AA SCREENING REPORT

Monahan Road Extension, Cork

Cork City Council

PROJECT NO. C941

JUNE 2021

OCSC
O'CONNOR | SUTTON | CRONIN
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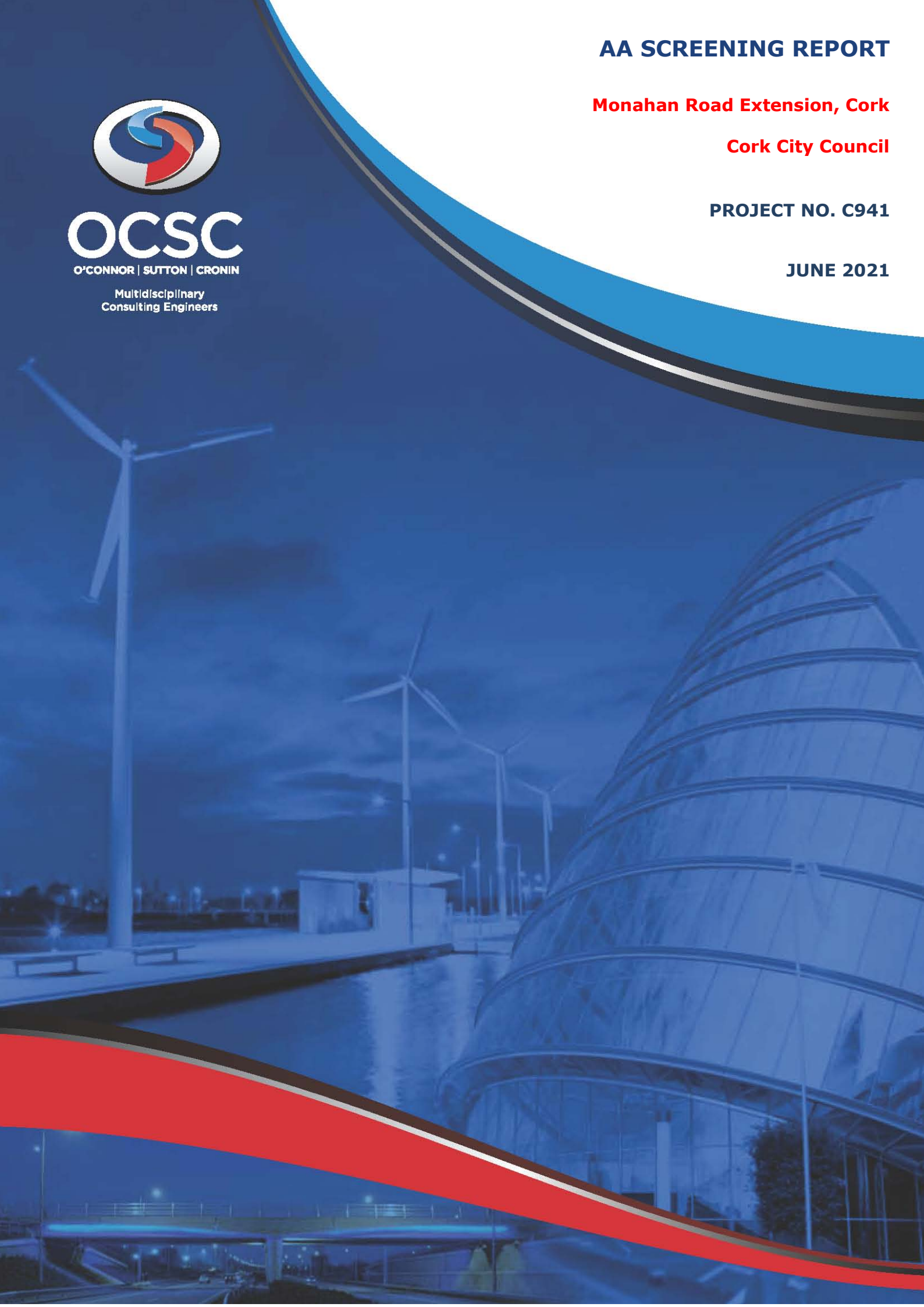

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APPROPRIATE ASSESSMENT

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NOTICE

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DOCUMENT CONTROL & HISTORY

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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 City Council. The site for assessment comprises portions of the Monahan Road, the Marquee Road and the pedestrian pathway to the northwest of the Pairc Uí Chaoimh in Cork, where is proposed a design for the completion of the Monahan Road Extension (MRE) project. The MRE comprises approximately 400m of new 4-lane two-way carriageway (2 eastbound and 2 westbound) with central reservation, verges, cycle tracks and footpaths. The Regulating Authority for the site is Cork City Council.

The report was completed by Luis Iemma BSc, MSc, Ph.D, Senior Ecologist, assisted by Kate Santos, BSc, Environmental Engineer. It was reviewed by Eleanor Burke BSc, MSc, DAS, MIEnvSc, 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 Conservatin (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 Replblic of Ireland by the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended) and the Planning Development Act 2000 (as amended).

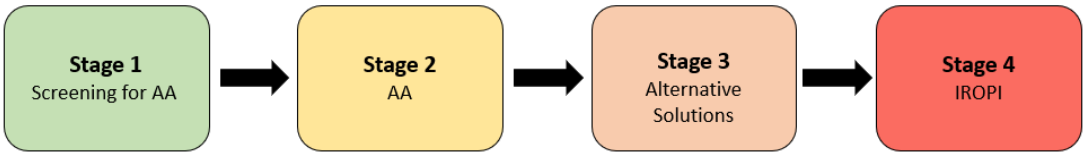
This AA screening is based on best scientific knowedge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted. This included a detailed review of the National Parks and Wildlife Service (NPWS) website, including mapping and available reports for relevant sites and in particular sensitve qualifying interests/ special conservation interests described and their conservation objectives. The EPA EnVision map viewer (EPA 2021) 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 (NPWS 2010):



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

The following paragraphs are taken from the NPWS (2010 revised) publication 'Appropriate Assessment of Plans and Projects in Ireland'. An important aspect of the process is that the outcome at each successive stage determines whether a further stage in the process is required.

