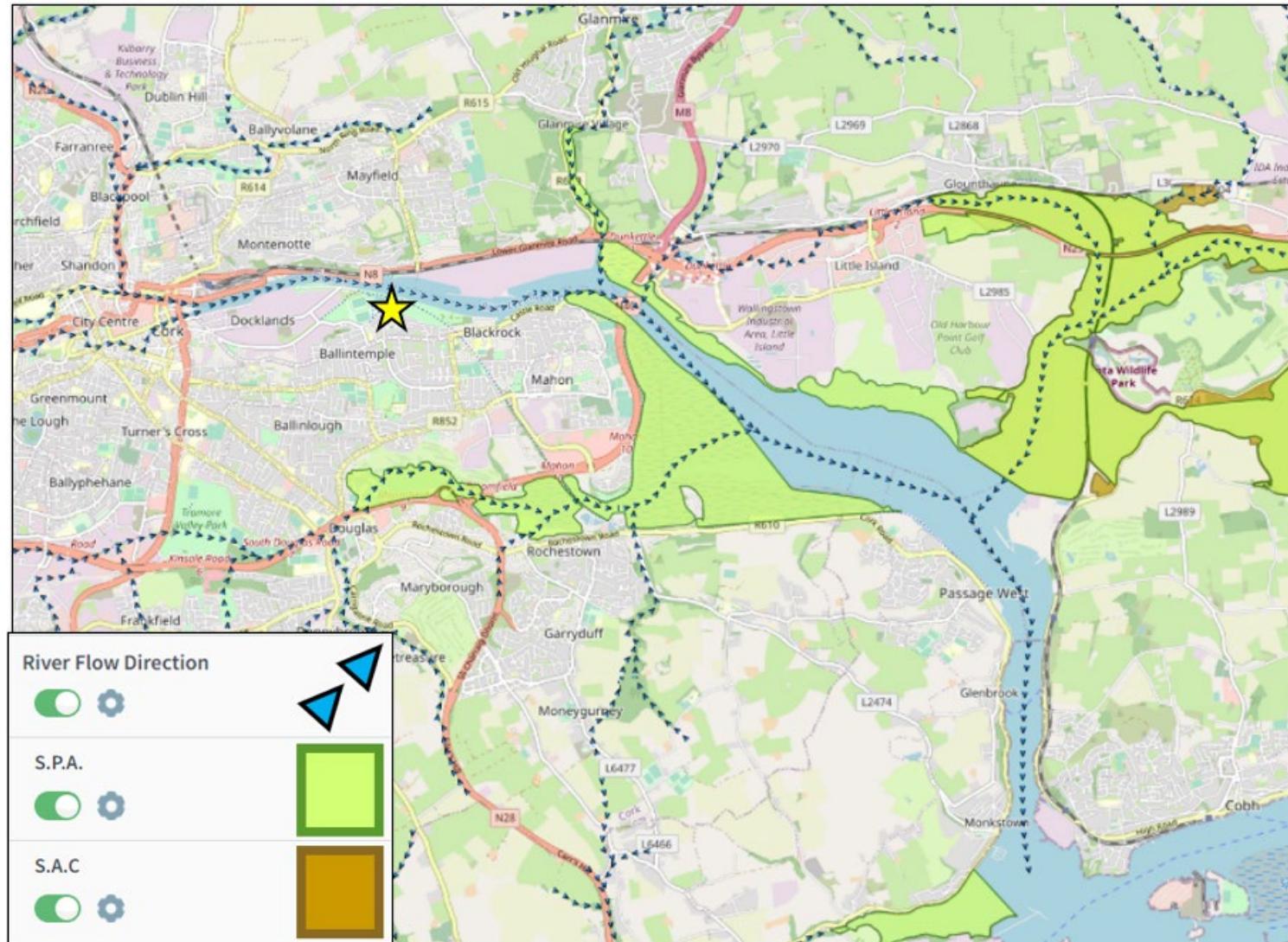


Figure 3.3: Nearest European Sites, EPA Rivers relative to study area (site location indicated by the yellow star)(Source: EPA Maps, 2022).

