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## **PROVISION OF INFORMATION FOR APPROPRIATE ASSESSMENT SCREENING FOR A PROPOSED PART 8 DEVELOPMENT CONSISTING OF THE DEVELOPMENT OF A NEW CYCLE SCHEME IN LIMERICK CITY**

IN LINE WITH THE REQUIREMENTS OF ARTICLE 6(3) OF THE  
EU HABITATS DIRECTIVE



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# **1 INTRODUCTION**

## **1.1 BACKGROUND**

Article 6 of the EU Habitat's Directive (Council Directive 92/43/EEC) requires that all plans and projects be screened for potential impacts upon Special Areas of Conservation (SACs) or Special Protection Areas (SPAs). The aim of this screening process is to establish whether or not a full Appropriate Assessment of the proposed plan or project is necessary

A comprehensive assessment of the potential significant effects on designated European sites of the proposed development of a new cycle route from St Nessans Road to Bishop's Quay via the South Circular Road and Henry St in Limerick City was carried out in June 2021 by Noreen McLoughlin, MSc, MCIEEM of Whitehill Environmental.

The location of the proposed development is within 15km of sites designated under European Law. As such and in accordance with Article 6(3) of the EU Habitat's Directive (Council Directive 92/43/EEC) regarding Appropriate Assessment, this screening exercise for Appropriate Assessment was carried out in order to identify whether any significant effects on designated sites are likely, when considered on their own or in combination with other plans and projects. This exercise will also determine the appropriateness of the proposed project, in the context of the conservation status of the designated sites.

This report contains information required by the competent authority (in this instance Limerick City and County Council) to undertake a screening for Appropriate Assessment. It is the responsibility of the competent authority to make a decision as to whether or not the proposed development is likely to have significant effects on European Sites, either individually or in combination with other plans or projects. In accordance with the Legislation and National Guidance, the competent authority should issue an AA Screening Determination, which should set out their decision regarding AA, including the main reasons and considerations on which the determination is based.

## **1.2 REGULATORY CONTEXT**

The Birds Directive (Council Directive 2009/147/EC) recognises that certain species of birds should be subject to special conservation measures concerning their habitats. The Directive requires that Member States take measures to classify the most suitable areas as Special Protection Areas (SPAs) for the conservation of bird species listed in Annex 1 of the Directive. SPAs are selected for bird species (listed in Annex I of the Birds Directive), that are regularly

occurring populations of migratory bird species and the SPA areas are of international importance for these migratory birds.

The EU Habitats Directive (92/43/EEC) requires that Member States designate and ensure that particular protection is given to sites (Special Areas of Conservation) which are made up of or support particular habitats and species listed in annexes to this Directive.

Articles 6(3) and 6(4) of this Directive also call for the undertaking of an Appropriate Assessment for plans and projects not directly connected with or necessary to the management of, but which are likely to have a significant effect on any European designated sites (i.e. SACs and SPAs).

The Water Framework Directive (WFD) (2000/60/EC), which came into force in December 2000, establishes a framework for community action in the field of water policy. The WFD was transposed into Irish law by the European Communities (Water Policy) Regulations 2003 (S.I. 722 of 2003). The WFD rationalises and updates existing legislation and provides for water management on the basis of River Basin Districts (RBDs). RBDs are essentially administrative areas for coordinated water management and are comprised of multiple river basins (or catchments), with cross-border basins (i.e. those covering the territory of more than one Member State) assigned to an international RBD. The aim of the WFD is to ensure that waters achieve at least good status by 2027 and that status does not deteriorate in any waters.

### **Appropriate Assessment and the Habitats Directive**

Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora – the ‘Habitats Directive’ - provides legal protection for habitats and species of European importance. Article 2 of the Directive requires the maintenance or restoration of habitats and species of European Community interest, at a favourable conservation status. Articles 3 - 9 provide the legislative means to protect habitats and species of Community interest through the establishment and conservation of an EU-wide network of sites known as *Natura 2000*. Natura 2000 sites are Special Areas of Conservation (SACs) designated under the Habitats Directive and Special Protection Areas (SPAs) designated under the Conservation of Wild Birds Directive (79/409/EEC).

Articles 6(3) and 6(4) of the Habitats Directive sets out the decision-making tests for plans or projects affecting Natura 2000 sites. Article 6(3) establishes the requirement for Appropriate Assessment:

"Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site's conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public."

Article 6(4) deals with the steps that should be taken when it is determined, as a result of appropriate assessment, that a plan/project will adversely affect a European site. Issues dealing with alternative solutions, imperative reasons of overriding public interest and compensatory measures need to be addressed in this case.

Article 6(4) states:

"If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member States shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall inform the Commission of the compensatory measures adopted.

Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest."

#### *The Appropriate Assessment Process*

The aim of Appropriate Assessment is to assess the implications of a proposal in respect of a designated site's conservation objectives.

The 'Appropriate Assessment' itself is an assessment which must be carried out by the competent authority which confirms whether the plan or project in combination with other plans and projects will have an adverse impact on the integrity of a European site.

Screening for Appropriate Assessment shall be carried out by the competent authority as set out in Section 177U(1) and (2) of the Planning and Development Act 2000 (as amended) as follows:

'(1) A screening for appropriate assessment of a draft Land use plan or application for consent for proposed development shall be carried out by the competent authority to assess, in view of best scientific knowledge, if that Land use plan or proposed development, individually or in combination with another plan or project is likely to have a significant effect on the European site.

(2) A competent authority shall carry out a screening for appropriate assessment under subsection (1) before—

(a) a Land use plan is made including, where appropriate, before a decision on appeal in relation to a draft strategic development zone is made, or

(b) consent for a proposed development is given.'

The competent authority shall determine that an Appropriate Assessment is not required if it can be excluded, that the proposed development, individually or in combination with other plans or project will have a significant effect on a European site.

Where the competent authority cannot exclude the potential for a significant effect on a European site, an Appropriate Assessment shall be deemed required.