Stage One: Screening for Appropriate Assessment

Screening is the process that addresses and records the reasoning and conclusions in relation to the first two tests of Article 6(3):

> i) whether a plan or project is directly connected to or necessary for the management of the site, and
>
> ii) whether a plan or project, alone or in combination with other plans and projects, is likely to have significant effects on a Natura 2000 site in view of its conservation objectives.

If the effects are deemed to be significant, potentially significant, or uncertain, or it the screening process becomes overly complicated, then the process must proceed to Stage 2 (AA). Screening should be undertaken without the inclusion of mitigation, unless potential impacts clearly can be avoided through the modification or redesign of the plan or project, in which case the screening process is repeated on the altered plan.

Stage Two: Appropriate Assessment

This stage considers whether the plan or project, alone or in combination with other projects or plans, will have adverse effects on the integrity of a Natura 2000 site, and includes any mitigation measures necessary to avoid, reduce or offset negative effects. The proponent of the plan or project will be required to submit a Natura Impact Statement, i.e. the report of a targeted professional scientific examination of the plan or project and the relevant Natura 2000 sites, to identify and characterise any possible implications for the site in view of the site's conservation objectives, taking account of in combination effects.

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 of 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 of of any relevance or significance.

- Source(s) – e.g. pollutant run-off from proposed works;
- Pathway(s) – e.g. groundwater connecting 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 fo the 'Habitats' directive 92/43/EEC*, European Commission, 2018.
- *Assessment of plans and projects significantly affecting Natura 200 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habiats Directive 92/43/EEC*, Euopean Commission Environment DG, 2002.
- *Managing Natura 2000 sites: the Provisions of Article 6 of the habitats Directive 92/43/EEC,* European Commission, 2000.

Using the above documents it has been possible to carry out a desktop AA Screening using 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 2021 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 proposed extension of Monahan Road, which is one of the objectives of the Cork City Development Plan 2015-2021. The MRE will be one of the key arterial routes in the South Docks; it is proposed to extend the existing Monahan Road in a north easterly direction to provide access to the Cork South Docklands from Tivoli via the proposed Eastern Gateway Bridge. The site layout is shown in Appendix A. The route corridor for the MRE extends from the existing junction of Monahan Road and Marquee Road in a north-easterly direction between the former Ford site and Marina Park.

2.2 Site Location

The site is located near the Marina to the northwest of Pairc Ui Chaoimh, Cork. The study area location is identified in Figure 2.1.

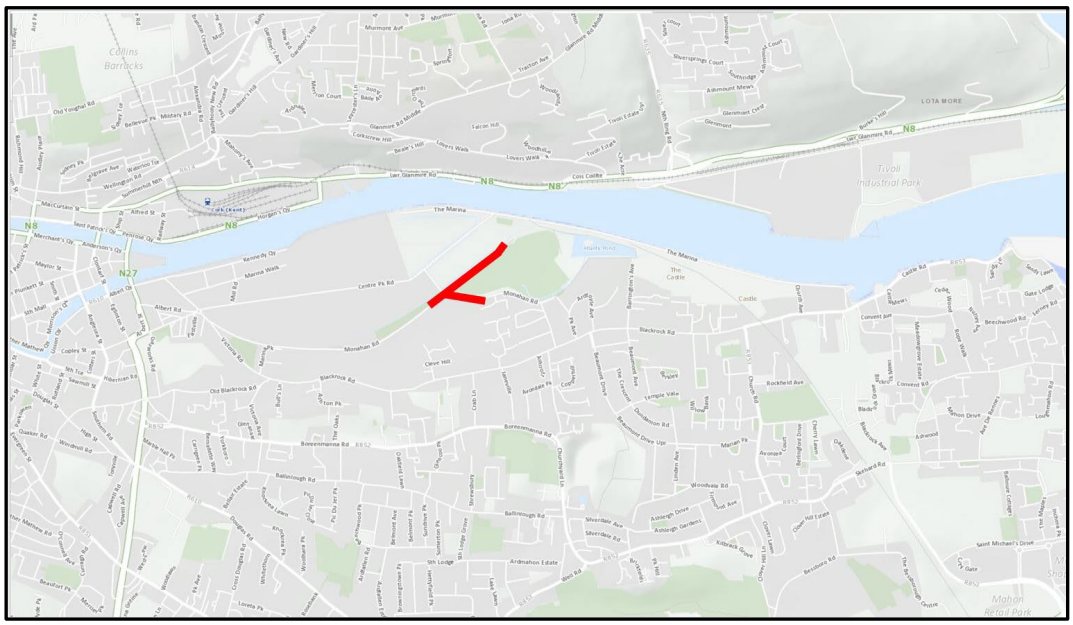


Figure 2.1: Approximate Site Location in red - Regional Location (Source: OSI, 2021).

2.3 Study area

The study area consists of a parcel of the Monahan Road, the Marquee Road and the pedestrian pathway northwest of Pairc Uí Chaoimh, Cork, refer to Figure 2.2 or an area photograph.

Figure 2.2: Study Area (Source: EPA Maps, 2021).