Table 3.1: European Sites within 15 kilometres (ZOI) to the proposed site.

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Site Synopsis and Existing threats or Sensitivities
004030	Cork Harbour SPA	1.05 E	<p>[A004] Little Grebe (<i>Tachybaptus ruficollis</i>) [A005] Great Crested Grebe (<i>Podiceps cristatus</i>) [A017] Cormorant (<i>Phalacrocorax carbo</i>) [A028] Grey Heron (<i>Ardea cinerea</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A050] Wigeon (<i>Anas penelope</i>) [A052] Teal (<i>Anas crecca</i>) [A054] Pintail (<i>Anas acuta</i>) [A056] Shoveler (<i>Anas clypeata</i>) [A069] Red-breasted Merganser (<i>Mergus serrator</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A142] Lapwing (<i>Vanellus vanellus</i>) [A149] Dunlin (<i>Calidris alpina</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A160] Curlew (<i>Numenius arquata</i>) [A162] Redshank (<i>Tringa totanus</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A182] Common Gull (<i>Larus canus</i>) [A183] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A193] Common Tern (<i>Sterna hirundo</i>) [A999] Wetland and Waterbirds</p>	<p>Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owennacurra. The SPA site comprises most of the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas River Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy River Estuary, Whitegate Bay, Ringabella Creek and the Rostellan and Poulnabibe inlets. The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Little Grebe, Great Crested Grebe, Cormorant, Grey Heron, Shelduck, Wigeon, Teal, Mallard, Pintail, Shoveler, Red-breasted Merganser, Oystercatcher, Golden Plover, Grey Plover, Lapwing, Dunlin, Black-tailed Godwit, Bar-tailed Godwit, Curlew, Redshank, Greenshank, Blackheaded Gull, Common Gull, Lesser Black-backed Gull and Common Tern. 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. A range of passage waders occurs regularly in autumn, including such species as Ruff (5-10), Spotted Redshank (1-5) and Green Sandpiper (1-5). Numbers vary between years and usually a few of each of these species over-winter. Cork Harbour has a nationally important breeding colony of Common Tern (102 pairs in 1995). The birds have nested in Cork Harbour since about 1970, and since 1983 on various artificial structures, notably derelict steel barges and the roof of a Martello Tower. The birds are monitored annually and the chicks are ringed. Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (i.e. > 20,000) and also for its populations of Black-tailed Godwit and Redshank. In addition, it supports nationally important wintering populations of 22 species, as well as a nationally important breeding colony of Common Tern. Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive, i.e. Whooper Swan,</p>

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Site Synopsis and Existing threats or Sensitivities
				Little Egret, Golden Plover, Bar-tailed Godwit, Ruff, Mediterranean Gull and Common Tern. The site provides both feeding and roosting sites for the various bird species that use it. Cork Harbour is also a Ramsar Convention site and part of Cork Harbour SPA is a Wildfowl Sanctuary.
001058	Great Island Channel SAC	5.2 E	[1140] Mudflats and sandflats not covered by seawater at low tide [1330] Atlantic salt meadows (Glauco-Puccinellietalia maritimae)	The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. It is an integral part of Cork Harbour which contains several other sites of conservation interest. Geologically, Cork Harbour consists of two large areas of open water in a limestone basin, separated from each other and the open sea by ridges of Old Red Sandstone. Within this system, Great Island Channel forms the eastern stretch of the river basin and, compared to the rest of Cork Harbour, is relatively undisturbed. Within the site is the estuary of the Owennacurra and Dungourney Rivers. These rivers, which flow through Midleton, provide the main source of freshwater to the North Channel. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. Owing to the sheltered conditions, the intertidal flats are composed mainly of soft muds. The saltmarshes are scattered through the site and are all of the estuarine type on mud substrate. The site is extremely important for wintering waterfowl and is considered to contain three of the top five areas within Cork Harbour, namely North Channel, Harper's Island and Belvelly-Marino Point. Shelduck is the most frequent duck species with 800-1,000 birds centred on the Fota/Marino Point area. There are also large flocks of Teal and Wigeon, especially at the eastern end. The site is an integral part of Cork Harbour which is a wetland of international importance for the birds it supports. Overall, Cork Harbour regularly holds over 20,000 waterfowl and contains internationally important numbers of Black-tailed Godwit (1,181) and Redshank (1,896), along with nationally important numbers of nineteen other species. Furthermore, it contains large Dunlin (12,019) and Lapwing (12,528) flocks. All counts are average peaks, 1994/95 – 1996/97. Much of the site falls within Cork Harbour Special Protection Area, an important bird area designated under the