Where an Appropriate Assessment is required, the conclusions of the Appropriate Assessment Report (Natura Impact Statement (NIS)) should enable the competent authority to ascertain whether the plan or proposed development would adversely affect the integrity of the European site. If adverse impacts on the integrity of a European site cannot be avoided, then mitigation measures should be applied during the appropriate assessment process to the point where no adverse impacts on the site remain. Under the terms of the Habitats Directive consent can only be granted for a project if, as a result of the appropriate assessment either (a) it is concluded that the integrity of any European sites will not be adversely affected, or (b) after mitigation, where adverse impacts cannot be excluded, there is shown to be an absence of alternative solutions, and there exists imperative reasons of overriding public interest for the project should go ahead.

Section 177(V) of the Planning and Development Act 2000 (as amended) outlines that the competent authority shall carry out the Appropriate Assessment, taking into account the

Natura Impact Statement (amongst any other additional or supplemental information). A determination shall then be made by the competent authority in line with the requirements of Article 6(3) of the Habitats Directive as to whether the plan or proposed development would adversely affect the integrity of a European site, prior to consent being given.

## 2 METHODOLOGY

### 2.1 APPROPRIATE ASSESSMENT

This Statement of Screening for Appropriate Assessment (Stage 1) has been prepared with reference to the following:

- European Commission (2018). Managing Natura 2000 Sites: The Provisions of Article 6 of the 'Habitats' Directive 92/43/EEC.
- European Commission (2021). 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 (2006). Nature and Biodiversity Cases: Ruling of the European Court of Justice.
- European Commission (2007). Clarification of the Concepts of: Alternative Solution, Imperative Reasons of Overriding Public Interest, Compensatory Measures, Overall Coherence, Opinion of the Commission.
- Department of Environment, Heritage and Local Government (2009). Appropriate Assessment of Plans and Projects in Ireland: Guidance for Planning Authorities.

The EC Guidance sets out a number of principles as to how to approach decision making during the process. The primary one is 'the precautionary principle' which requires that the conservation objectives of Natura 2000 should prevail where there is uncertainty.

When considering the precautionary principle, the emphasis for assessment should be on objectively demonstrating with supporting evidence that:

- There will be no significant effects on a Natura 2000 site;
- There will be no adverse effects on the integrity of a Natura 2000 site;
- There is an absence of alternatives to the project or plan that is likely to have an adverse effect to the integrity of a Natura 2000 site; and
- There are compensation measures that maintain or enhance the overall coherence of Natura 2000.

This translates into a four stage process to assess the impacts, on a designated site or species, of a policy or proposal.

The EC Guidance states that "each stage determines whether a further stage in the process is required". Consequently, the Council may not need to proceed through all four stages in undertaking the Appropriate Assessment.



The four-stage process is:

**Stage 1: Screening** – The process which identifies the likely impacts upon a Natura 2000 site of a project or plan, either alone or in combination with other projects or plans, and considers whether or not these impacts are likely to be significant;

**Stage 2: Appropriate Assessment** – The consideration of the impact on the integrity of the Natura 2000 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;

**Stage 3: Assessment of Alternative Solutions** – The process which examines alternative ways of achieving objectives of the project or plan that avoid adverse impacts on the integrity of the Natura 2000 site;

**Stage 4: Assessment where no alternative solutions exist and where adverse impacts remain** – An assessment of the 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.

In complying with the obligations set out in Articles 6(3) and following the guidelines described above, this screening statement has been structured as a stage by stage approach as follows:

- Description of the proposed project;
- Identification of the Natura 2000 sites close to the proposed development;
- Identification and description of any individual and cumulative impacts on the Natura 2000 sites likely to result from the project;
- Assessment of the significance of the impacts identified above on site integrity. Exclusion of sites where it can be objectively concluded that there will be no significant effects;
- Description of proven mitigation measures.

## **2.2 STATEMENT OF COMPETENCY**

This AA Screening report was carried out by Noreen McLoughlin, BA, MSc, MCIEEM. Noreen has an honours degree in Zoology and an MSc in Freshwater Ecology from Trinity College, Dublin and she has been a full member of the Chartered Institute of Ecology and Environmental Management for over fifteen years. Noreen has over 16 years' experience as a professional ecologist in Ireland and in that time, she has carried out an extensive number of Appropriate Assessments and Ecological Impact Assessments for a wide range of developments.

## **2.3 DESK STUDIES & CONSULTATION**

Information on the site and the area of the proposed development was studied prior to the completion of this statement. The following data sources were accessed in order to complete a thorough examination of potential impacts:

- National Parks and Wildlife Service - Aerial photographs and maps of designated sites, information on habitats and species within these sites and information on protected plant or animal species, conservation objectives, site synopses and standard data forms for relevant designated sites.
- Environmental Protection Agency (EPA)- Information pertaining to water quality, geology and licensed facilities within the area;
- Myplan.ie – Mapped based information;
- National Biodiversity Data Centre (NBDC) – Information pertaining to protected plant and animal species within the study area;
- Bing maps & Google Street View – High quality aerials and street images;
- Punch Consulting Engineers – Plans and Information Pertaining to the Development
- Limerick City and County Council – Information on planning history in the area for the assessment of cumulative impacts.

## **2.4 ASSESSMENT METHODOLOGY**

The proposed development was assessed to identify its potential ecological impacts and from this, the Zone of Influence (Zoi) of the proposed development was defined. Based on the potential impacts and their Zoi, the Natura 2000 sites potentially at risk from direct, indirect or in-combination impacts were identified. The assessment considered all potential impact sources and pathways connecting the proposed development to Natura 2000 sites, in view of the conservation objectives supporting the favourable conservation condition of the site's Qualifying Interests (QIs) or Special Conservation Interests (SCIs).

The conservation objectives relating to each Natura 2000 site and its QIs/SCIs are cited generally for SACs as “to maintain or restore the favourable conservation condition of the Annex I habitat(s) and/or Annex II species for which the SAC has been selected”, and for SPAs “to maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA”.

As defined in the Habitat’s Directive, the favourable conservation status of a habitat is achieved when:

- Its natural range and area it covers within that range is 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;

The favourable conservation status of a species is achieved when:

- The 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;
- There is, and will probably continue to be, a sufficiently large habitat to maintain its populations on a long-term basis.