2.4 Surrounding Land Use

The immediate surrounding area is industrial, residential, educational, recreational/ community use, and commercial/retail businesses land uses. To the north, the study area is bounded by the Old Ford Distribution site that has accommodated live concerts at the Marquee, the J.W. Green & Co Cork LTD and the River Lee. Suttons LTD and residential properties to the south. New Marina Park, Páirc Uí Chaoimh GAA Stadium including its Hurling Venue to the East and Doyle Bros Construction, Space car, Suttons Coals depot (Bord na Mona), Cleve Business Park and the Irish Main Port Holdings to the West. 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 Old Ford Distribution site (concert venue for Live at the Marquee), J.W. Green & Co Cork LTD. Centre park Road, The River Lee.
South	Suttons LTD for energy, Residential properties
East	New Marina Park, Páirc Uí Chaoimh GAA Stadium including its Hurling Venue
West	Doyle Bros Construction, Space car, Suttons Coals depot (Bord na Mona). Cleve Business Park, The Greenhouse, Irish Main port Holdings

2.5 Hydrology

There are no surface water features mapped within the site area. An open watercourse that ran the full length of the MRE was diverted through Marina Park as part of the Marina Park

Phase 1 works (completion imminent). The watercourse will eventually pass in culvert beneath the MRE close to the junction with Marquee Road and Monahan Road (east). The watercourse (in culvert) presents a suitable discharge point for surface water runoff from the MRE. As the MRE will result in substantial changes in ground level along the length of the road, new drainage infrastructure will be required to service the MRE.

This watercourse flows into the Atlantic Pond which discharges to the River Lee (130m from the site). The Lee flows from west to the east flowing into Cork Bay and is a transitional water body. Based on the most recent water quality information 2013-2018 the River Lee has a transitional water body status of Moderate (Lee – Estuary Lower IE_SW_060_0900). The EPA spatial dataset shows that the WFD River Waterbody Risk associated with the river is 'At Risk' (EPA 2021).

Table 2.2 - WFD Summary Information – River Lee

Waterbody Code	IE_SW_060_0900
Waterbody Name	LEE (CORK) Estuary Lower
Waterbody Type	River
Iteration	SW 2013-2018
Status	Moderate
Risk	At Risk

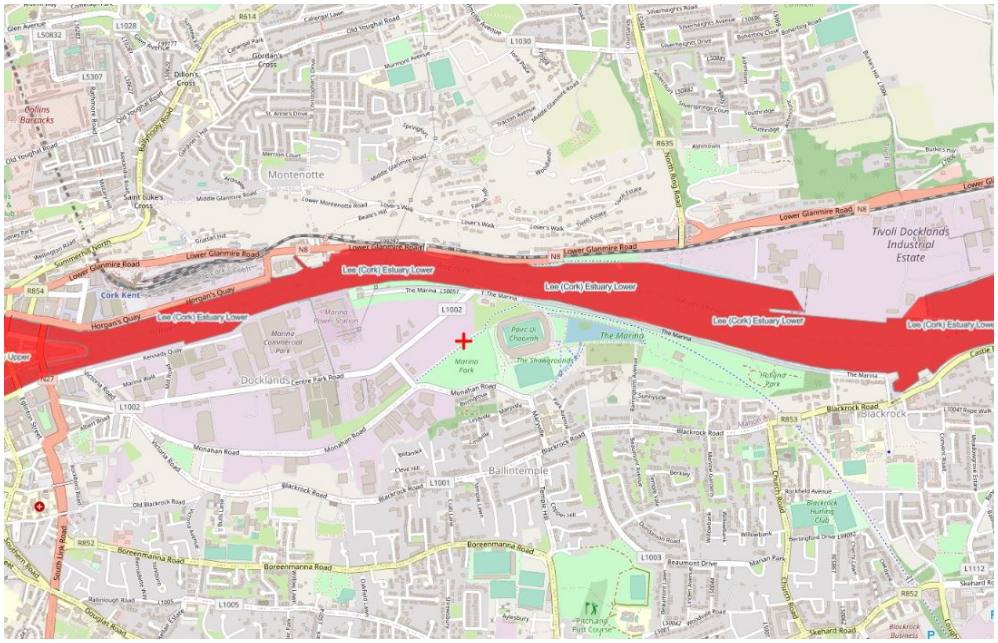


Figure 2.3: River Waterbodies Risk (approximate site location indicated by the red cross) (Source: EPA Maps, 2021).

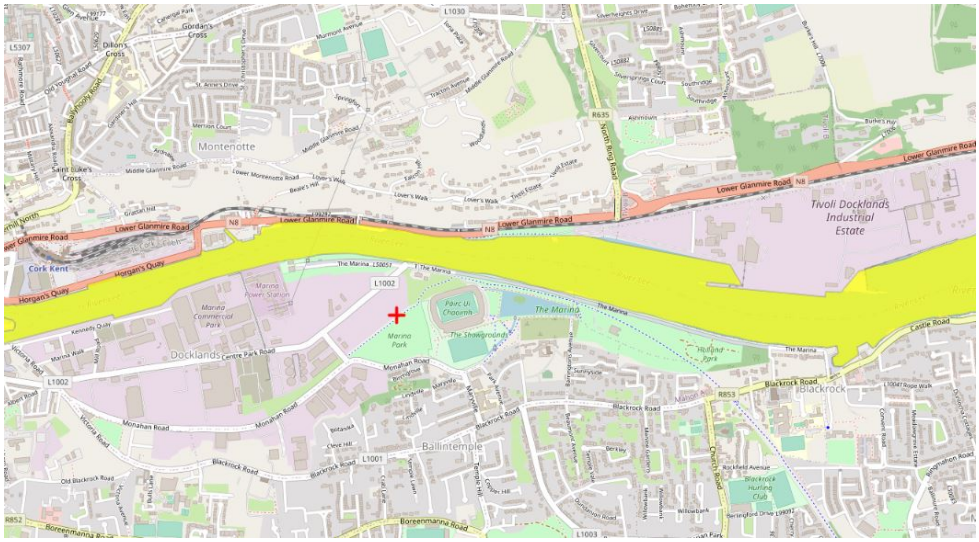


Figure 2.4: River Waterbodies Risk (approximate site location indicated by the red cross) (Source: EPA Maps, 2021).