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Site Synopsis and Existing threats or Sensitivities
				E.U. Birds Directive. The site is of major importance for the two habitats listed on Annex I of the E.U. Habitats Directive, as well as for its important numbers of wintering waders and wildfowl. It also supports a good invertebrate fauna.
002170	Blackwater River (Cork/Waterford) SAC	14.7 N	<ul style="list-style-type: none"> [1130] Estuaries [1140] Tidal Mudflats and Sandflats [1220] Perennial Vegetation of Stony Banks [1310] Salicornia Mud [1330] Atlantic Salt Meadows [1410] Mediterranean Salt Meadows [3260] Floating River Vegetation [91A0] Old Oak Woodlands [91E0] Alluvial Forests* [1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>) [1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>) [1095] Sea Lamprey (<i>Petromyzon marinus</i>) [1096] Brook Lamprey (<i>Lampetra planeri</i>) [1099] River Lamprey (<i>Lampetra fluviatilis</i>) [1103] Twaite Shad (<i>Alosa fallax</i>) [1106] Atlantic Salmon (<i>Salmo salar</i>) [1355] Otter (<i>Lutra lutra</i>) [1421] Killarney Fern (<i>Trichomanes speciosum</i>) 	<p>The River Blackwater is one of the largest rivers in Ireland, draining a major part of Co. Cork and five ranges of mountains. In times of heavy rainfall the levels can fluctuate widely by more than 12 feet on the gauge at Careysville. The peaty nature of the terrain in the upper reaches and of some of the tributaries gives the water a pronounced dark colour. The site consists of the freshwater stretches of the River Blackwater as far upstream as Ballydesmond, the tidal stretches as far as Youghal Harbour and many tributaries, the larger of which include the Licky, Bride, Flesk, Chimneyfield, Finisk, Araglin, Awbeg (Buttevant), Clyda, Glen, Allow, Dalua, Brogeen, Rathcool, Finnow, Owentraglin and Awnaskirtaun. The portions of the Blackwater and its tributaries that fall within this SAC flow through the counties of Kerry, Cork, Limerick, Tipperary and Waterford. Nearby towns include Rathmore, Millstreet, Kanturk, Banteer, Mallow, Buttevant, Doneraile, Castletownroche, Fermoy, Ballyduff, Rathcormac, Tallow, Lismore, Cappoquin and Youghal.</p>

3.3 Assessment Criteria

3.3.1 Exclusion from Appropriate Assessment

As set out in the provisions of the Habitats Directive, Plans or Projects that are directly connected with or necessary to the management of a European Site do not require AA. For this exception to apply, management is required to be interpreted narrowly as nature conservation management in the sense of Article 6(1) of the Habitats Directive. This refers to specific measures to address the ecological requirements of annexed habitats and species (and their habitats) present on a site(s). The relationship should be shown to be direct and not a by-product of the plan, even if this might result in positive or beneficial effects for a site(s).