Where site-specific conservation objectives (SSCOs) have been prepared for a European site, these include a series of specific attributes and targets against which effects on conservation condition, or integrity, can be measured. Where potential significant effects are identified, then these SSCO should be considered in detail.

### **3 SCREENING**

#### **3.1 DEVELOPMENT DESCRIPTION**

Limerick City and County Council are seeking permission for the construction of a new integrated cycle scheme in Limerick City. The route will be from St Nessian's Road via South Circular Road and Henry St to Bishops Quay. The total length of the proposed route is approximately 2.8km. Permission for the works will be sought under Part 8 of the Planning and Development Regulations 2001. The proposed works will involve alterations to the existing road network which includes both increasing and reducing road width, a new cycle track construction, a new footpath construction, pedestrian crossings, traffic calming measures, shared surfaces, new road markings and all ancillary works necessary for completion of the scheme. Upon completion of the project, there will be improved facilities for both pedestrians and cyclists with an aim to reduce the reliability on private car use in the area.

The overall purpose of this project is to provide dedicated cycle facilities from the Ballykeefe Roundabout through to Bishops Quay in the city centre via South Circular Road and Henry St. The proposed works will tie into a number of similar schemes and ultimately it will provide a sustainable mode of transport across Limerick City in accordance with Limerick Shannon Metropolitan Area Transport Strategy (LSMATS). The project is proposed to tie in with the Arthurs Quay Park to Condell Road Cycle Lanes Project at the Bishops Quay at the northern end of the proposed route and with the St Necessans Road/Dooradoyle Road Cycle Lanes Project at the Ballykeefe Roundabout at the southern end of the route.

An extract from the planning drawings as submitted is shown in Figure 1.

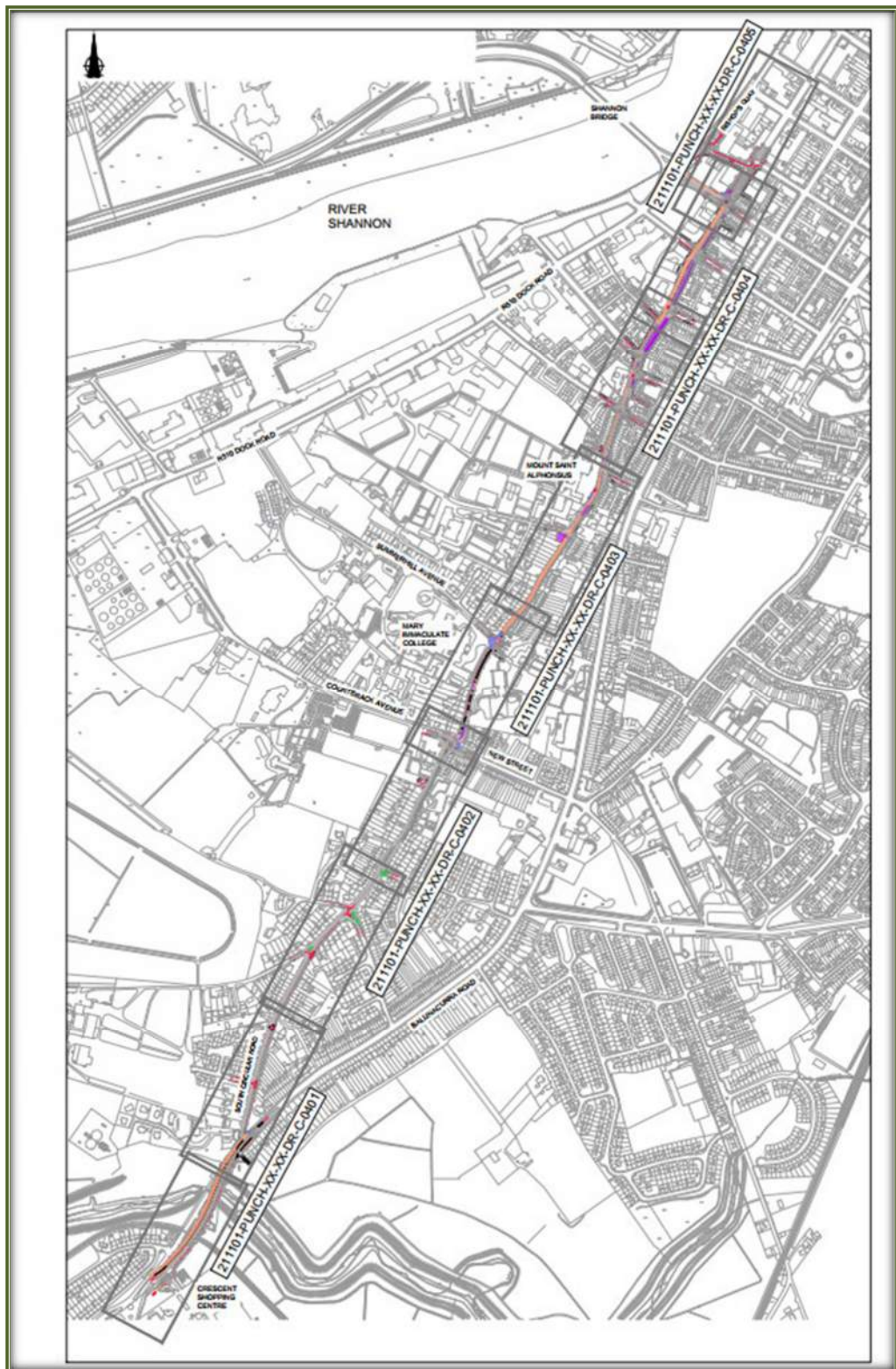


Figure 1 – Key Plan of the Proposed Route (Prepared by Punch Engineering Consultants)

### Proposed Drainage

The proposed scheme has existing main line stormwater drainage provided along its entire route. It is envisaged that the proposed footpaths, cycle tracks and carriageways will drain freely to gullies along the length of the scheme. The provision of side entry/kerb gullies in place of road gullies where possible will further enhance the cyclist experience. ACO chambers may also be required in some locations along property boundaries where gradients fall towards the properties.