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 the following stages. A series of questions are asked during the Screening Stage of the AA process in order 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 [004030]. Version 1.0 – (November 2014).
    - Conservation Objectives for Blackwater River (Cork/Waterford) SAC [002170]. Version 1.0 – Woodland habitats (July 2012).
    - Conservation Objectives for Blackwater River (Cork/Waterford) SAC [002170]. Version 1.0 – Marine habitats (July 2012).
    - Conservation Objectives for Blackwater River (Cork/Waterford) SAC [002170]. Version 1.0 – Coastal habitats (July 2012).
    - Conservation Objectives for Great Island Channel SAC [001058]. Version 1.0 - Coastal habitats (May 2014).
    - Conservation Objectives for Great Island Channel SAC [001058]. Version 1.0 - Marine habitats (May 2014).

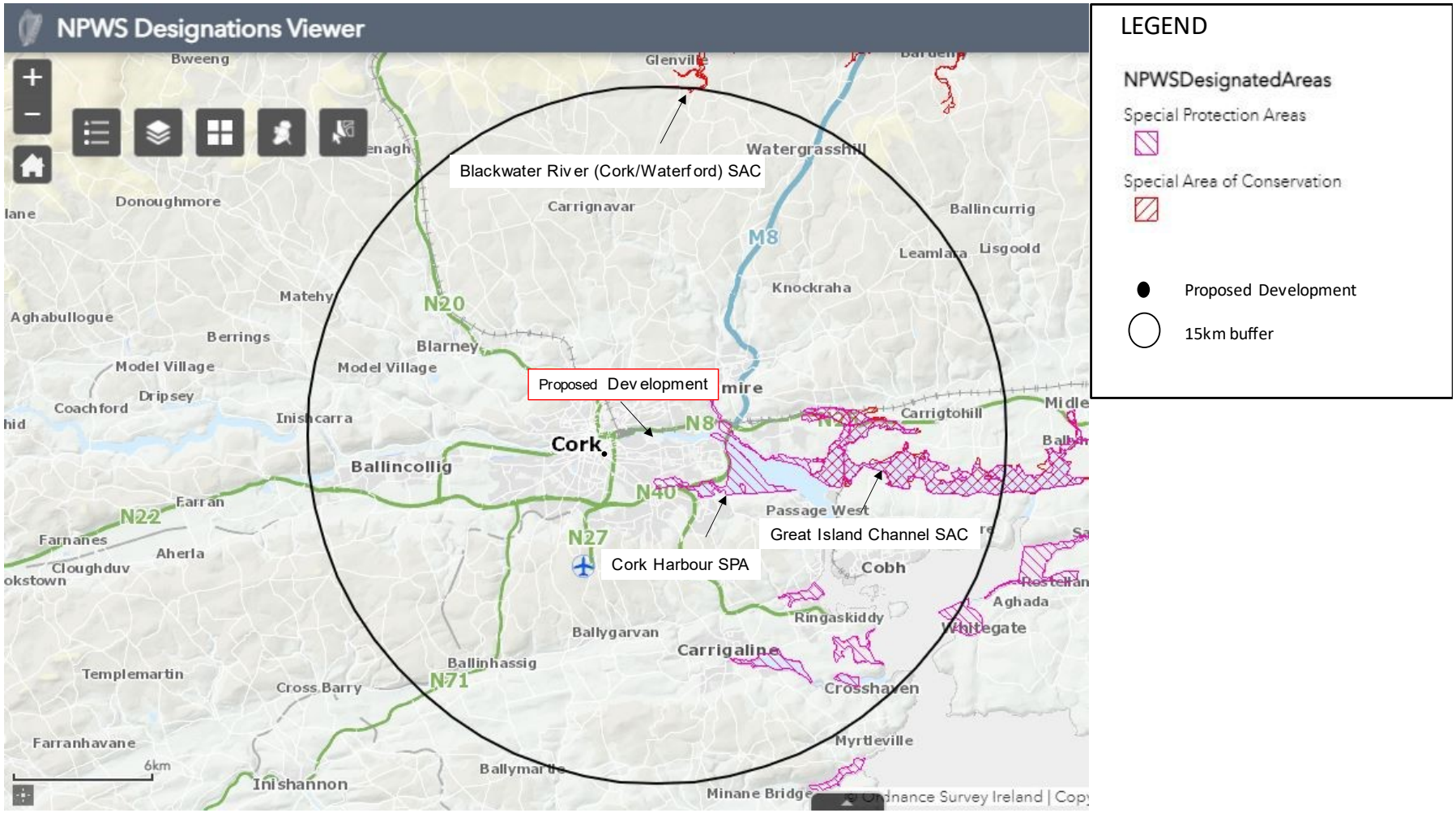


Figure 3.1: Designated Sites within 15km radius (Source: NPWS Maps, 2021).