In this case however, the proposed works at the Marina Park Phase II in Cork City is neither necessary for, nor directly connected with the management of a European Site. As such, the development cannot be excluded from AA.

3.3.2 Elements of the works with the potential to give risk to Effects

The construction and operational phases of the proposed upgrades have the potential to introduce effects such as indirect disturbance due to noise/vibrations. These effects are examined in detail in relation to the sensitive receptors of each of the European sites identified with regard to the conservation objectives and the potential pathways for effects.

3.3.3 Identification of Potential Effects and Screening of Sites

This section documents the final stage of the screening process. It uses the information collected on the sensitivity of each European Site and describes any potential effects to the integrity of European sites resulting from the proposed works. This assumes the absence of any controls, conditions, or mitigation measures. In determining the potential for effects, a number of factors have been taken into account. Firstly, the sensitivity and reported threats to the European Site and secondly, the individual elements of the proposed works and the potential effect they may cause to the site were considered.

Sites are screened out based on one or a combination of the following criteria:

- Where it can be shown that there are no significant pathways such as hydrological links between activities of the proposed works and the site to be screened;
- Where the site is located at such a distance from proposed works that effects are not foreseen; and
- Where it is that known threats or vulnerabilities at a site cannot be linked to potential impacts that may arise from the proposed works.

3.4 Assessment of Significance of Potential Effects

Assessment is the process of evaluating the importance or significance of project/plan effects (whether negative or positive). The following parameters are described when characterising impacts (following guidance from the Chartered Institute of Ecology and Environmental Management, Environmental Protection Agency, and National Roads Authority):

Direct and Indirect Impacts – An impact can be caused either as a direct or as an indirect consequence of a proposed development;

Magnitude - Magnitude refers to size, amount, intensity, and volume. It should be quantified if possible and expressed in absolute or relative terms (e.g. the amount of habitat lost, percentage change to habitat area, percentage decline in a species population). Magnitude measures the size of an impact, which is described as high, medium, low, very low, or negligible.

Extent - The extent is the spatial or geographical area over which the impact/effect may occur under a suitably representative range of conditions (e.g. noise transmission under water);

Duration - The time for which the effect is expected to last prior to recovery or replacement of the resource or feature.

- Temporary: Up to 1 Year;
- Short Term: The effects would take 1-7 years to be mitigated;
- Medium Term: The effects would take 7-15 years to be mitigated;
- Long Term: The effects would take 15-60 years to be mitigated; and
- Permanent: The effects would take 60+ years to be mitigated.

Likelihood – The probability of an impact/effect occurring taking into account all available information.

- Certain/Near Certain: >95% chance of occurring as predicted;
- Probable: 50-95% chance as occurring as predicted;
- Unlikely: 5-50% chance as occurring as predicted; and
- Extremely Unlikely: <5% chance as occurring as predicted.

EC identified in '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 DG, 2001' outlines the types of effects that may affect European sites. These include effects from the following activities:

- Land take
- Resource Requirements (Drinking Water Abstraction Etc.)
- Emissions (Disposal to Land, Water or Air)
- Excavation Requirements
- Transportation Requirements
- Duration of Construction, Operation, Decommissioning

In addition, the guidance outlines the following likely changes that may occur at a designated site, which may result in effects on the integrity and function of that site:

- 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

The elements detailed above were considered with specific reference to each of the European sites identified within a 15km radius.

3.4.1 Land Take/Habitat Loss

The proposed development will see no land take with the repurposing and upgrading of Marina Park Phase II. The nearest European Site or qualifying habitat feature is at a distance of 1.05km from the site (i.e. Cork Harbour SPA). This, in combination with the type of work being carried out, will mean that effects posed to European sites in this respect will be unlikely.

3.4.2 Resource Requirements

There are no resource requirements (i.e. mineral/drinking water abstractions, etc.) for the proposed development which will be additional to existing requirements. Therefore, there will be no interactions with resources necessary for the maintenance of the ecological integrity of any European sites.