Where existing gullies need to be relocated due to widening of existing footpaths, this will be accommodated in the detailed design of the scheme. Localised low points along the route will also be accommodated in the detailed design of the scheme to ensure no ponding occurs.

### Pavement

Pavement will be designed in compliance with TII Standards at detailed design stage. The process will start with the consideration of the cumulative traffic loading which the pavement is required to carry, followed by the design of the foundation, the base or main structural component and the surface course. In order to give the highest quality of service for cyclists, it is envisaged that a smooth asphalt surface course will be used with 10mm aggregate as recommended by the National Cycle Manual. For ease of construction and continuity, it is proposed to use the same surfacing for the cycle-tracks and carriageway throughout the scheme, with potential for epoxy resin, thermoplastic surfacing, or similar on sections of the cycle-track to visually distinguish them.

### Traffic Signs and Road Markings

Traffic signs and road markings will be reviewed and confirmed as part of the detail design package. They will be designed in compliance with the Traffic Signs Manual (2019).

### Public Lighting

Existing Public lighting along the route is to be retained where possible. Where existing public lighting is to be set back or removed, new energy efficient public lighting will be provided in accordance with LCC requirements.

### Bus Stop

The existing bus stop on the Ballinacurra Road arm of the Ballykeefe Roundabout (adjacent to the Crescent Shopping Centre) is the southern tie in point for the scheme. It is proposed to modify the existing bus stop by providing a widened shared area and beginning the two-way cycle facility from the existing bus lane.

There is an existing bus stop located adjacent to Scoil Mháthair Dé on the South Circular Road which will be removed.

#### Services

With the changes proposed to the existing carriageway there will be minor level changes that will impact existing services. The changes will all be coordinated with the relevant authorities as necessary during the details design of the scheme.

#### Landtake

The majority of the scheme is to be constructed on lands in ownership of LCCC or on lands that are to be handed over to the council by the landowner.

#### Construction Methodology

An overview of the proposed Construction Methodology is provided in the Preliminary Design Report prepared by Punch Consulting Engineers. It is anticipated that the construction programme for the works will last circa 3 months. The Contractor will be required to prepare a detailed construction programme as part of their tender proposal.

As the project is over approximately 2.8km in length, a rolling works area generally 600m in length will be required to minimise disruption. As such site clearance will also be undertaken on a rolling basis subject to the Contractors programme and LCCC approval.

### 3.2 SITE LOCATION AND SURROUNDING ENVIRONMENT

The works are located in South Limerick city. The route of the proposed cycle corridor will go from St Nessian's Road in the south starting at the Ballykeefe Roundabout and it will progress north along the South Circular Road, onto Henry St and further onto the Henry Street/Lower Mallow Street Junction, to terminate at the Shannon Bridge Roundabout where Bishops Quay, Rock Road and Lower Mallow St convene.

The proposed route will follow the existing road infrastructure. It will travel initially along the dual carriageway of the R526 which flies over the N18. The route then progresses along South Circular Road, which is a narrower road through a largely residential area. It also passes the campus of Mary Immaculate College and Saint Clement's Redemptorist College and Church. The route then progresses along Henry St, whereupon it turns left (north) onto Bishop's Quay. Site location maps of the route are provided in Figures 2 and 3, whilst an aerial photograph of the route is provided in Figure 4.

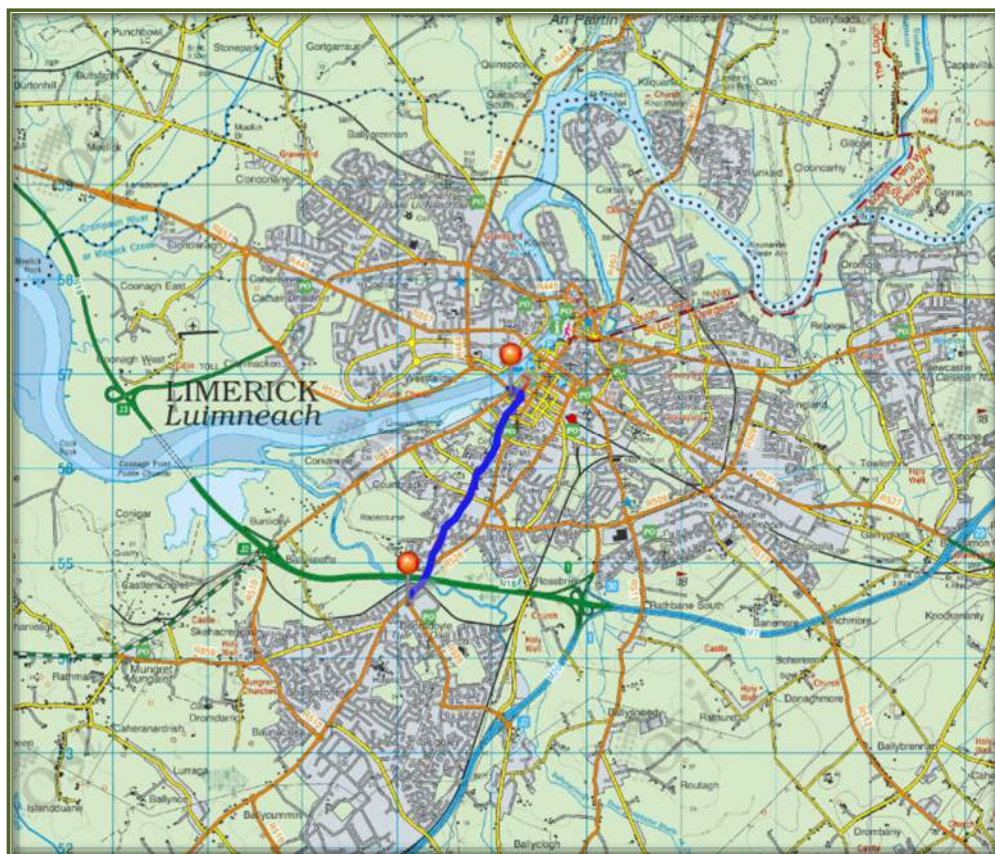


Figure 2 – Site Location Map (Beginning and End Points Pinned, Route Marked in Blue)