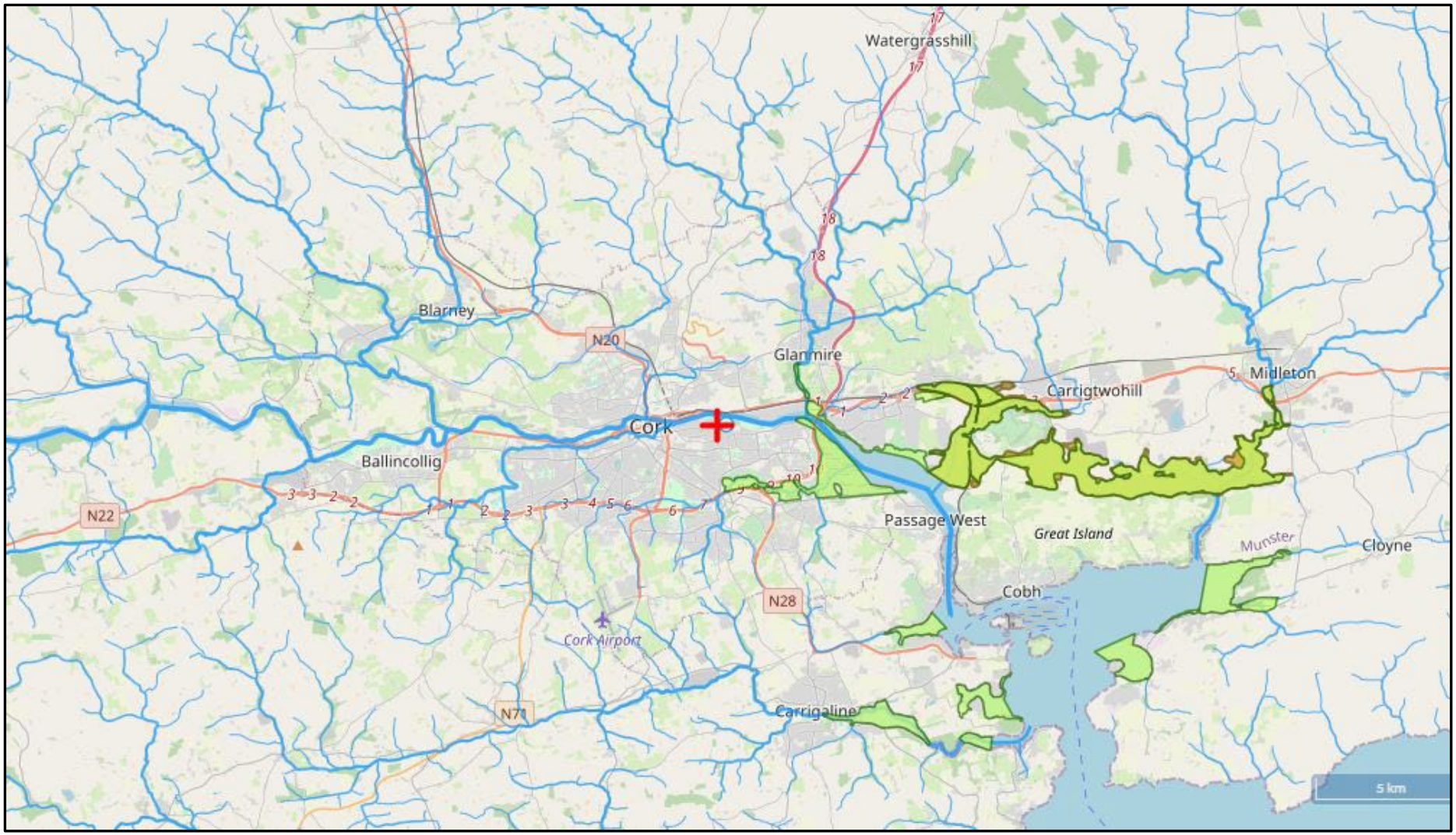


Figure 3.2: European Sites and EPA Rivers (approximate site location indicated by the red cross). (Source: EPA Maps, 2021).