3.4.3 Duration of Works

The construction phase of the proposed works is anticipated to short term in nature. Given the relatively small-scale and short-term nature of the construction works, the duration of the works will not have a significant impact on nearby European sites.

3.4.4 Emissions (Disposal to Land, Water or Air)

Construction Phase:

Construction phase elements of the plan may give rise to increased temporary site effects such as noise or contamination due to dust. The closest surface water feature (Lee (Cork) Estuary Lower) runs along the length of Marina promenade. Although the site is extremely close in proximity of the River Lee (approximately 35m) (Figures 3.2 and 3.3), the scale of the works is small, and there are no anticipated in-stream works. No construction discharge will occur during the development since the works will be limited to the conservation and restoration (where applicable) of prominent structures within the park such as Barrington's Folly, the Boathouse, the Slipway. Any additions to the park, such as the playground and canopy tree walk, will not cause any additional discharge.

Therefore, the direct connectivity between the site and the nearest SAC (1.05km to Cork Harbour SPA), the distance to the downstream SAC (minimum of 5.2km direct to The Great Island Channel SAC), and the small-scale nature of the development, these effects are determined to be negligible.

Operational Phase:

No water drainage system is required for the site. The current drainage system as part of the project which is proposed is split into two sections. The western section of the site up to and including the Atlantic Pond (tidal lough) drains into the Lee Estuary. The drainage in the eastern section is a combination of both groundwater seepage and surface run-off into the Lee Estuary.

The magnitude of discharge is likely to be small and will not contribute to additional surface water discharge levels to rivers. The distance between the site and Cork Harbour SPA (1.05km) combined with the direct hydrological link with the development, it is considered that the surface water drainage from the proposed works may cause an impact on nearby European sites, however they are deemed to be negligible.

3.4.5 Excavation Requirements/ Erosion/Sedimentation

The proposed development does not require major excavation works. Some small-scale works will be completed. There is a potential for erosion of bare ground and/or sediment movement resulting from surface run-off during the construction phase. However, given the relatively small-scale and short-term nature of the works, even when considering the close proximity of the nearest downstream European Site, there will be no direct significant effects to the European Site anticipated as a result of erosion and/or sedimentation.

The impacts associated with the proposed development are not considered to be significant. Therefore, given the scale of the development and distance to European sites, the effects arising from these works will be negligible.

3.4.6 Transportation Requirements

There will be a minor temporary increase in construction traffic during the construction phase. However, these effects are considered to be negligible with regard to European sites due to the small-scale nature of the works, the distances observed, and the indirect pathways for effects.

3.4.7 Duration of Construction, Operation, Decommissioning

The proposed project duration is short term. The construction will result in an improved public space and park attractions which will be a permanent feature with no decommissioning phase. The duration of the construction will have no effects on European sites given the small-scale nature of the works, the distances to the sites, and indirect pathways identified.

3.4.8 Habitat Reduction

There are no supporting habitats identified within the site footprint for any Annex I or Annex II species. The nearest European site or qualifying habitat feature is located 1.05km from the

site. As such, there will be no reduction of habitat of European sites resulting from the proposed development.

3.4.9 Species Disturbance

Of the protected species and habitats identified, the nearest is Cork Harbour SPA located 1.05km from the proposed development. As such, disturbance from noise, vibrations, lighting, etc. are not a valid link. There are no pathways for disturbance effects identified due to the distance between the proposed development and the nearest European site.

3.4.10 Habitat or species fragmentation

Given the scale, timeline, and distance from the European sites, the proposal is considered to have no potential effects on any European site in this regard.

3.4.11 Changes in Key indicators of Conservation Value

The nearest European site is 1.05km away from the proposed site. There is a surface water feature located next to the site area (Lee (Cork) Estuary Lower transitional river) that flows from west to east, eventually flowing into Lough Mahon which shares borders with Cork Harbour SPA and Great Channel Island SAC. Given the scale and timeline of the development, even when combined with the short distance and direct pathways identified, effects arising from these works will be negligible.