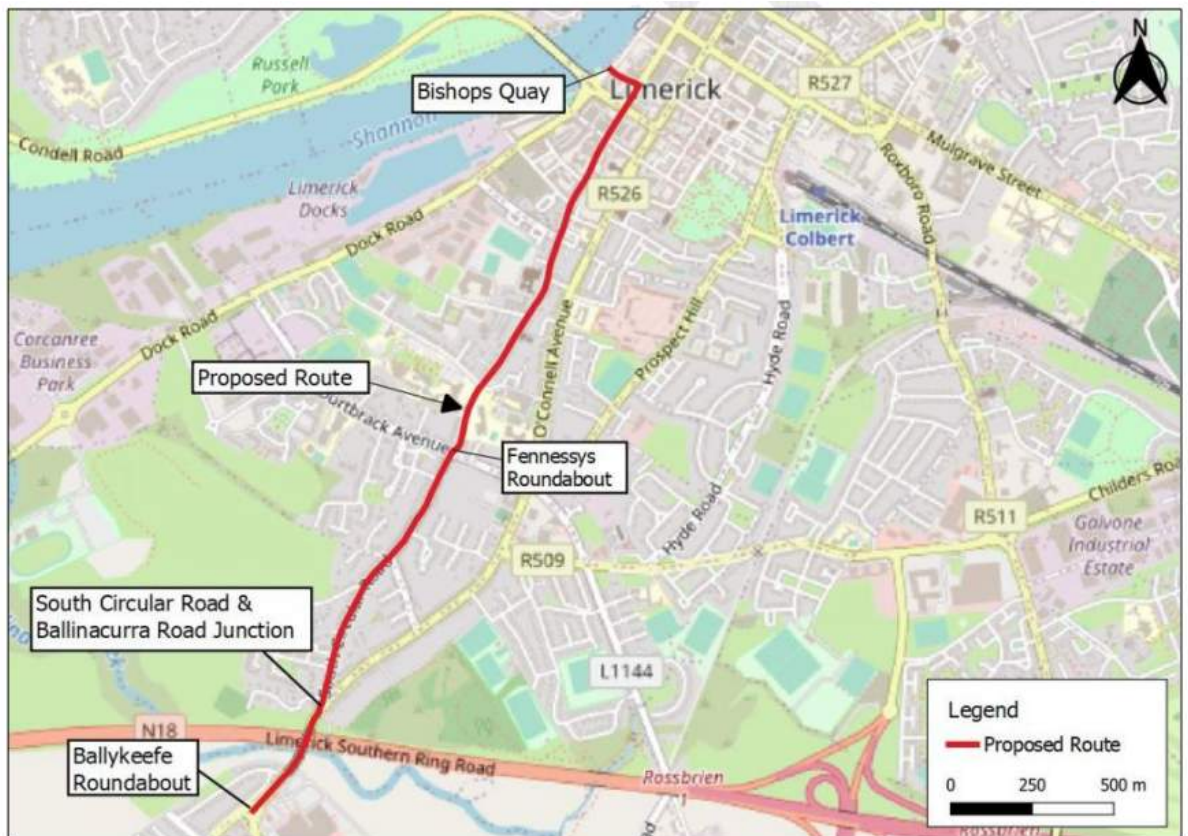


Figure 3 – Site Location Map (Punch Engineering Consultants)

### LAND USE AND HABITATS

All works are contained within the urban and sub-urban areas of Limerick city. The dominant habitats associated with these areas include Buildings and Artificial Surfaces. There are some small areas of amenity grasslands and gardens, and scattered trees and shrubs in the lands around the proposed route. There are no habitats of biodiversity value along the proposed route given their urban nature. The River Shannon is west / north-west of the proposed route and the route finishes at Bishops Quay, on the eastern banks of the Shannon.

### WATER FEATURES AND QUALITY

The application site is located within the Shannon Estuary South Hydrometric Area (24) and Catchment (24), the Ballynaclogh Sub-Catchment (010) and Sub-Basin (010). The works at Bishops Quay will be the closest point of works to the River Shannon at 32m. The route will also pass over a tributary of the Shannon at the N18 flyover.

The River Shannon Estuary is a transitional water body and near Limerick City, its status has been described as poor. Under the requirements of the Water Framework Directive in Ireland, this status is unsatisfactory, and good status should be achieved in the River Shannon and other watercourses within the next cycle of the WFD.