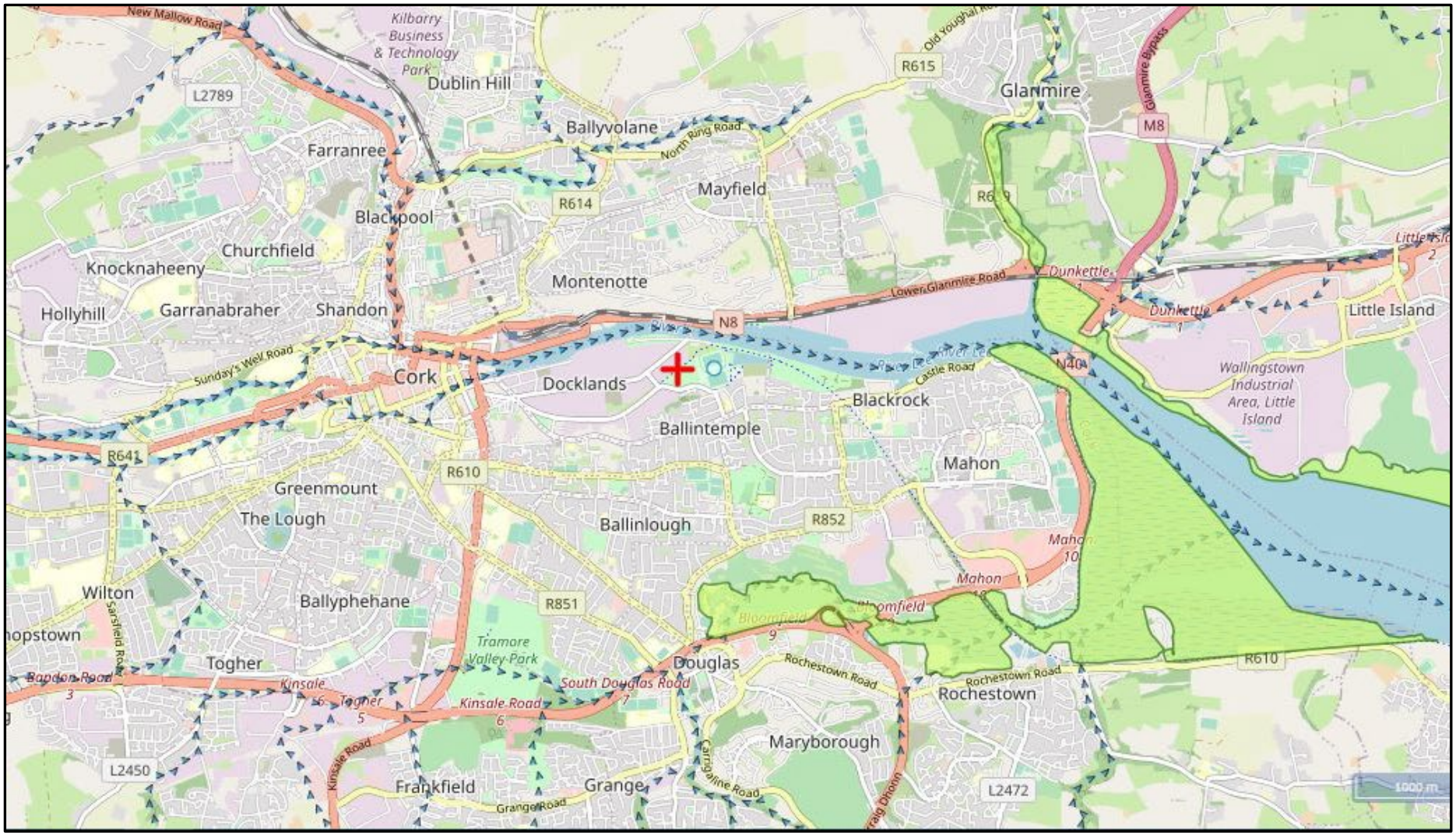


Figure 3.3: Nearest European Sites, EPA Rivers relative to study area (approximate site location indicated by the red cross). (Source: EPA Maps, 2021).

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	1.6 SE	[A004] Little Grebe Tachybaptus ruficollis [A005] Great Crested Grebe Podiceps cristatus [A017] Cormorant Phalacrocorax carbo [A028] Grey Heron Ardea cinerea [A048] Shelduck Tadorna tadorna [A050] Wigeon Anas penelope [A052] Teal Anas crecca [A054] Pintail Anas acuta [A056] Shoveler Anas clypeata [A069] Red-breasted Merganser Mergus serrator [A130] Oystercatcher Haematopus ostralegus [A140] Golden Plover Pluvialis apricaria [A141] Grey Plover Pluvialis squatarola [A142] Lapwing Vanellus vanellus [A149] Dunlin Calidris alpina alpina [A156] Black-tailed Godwit Limosa limosa [A157] Bar-tailed Godwit Limosa lapponica [A160] Curlew Numenius arquata [A162] Redshank Tringa totanus [A179] Black-headed Gull Chroicocephalus ridibundus [A182] Common Gull Larus canus [A183] Lesser Black-backed Gull Larus fuscus [A193] Common Tern Sterna hirundo [A999] Wetlands	Cork Harbour is a large, sheltered bay system, with several river estuaries - principally those of the Rivers Lee, Douglas, Owenboy and Owenacurra. The site comprises the main intertidal areas of Cork Harbour, including all of the North Channel, the Douglas Estuary, inner Lough Mahon, Monkstown Creek, Lough Beg, the Owenboy Estuary, Whitegate Bay and the Rostellan inlet. Owing to the sheltered conditions, the intertidal flats are often muddy in character. Salt marshes are scattered through the site and these provide high tide roosts for the birds. Otherwise, birds roost on stony shorelines and in some areas, fields adjacent to the shore. Some shallow bay water is included in the site. Cork Harbour is adjacent to a major urban centre and a major industrial centre. 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, Redbreasted 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. Cork Harbour is an internationally important wetland site, regularly supporting in excess of 20,000 wintering waterfowl. Of particular note is that the site supports internationally important populations of Black-tailed Godwit (1,896) and Redshank (2,149) - all figures given are five year mean peaks for the period 1995/96 to 1999/2000. Nationally important populations of the following 19 species occur: Little Grebe (57), Great Crested Grebe (253), Cormorant (521), Grey Heron (80), Shelduck (2,009), Wigeon (1,791), Teal (1,065), Mallard (513), Pintail (57), Shoveler (103), Red-breasted Merganser (121),

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
				Oystercatcher (1,809), Golden Plover (3,342), Grey Plover (95), Lapwing (7,569), Dunlin (9,621), Bartailed Godwit (233), Curlew (2,237) and Greenshank (46). The Shelduck population is the largest in the country (over 10% of national total). Other species using the site include Mute Swan (38), Whooper Swan (5), Pochard (72), Gadwall (6), Tufted Duck (64), Goldeneye (21), Coot (53), Ringed Plover (73), Knot (26) and Turnstone (113). Cork Harbour is an important site for gulls in winter and autumn, especially Black-headed Gull (3,640), Common Gull (1,562) and Lesser Black-backed Gull (783), all of which occur in numbers of national importance. Little Egret and Mediterranean Gull, two species which have recently colonised Ireland, also occur at this site. 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, 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	7 E	[1140] Tidal Mudflats and Sandflats [1330] Atlantic Salt Meadows	This site comprises the north-eastern part of Cork Harbour. It includes all of the Great Island Channel, the intertidal areas between Fota Island and Little Island, and also the estuary of the Dungourney and Owennacurra Rivers as far as Midleton.