3.4.12 Climate Change

Due to the nature and scale of the proposed work, the effects of the proposed development on climate and Ireland's obligations under the Kyoto Protocol are not anticipated to be significant.

Table 3.2: Screening assessment of the potential effects arising from the proposed works

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Characterisation of Potential Effects	Potential Significant Effects	Potential In-combination Effects
004030	Cork Harbour SPA	0.8 E	[A004] Little Grebe (<i>Tachybaptus ruficollis</i>) [A005] Great Crested Grebe (<i>Podiceps cristatus</i>) [A017] Cormorant (<i>Phalacrocorax carbo</i>) [A028] Grey Heron (<i>Ardea cinerea</i>) [A048] Shelduck (<i>Tadorna tadorna</i>) [A050] Wigeon (<i>Anas penelope</i>) [A052] Teal (<i>Anas crecca</i>) [A054] Pintail (<i>Anas acuta</i>) [A056] Shoveler (<i>Anas clypeata</i>) [A069] Red-breasted Merganser (<i>Mergus serrator</i>) [A130] Oystercatcher (<i>Haematopus ostralegus</i>) [A140] Golden Plover (<i>Pluvialis apricaria</i>) [A141] Grey Plover (<i>Pluvialis squatarola</i>) [A142] Lapwing (<i>Vanellus vanellus</i>) [A149] Dunlin (<i>Calidris alpina</i>) [A156] Black-tailed Godwit (<i>Limosa limosa</i>) [A157] Bar-tailed Godwit (<i>Limosa lapponica</i>) [A160] Curlew (<i>Numenius arquata</i>) [A162] Redshank (<i>Tringa totanus</i>) [A179] Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A182] Common Gull (<i>Larus canus</i>) [A183] Lesser Black-backed Gull (<i>Larus fuscus</i>) [A193] Common Tern (<i>Sterna hirundo</i>) [A999] Wetland and Waterbirds	Threats to the site include: D03.01 (port areas); E02 (Industrial or commercial areas); E01.03 (dispersed habitation); G01.02(walking, horseriding and non-motorised vehicles); E01 (Urbanised areas, human habitation); F02.03 (Leisure fishing); D01.02 (roads, motorways); F01 (Marine and Freshwater Aquaculture); G01.01 (nautical sports); G01.06 (skiing, off-piste); D03.02 (Shipping lanes); A08 (Fertilisation). There is a negligible risk of significant effect on the SPA. There is no spatial overlap however there is a direct hydrological link between the site and the protected area via the River Lee. Construction phase effects such as dust are known to persist over a short distance (less than 250 meters), all other effects from the sites are identified to be localised.	No	No
001058	Great Island Channel SAC	4.95 E	[1140] Mudflats and sandflats not covered by seawater at low tide [1330] Atlantic salt meadows (<i>Glaucoc-Puccinellietalia maritimae</i>)	Threats to the site include: F01 (Marine and Freshwater Aquaculture); D01.02 (roads, motorways); I01 (invasive non-native species); A04 (grazing); J02.01.02 (reclamation of land from sea, estuary or marsh); A08 (Fertilisation); E01 (Urbanised areas, human habitation); K02.03 (eutrophication (natural)).	No	No