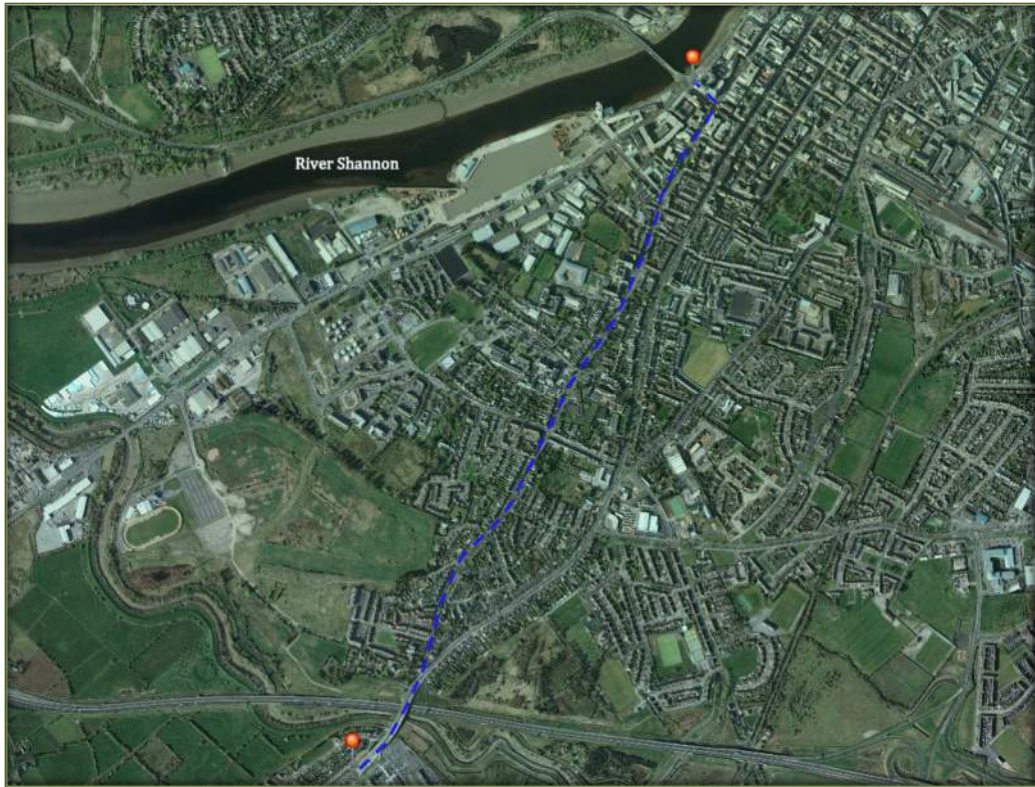


Figure 4 – Aerial Photograph of the Proposed Route (Marked in Blue) and the Surrounding Habitats

### 3.3 NATURA 2000 SITES IDENTIFIED

In accordance with the guidelines issued by the Department of the Environment and Local Government, a list of Natura 2000 sites within 15km of the proposed development have been identified and described according to their site synopsis, qualifying interests and conservation objectives. In addition, any other sites further than this, but potentially within its zone of interest were also considered. The zone of impact may be determined by an assessment of the connectivity between the application site and the designated areas by virtue of hydrological connectivity, atmospheric emissions, flight paths, ecological corridors etc.

For significant effects to arise, there must be a potential impact facilitated by having a *source*, i.e., the proposed development and activities arising out of its construction or operation, a *receptor*, i.e., the European site and its qualifying interests and a subsequent *pathway* or *connectivity* between the source and receptor, e.g., a water course. The likelihood for significant effects on the European site will largely depend on the characteristics of the source (e.g., nature and scale of the construction works), the characteristics of the existing pathway and the characteristics of the receptor, e.g., the sensitivities of the Qualifying Interests (habitats or species) to changes in water quality.

There are eight Natura 2000 sites within 15km of this proposed development. These sites are summarised in Table 1. The location of the application site in relation to these designated areas is shown in Figures 5 and 6, and a full synopsis of these sites can be read online on the website of the National Parks and Wildlife Service ([www.npws.ie](http://www.npws.ie)). The distances stated below are from the closest point of the proposed route.

European Site	Distance	Qualifying Interests	Potential Effects
Lower River Shannon SAC 002165	38m north-west at Bishops Quay	<ul style="list-style-type: none"> <li>• Sandbanks which are slightly covered by sea water all the time</li> <li>• Estuaries</li> <li>• Mudflats and sandflats not covered by seawater at low tide</li> <li>• Coastal lagoons</li> <li>• Large shallow inlets and bays</li> <li>• Reefs</li> <li>• Perennial vegetation of stony banks</li> <li>• Vegetated sea cliffs of the Atlantic and Baltic coasts</li> <li>• Salicornia and other annuals colonising mud and sand</li> <li>• Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>)</li> </ul>	<p><i>The proposed works will largely be removed from this SAC, only coming within 38m of the SAC at the end point at Bishops Quay. The works will not take place directly adjacent to the water however, and it is not anticipated that the construction works will give rise to emissions that may run-off into this SAC. Nonetheless, due to the proximity of the site to this SAC (38m), potential significant effects upon the QIs arising from the proposed development will be considered further.</i></p>

		<ul style="list-style-type: none"> <li>• Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</li> <li>• Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</li> <li>• Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</li> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)</li> <li>• <i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel)</li> <li>• <i>Petromyzon marinus</i> (Sea Lamprey)</li> <li>• <i>Lampetra planeri</i> (Brook Lamprey)</li> <li>• <i>Lampetra fluviatilis</i> (River Lamprey)</li> <li>• <i>Salmo salar</i> (Salmon)</li> <li>• <i>Tursiops truncatus</i> (Common Bottlenose Dolphin)</li> <li>• <i>Lutra lutra</i> (Otter)</li> </ul>	
River Shannon and River Fergus Estuaries SPA 004077	51m west at Steamboat Quay	<ul style="list-style-type: none"> <li>• Cormorant (<i>Phalacrocorax carbo</i>)</li> <li>• Whooper Swan (<i>Cygnus cygnus</i>)</li> <li>• Light-bellied Brent Goose (<i>Branta bernicla hrota</i>)</li> <li>• Shelduck (<i>Tadorna tadorna</i>)</li> <li>• Wigeon (<i>Anas penelope</i>)</li> <li>• Teal (<i>Anas crecca</i>)</li> <li>• Pintail (<i>Anas acuta</i>)</li> <li>• Shoveler (<i>Anas clypeata</i>)</li> <li>• Scaup (<i>Aythya marila</i>)</li> <li>• Ringed Plover (<i>Charadrius hiaticula</i>)</li> <li>• Golden Plover (<i>Pluvialis apricaria</i>)</li> <li>• Grey Plover (<i>Pluvialis squatarola</i>)</li> <li>• Lapwing (<i>Vanellus vanellus</i>)</li> <li>• Knot (<i>Calidris canutus</i>)</li> <li>• Dunlin (<i>Calidris alpina</i>)</li> <li>• Black-tailed Godwit (<i>Limosa limosa</i>)</li> <li>• Bar-tailed Godwit (<i>Limosa lapponica</i>)</li> <li>• Curlew (<i>Numenius arquata</i>)</li> <li>• Redshank (<i>Tringa totanus</i>)</li> <li>• Greenshank (<i>Tringa nebularia</i>)</li> <li>• Black-headed Gull (<i>Chroicocephalus ridibundus</i>)</li> <li>• Wetland and Waterbirds</li> </ul>	<p>The proposed works will largely be removed from this SPA, only coming within 51m of the SPA at the end point at Bishops Quay. The works will not take place directly adjacent to the water however, and it is not anticipated that the construction works will give rise to emissions that may run-off into this SAC.</p> <p>Nonetheless, due to the proximity of the site to this SPA (51m), potential significant effects upon the QIs arising from the proposed development will be considered further</p>