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
				The North Channel is on average 1 km wide but extends for about 9km from east to west. The area is well sheltered and the intertidal sediments are predominantly fine muds. In addition to the estuarine habitats, the site includes some wet grassland areas which are used by roosting birds, as well as some broad-leaved woodland at Fota Island. Compared to the rest of Cork Harbour, the Great Island Channel is relatively undisturbed, with aquaculture the main activity. The site is of ecological importance for its examples of intertidal mud and sand flats and Atlantic salt meadows of the estuarine type. Both habitats are fairly extensive in area and of moderate to good quality. Site has high ornithological importance, supporting regularly c.50% of the wintering waterfowl of Cork Harbour. Significant proportions of the internationally important populations of Limosa limosa and Tringa totanus which winter in Cork Harbour utilise the site and it supports nationally important populations of a further 12 species, including Pluvialis apricaria and Limosa lapponica, both listed on Annex I of the EU Birds Directive.
002170	Blackwater River (Cork/Waterford) SAC	14.8 N	[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 (Margaritifera margaritifera) [1092] White-clawed Crayfish (Austropotamobius pallipes) [1095] Sea Lamprey (Petromyzon marinus) [1096] Brook Lamprey (Lampetra planeri) [1099] River Lamprey (Lampetra fluviatilis) [1103] Twaite Shad (Alosa fallax) [1106] Atlantic Salmon (Salmo salar) [1355] Otter (Lutra lutra) [1421] Killarney Fern (Trichomanes speciosum)	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, Owentaraglin 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. The main threats to the site and current damaging activities include high inputs of nutrients into the river system from

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
				agricultural run-off and several sewage plants, dredging of the upper reaches of the Awbeg, over-grazing within the woodland areas, and invasion by non-native species, for example Rhododendron and Cherry Laurel. Overall, the River Blackwater is of considerable conservation significance for the occurrence of good examples of habitats and populations of plant and animal species that are listed on Annexes I and II of the E.U. Habitats Directive respectively. Furthermore it is of high conservation value for the populations of bird species that use it. Two Special Protection Areas, designated under the E.U. Birds Directive, are also located within the site - Blackwater Callows and Blackwater Estuary. Additionally, the importance of the site is enhanced by the presence of a suite of uncommon plant species.

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 extension of the Monahan Road in Cork is neither necessary for, nor directly connected with the management of a European Site. As such the proposed development cannot be excluded from AA. It is considered that the operational phase elements of the proposed project will not introduce effects, over and above those already existing as the site is located in a residential/commercial area near to an existing main road.

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

The construction and operational phases of the proposed road extension has 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. 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. 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. The probability of the 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 a minor land take with the realignment of Monahan road and Marquee road to provide space for the extension of the road. Since the nearest European Sites, or qualifying habitat features, is at a distance of 1.6km from the site (i.e. Cork Harbour SPA); there will be no effects posed to European sites in this respect.

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 is located approximately 130m north of the site (River Lee) which eventually flows into the Cork Harbour SPA approximately 1.6km downstream. No construction discharge will occur during the development. Therefore, given the lack of connectivity between the site and the rivers, the distance (minimum of 1.6km direct to the Cork Harbour SPA) between the closest European site and the proposed road, combined with the small-scale nature of the development, these effects are determined to be negligible.

Operational Phase:

It is understood that the post construction surface water drainage system has not yet been designed; however the following elements will be incorporated and are documented in the standalone OCSC Surface Water Management Plan (C941-OCSC-XX-XX-RP-C-0010).

Attenuation: In accordance with the requirements of the Cork South Docks Drainage Strategy report (CSDDS) runoff will be attenuated to 68l/s/ha. Attenuated runoff will be stored in bio-retention areas, including the sub-surface components of bio-retention areas. As the permissible runoff rate is 68l/s/ha, the volume of storage required will be relatively low.

Verge Bio-Retention Areas: It is proposed to utilise the verge along the length of the MRE to collect, treat and attenuate the surface water runoff at source. The verge will be designed to act as a series of individual bio-retention areas, allowing for the gradient and change in level of the MRE.

Given that surface water drainage will be designed in accordance with all best practice requirements (including an oil water interceptor), the fact that the magnitude of discharge is likely to be small and will not contribute to additional surface water discharge to rivers, that the discharge will not directly enter to protected area but rather indirectly via the Atlantic Pond, then the River Lee, and given the distance (minimum of 1.6km direct to the Cork Harbour SPA) between the closest European site and the development it is considered that the surface water drainage from the MRE will not have a significant impact on nearby European sites.

3.4.5 Excavation Requirements/ Erosion/Sedimentation

The proposed development does not require major excavation works. Some small-scale works will be completed.

A portion of Cork Harbour SPA is located approximately 1.6km to the Southeast of the proposed site. The land between the site and Cork Harbour SPA is mixed use with residential, recreational, educational and commercial/retail businesses. Its topography is undulating in nature and sees several hills and troughs and a low-lying plain surrounding the site. 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, coupled with the distance of the development works from the European Site, even though the European Site is located downstream of the study area, there is 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 the effects arising from these works will be negligible.