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Characterisation of Potential Effects	Potential Significant Effects	Potential In-combination Effects
				There is a negligible risk of significant effect on the SAC. There is no spatial overlap however there is a direct hydrological link between the site and the protected area via the River Lee and Lough Mahon. Construction phase effects such as dust are known to persist over a short distance (less than 250 meters), all other effects from the sites are identified to be localised.		
002170	Blackwater River (Cork/Waterford) SAC	14.7 N	<p>[1130] Estuaries</p> <p>[1140] Tidal Mudflats and Sandflats</p> <p>[1220] Perennial Vegetation of Stony Banks</p> <p>[1310] Salicornia Mud</p> <p>[1330] Atlantic Salt Meadows</p> <p>[1410] Mediterranean Salt Meadows</p> <p>[3260] Floating River Vegetation</p> <p>[91A0] Old Oak Woodlands</p> <p>[91E0] Alluvial Forests*</p> <p>[1029] Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)</p> <p>[1092] White-clawed Crayfish (<i>Austropotamobius pallipes</i>)</p> <p>[1095] Sea Lamprey (<i>Petromyzon marinus</i>)</p> <p>[1096] Brook Lamprey (<i>Lampetra planeri</i>)</p> <p>[1099] River Lamprey (<i>Lampetra fluviatilis</i>)</p> <p>[1103] Twaite Shad (<i>Alosa fallax</i>)</p> <p>[1106] Atlantic Salmon (<i>Salmo salar</i>)</p> <p>[1355] Otter (<i>Lutra lutra</i>)</p> <p>[1421] Killarney Fern (<i>Trichomanes speciosum</i>)</p>	<p>Threats to the site include: J02.01 (Landfill, land reclamation and drying out, general); D01.04 (railway lines, TGV); I01 (invasive non-native species); B (Sylviculture, forestry); E03.01 (disposal of household / recreational facility waste); A04 (grazing); G02 (Sport and leisure structures); A08 (Fertilisation); C01.01 (Sand and gravel extraction); G01.01 (nautical sports); E02 (Industrial or commercial areas); E01 (Urbanised areas, human habitation); J02.01 (Landfill, land reclamation and drying out, general); K01.01 (Erosion); A03 (mowing / cutting of grassland); D01.02 (roads, motorways); F02.03 (Leisure fishing).</p> <p>There are no sources for effect to the terrestrial habitats of the SAC. There is no spatial overlap or direct hydrological link between the site and the protected area. Construction phase effects such as dust are known to persist over a short distance (less than 250 meters), all other effects from the sites are identified to be localised.</p>	No	No

4 SUMMARY & CONCLUSION

4.1 Summary

The Habitats Directive provides legal protection for habitats and species of European importance. This AA screening has been prepared for the proposed works on Marina Park Phase II in Cork City and is based on the best scientific knowledge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted.

The Lee (Cork) Estuary Lower is located approximately 35m from the site with the Atlantic Pond draining directly into the estuary at low tide. Site works are not anticipated to cause any discharge to the river and due to the small scale of the project, any discharge that may occur will have a negligible effect on water quality and downstream European sites.

There will be no:

- Reduction in habitat area
- disturbance to key species
- habitat or species fragmentation
- reduction in species density
- changes in key indicator of conservation value
- climate change

4.2 Conclusion

This stage 1 screening for AA of the proposed works on the Marina Park Phase II in Cork City involving the upgrades and improvements to the park for public recreation show that the implementation of the proposed project is not foreseen to have any likely significant effects on any European sites.

The nearest European site or qualifying habitat feature is located 1.05 kilometres from the proposed development site. The AA screening process has considered potential effects which may arise during the construction and operational phases as a result of the implementation of the project.

Through an assessment of the pathways for effects and an evaluation of the project characteristics, taking into account the processes involved and the distance of separation from European sites, it has been evaluated that there are no likely significant adverse effects on the qualifying interests, special conservation interest or the conservation objectives of any designated European site. The ecological integrity of the European sites is not foreseen to be significantly affected by the project.

Given the nature of the development, its scale, and the existing localised and temporary nature of the construction effects identified as potential sources, the proposed development will not lead to a significant in-combination effect with any other plans or projects.

It is concluded that the project is not foreseen to give rise to any significant adverse effects on any designated European sites, alone or in combination with other plans or projects. This evaluation is made in view of the conservation objectives of the habitats or species for which these sites have been designated. Consequently, a Stage Two screening is not required for the project.