Glenomra Wood SAC 001013	10.8km north	<ul style="list-style-type: none"> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> </ul>	<p><i>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off during construction and operation can be ruled out.</i></p> <p><i>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</i></p>
Danes Hole, Poulnalecka SAC 000030	15km north	<ul style="list-style-type: none"> <li>• Caves not open to the public</li> <li>• Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</li> <li>• <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)</li> </ul>	<p><i>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off during construction and operation can be ruled out.</i></p> <p><i>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</i></p>
Ratty River Cave SAC	14.7km north-west	<ul style="list-style-type: none"> <li>• Caves not open to the public</li> <li>• <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)</li> </ul>	<p><i>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off during construction and operation can be ruled out.</i></p> <p><i>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</i></p>
Tory Hill SAC 000439	10.6km south	<ul style="list-style-type: none"> <li>• Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites)</li> <li>• Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae</li> <li>• Alkaline fens</li> </ul>	<p><i>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off during construction and operation can be ruled out.</i></p> <p><i>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</i></p>
Askeaton Fen Complex SAC 002279	13.2km west	<ul style="list-style-type: none"> <li>• Calcareous fens with <i>Cladium mariscus</i> and species of the Caricion davallianae</li> <li>• Alkaline fens</li> </ul>	<p><i>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off</i></p>

			<p>during construction and operation can be ruled out.</p> <p>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</p>
<p>Curraghchase Woods SAC 000174</p>	<p>15km south-west</p>	<ul style="list-style-type: none"> <li>• Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)</li> <li>• <i>Taxus baccata</i> woods of the British Isles</li> <li>• <i>Rhinolophus hipposideros</i> (Lesser Horseshoe Bat)</li> </ul>	<p>There is no hydrological connectivity between the application site and this SAC, therefore significant effects arising on this site due to pollutant containing run-off during construction and operation can be ruled out.</p> <p>This SAC is at a sufficient distance from the site to ensure that significant effects on the QIs of this SAC will not arise.</p>

Table 1 – Natura 2000 Sites Within 15km of the Proposed Site

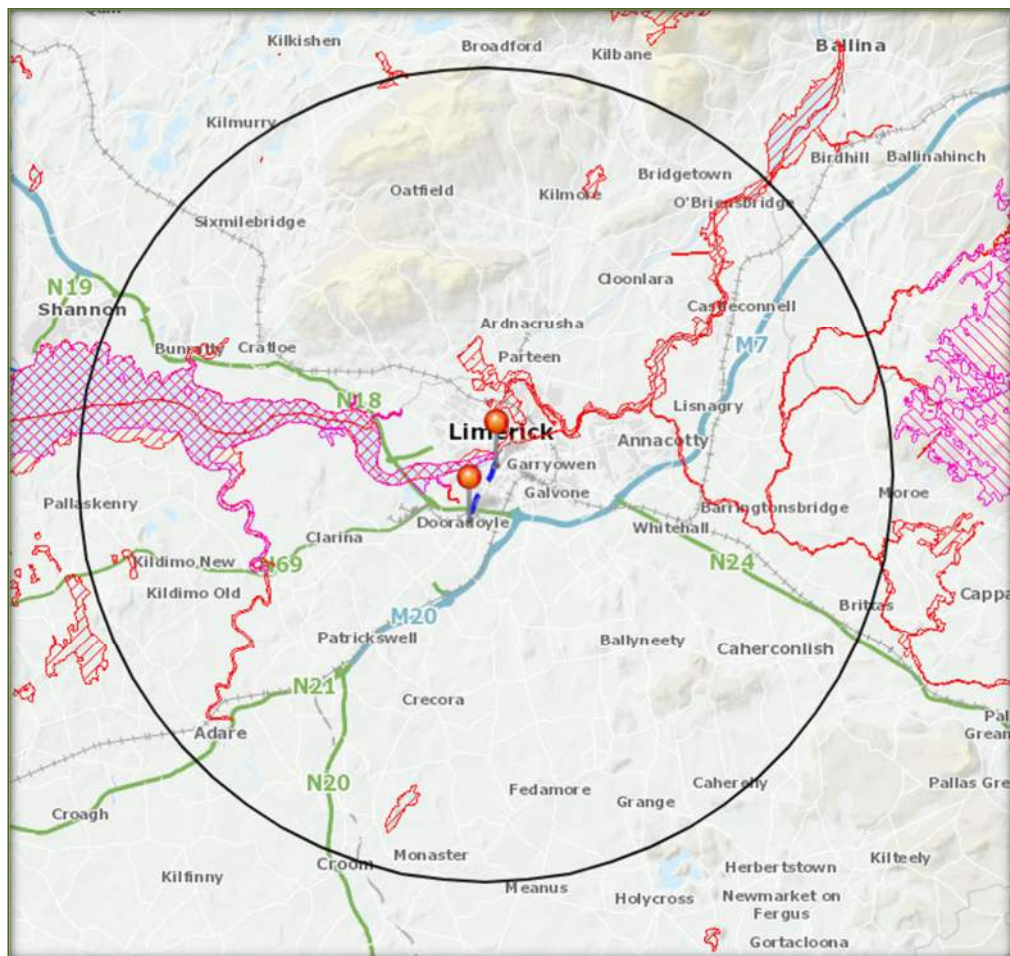


Figure 5 – The Application Site (Pinned) in relation to the Natura 2000 Sites Within 15km (SACs – Red Hatching, SPAs – Pink Hatching)



Figure 6 – The Application Site (Outlined) in relation to the Lower River Shannon SAC (Red Hatching) and the River Shannon and River Fergus Estuaries SPA (Pink Hatching)

### **LOWER RIVER SHANNON (SAC SITE CODE 0002165)**

#### Site Synopsis

This site is a very large, long SAC, approximately 14 km wide and 120 km long, encompassing: the drained river valley which forms the River Shannon estuary; the broader River Fergus estuary, plus a number of smaller estuaries e.g. Poulnasherry Bay; the freshwater lower reaches of the Shannon River, between Killaloe and Limerick, plus the freshwater stretches of much of the Feale and Mulkear catchments; a marine area at the mouth of the Shannon estuary with high rocky cliffs to the north and south; ericaceous heath on Kerry Head and Loop Head; and several lagoons. The underlying geology ranges from Carboniferous limestone (east of Foynes) to Namurian shales and flagstones (west of Foynes) to Old Red Sandstone (at Kerry Head). The salinity of the system varies daily with the ebb and flood of the tide and with annual rainfall fluctuations seasonally.