3.4.6 Transportation Requirements

There will be a minor temporary increase in 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 a road extension 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 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, and the nearest European sites or qualifying habitat features is located 1.6km 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 Cork Harbour SPA is located 1.6km from the proposed development and 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 1.6km away from the proposed road extension. There are no surface water features within the site area. The nearest surface water feature is the River Lee that flows east approximately 130 meters northeast of the site. Therefore, given the scale and timeline of the development, combined with the distance and indirect 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, its 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 Effeccts	Potential Significant Effects	Potential In-combination Effects
004030	Cork Harbour SPA	1.6 SE	[A004] Little Grebe Tachybaptus ruficollis [A005] Great Crested Grebe Podiceps cristatus [A017] Cormorant Phalacrocorax carbo [A028] Grey Heron Ardea cinerea [A048] Shelduck Tadorna tadorna [A050] Wigeon Anas penelope [A052] Teal Anas crecca [A054] Pintail Anas acuta [A056] Shoveler Anas clypeata [A069] Red-breasted Merganser Mergus serrator [A130] Oystercatcher Haematopus ostralegus [A140] Golden Plover Pluvialis apricaria [A141] Grey Plover Pluvialis squatarola [A142] Lapwing Vanellus vanellus [A149] Dunlin Calidris alpina alpina [A156] Black-tailed Godwit Limosa limosa [A157] Bar-tailed Godwit Limosa lapponica [A160] Curlew Numenius arquata [A162] Redshank Tringa totanus [A179] Black-headed Gull Chroicocephalus ridibundus [A182] Common Gull Larus canus [A183] Lesser Black-backed Gull Larus fuscus [A193] Common Tern Sterna hirundo [A999] Wetlands	Threats to the site include: D03.01(Port areas); D01.02 (Roads, Motorways); F01 (Marine and Freshwater Aquaculture); D03.02 (Shipping lanes); A08 (Fertilization); G01.01 (Nautical sports); G01.02 (Walking, Horseriding and Non-motorised vehicles); E01.03 (Dispersed habitation); E01(Urbanized areas, human habitation); F02.03 (Leisure fishing); G01.06 (Skiing, off-piste); and E02 (Industrial or Commercial areas). There are no sources for effect to the terrestrial habitats of the SPA. There is no hydrological link given the sites location downstream of 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.	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 Effeccts	Potential Significant Effects	Potential In-combination Effects
001058	Great Island Channel SAC	7 E	[1140] Tidal Mudflats and Sandflats [1330] Atlantic Salt Meadows	Threats to the site include: E01 (Urbanized areas, human habitation);I01 (Invasive non-native species); F01 (Marine and Freshwater Aquaculture); J01.02 (Supression of natural fires); A04 (Grazing); A08 (Fertilisation); K02.03 (Eutrophication - natural); D01.02 (Roads, motorways). There are no sources for effect to the terrestrial habitats of the SPA. There is no hydrological link given the sites location downstream of 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.	No	No
002170	Blackwater River (Cork/Waterford) SAC	14.8 N	[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 (Margaritifera margaritifera) [1092] White-clawed Crayfish (Austropotamobius pallipes) [1095] Sea Lamprey (Petromyzon marinus)	Threats to the site include: B (Sylviculture, forestry); J02.01 (Landfill, land reclamation and drying out, general); D01.04 (railway lines, TGV); E03.01 (disposal of household / recreational facility waste); I01 (invasive non-native species); A04 (grazing); G01.01 (nautical sports); K01.01 (Erosion); D01.02 (roads, motorways); E02 (Industrial or commercial areas); C01.01 (Sand and gravel extraction); E01 (Urbanized areas, human habitation); A08 (Fertilization); G02 (Sport and leisure structures); A03 (mowing / cutting of grassland) and F02.03 (Leisure fishing). There is no direct hydrological link to the SAC located at 14.8km upstream. Construction phase effects such as dust are known to persist over a short distance (less than 250m[1]), all other effects from the sites are identified to be localised.	No	No

[1] Tian, G., Li, G., Yan, B.L., Huang, Y.H. and Qin, J.P., 2008. Spatial dispersion laws of fugitive dust from construction sites. Huan jing ke xue= Huanjing kexue, 29(1), pp.259-262.

Site Code	Site Name	Distance (km)	Sensitive Receptors (Qualifying Interest & Special Conservation Interests) [including the relevant code for the qualifying feature]	Characterisation of Potential Effeccts	Potential Significant Effects	Potential In-combination Effects
			[1096] Brook Lamprey (Lampetra planeri) [1099] River Lamprey (Lampetra fluviatilis) [1103] Twaite Shad (Alosa fallax) [1106] Atlantic Salmon (Salmo salar) [1355] Otter (Lutra lutra) [1421] Killarney Fern (Trichomanes speciosum)	The projects identified in the surrounding area are also small scale and were subject to their own AA processes (see below for details). Therefore, these effects are determined to be negligible.		

4 SUMMARY & CONCLUSION

4.1 Summary

The Habitats Directive provides legal protection for habitats and species of European importance. This AA screening is based on best scientific knowedge and has utilised ecological and hydrological expertise. In addition, a detailed online review of published scientific literature and 'grey' literature was conducted.

This Appropriate Assessment (AA) Screening report is prepared for the proposed extension of Monahan Road, which is one of the objectives of the Cork City Development Plan 2015-2021. The MRE will be one of the key arterial routes in the South Docks. The study area consists of a parcel of the Monahan Road, the Marquee Road and the pedestrian pathway northwest of Pairc Uí Chaoimh, Cork.

There are no surface water features mapped within the site area. An open watercourse that ran the full length of the MRE was diverted through Marina Park as part of the Marina Park Phase 1 works (completion imminent). The watercourse will eventually pass in culvert beneath the MRE close to the junction with Marquee Road and Monahan Road (east). This watercourse flows into the Atlantic Pond which discharges to the River Lee (130m from the site).

The nearest downstream protected area is the Cork Harbour SPA which is located 1.6km southeast of the study area. There is an indirect link from the MRE via the Atlantic Pond and River Lee to the protected area. The discharge from the MRE will be attenuated along with verge bio-retention areas and an interceptor and therefore, given the scale of the development and distance the effects arising from these works will be negligible.

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 extension of the Monahan Road in Cork, Co. Cork shows that implementation of the proposed project is not foreseen to have any likely significant effects on any European site.

The nearest European sites or qualifying habitat features is located 1.6 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 account of 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, 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 is not required for the project.