The site contains many Annexed habitats, including the most extensive area of estuarine habitat in Ireland. A good range of Annexed species are also present, including the only known resident population of the common bottlenose dolphin *Tursiops truncatus* in Ireland, all three Irish species of lamprey, and a good population of *Salmo salar*. A number of birds listed on the EU Birds Directive either winter or breed in the site. The site is internationally important for with more than 50,000 individuals occurring in winter. Several species listed in

the Irish Red Data Book are present, perhaps most notably the only known Irish populations of *Scirpus triqueter*.

#### Site Specific Conservation Objectives

In 2012, the NPWS published Site Specific Conservation Objectives (SSCOs) for this SAC. These conservation objectives were also supported by a number of other documents relating to the marine, coastal, lagoon and woodland habitats and the watercourses of this large and complex SAC. In general, these SSCO's aim to define the favourable conservation condition for the particular habitats or species at that site. They outline certain attributes (e.g., distribution, population structure, water quality) for different species and habitats with targets, which define favourable condition for a habitat or species at a particular site. The restoration or maintenance of habitats and species within the Natura 2000 sites at favourable conservation condition will contribute to the overall maintenance of favourable conservation status of those habitats and species at national level. For the Lower River Shannon SAC, these SSCO's can be downloaded on the NPWS website. Arising from the proposed development at Raheen, any potential threats to the attributes and targets as defined in these SSCO's were assessed.

For each Qualifying Interest of the SAC, the specific conservation objective is either to *maintain or restore* the favourable conservation condition of that interest, by defining a list of attributes and targets which are indicative of the conservation status of that interest. For habitats, the main attributes include habitat area; habitat and community distribution; vegetation structure/composition and physical structure. The main target is to ensure that the habitats are stable or increasing in area and that the other attributes are maintained or restored. For the Annex II species of the SAC, the main attributes are population trend and distribution, whilst the targets aim to ensure that the long term population trends of the species are stable or increasing and that there is no significant decrease in the numbers or range of areas used by the species, other than that occurring from natural patterns of variation.

#### Qualifying Interests of the Lower River Shannon SAC

The Lower River Shannon SAC covers an extensive area of the south-west of Ireland. It is over 68,000 hectares in area and it has 21 qualifying interests. All QIs of the SAC are listed below Table 2. The potential significant effects upon each QI are considered.



Qualifying Interest [Code]	Objective	Significant Effects	Rationale
Freshwater pearl mussel <i>Margaritifera margaritifera</i> [1029]	To <i>restore</i> its favourable conservation condition	No	Within this SAC, this species only occurs within the Cloon River in Co. Clare. It does not occur within the Zone of Influence of the application site. Significant effects upon this species can be ruled out.
Sea lamprey <i>Petromyzon marinus</i> [1095]	To <i>restore</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species.
Brook Lamprey <i>Lampetra planeri</i> [1096]	To <i>maintain</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species.
River Lamprey <i>Lampetra fluviatilis</i> [1099]	To <i>maintain</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species.
Salmon <i>Salmo salar</i> [1106]	To <i>restore</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and

			the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species.
Sandbanks which are slightly covered by sea water all the time [1110]	To <i>maintain</i> its favourable conservation condition	No	Map 3 of the SSCOs illustrates the location of this QI in the SAC. It occurs at the mouth of the River Shannon, which is over 80km from the application site. Significant effects upon this QI can therefore be ruled out.
Estuaries [1130]	To <i>maintain</i> its favourable conservation condition	No	The River Shannon at its closest point to the application site is considered an estuarine habitat and this is shown in Map 4 of the SSCO. Water quality is not a target for the maintenance of this QI at favourable conservation condition. The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI habitat.
Mudflats and sandflats not covered by seawater at low tide [1140]	To <i>maintain</i> its favourable conservation condition	No	Map 5 of the SSCOS indicates that this habitat occurs in the Shannon Estuary at around Limerick City. However, the favourable conservation condition is not defined by any targets relating to water quality. The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI habitat.
Coastal lagoons [1150]	To <i>restore</i> its favourable conservation condition	No	Map 6 of the SSCOs illustrates the location of this QI in the SAC. There are a number of coastal lagoons within this SAC. The closest one to the application site is near Shannon airport and this is

			over 17km west of the route. Given this distance, significant effects upon this QI can be ruled out.
Large shallow inlets and bays [1160]	To <i>maintain</i> its favourable conservation condition	No	Map 7 of the SSCOs illustrates the location of this QI in the SAC. It occurs in the Shannon Estuary, downstream of Kilrush which is over 58km west of Limerick City. Given this distance, significant effects upon this QI can be ruled out.
Reefs [1170]	To <i>maintain</i> its favourable conservation condition	No	Map 8 of the SSCOs illustrates the location of this QI in the SAC. It occurs downstream of Limerick city. Its favourable conservation condition is not defined by any targets relating to water quality. The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI habitat.
Perennial vegetation of stony banks [1220]	To <i>maintain</i> its favourable conservation condition	No	Map 10 of the SSCOs illustrates the location of this QI in the SAC. Its closest location is at Ballymacrinan Bay, which is 55km west of Limerick. Given this distance, significant effects upon this QI can be ruled out.
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	To <i>maintain</i> its favourable conservation condition	No	Map 11 of the SSCOs illustrates the location of this QI in the SAC. Its closest location is at Burrane, which is 50km west of Limerick. Given this distance, significant effects upon this QI can be ruled out.
Salicornia and other annuals colonising mud and sand [1310]	To <i>maintain</i> its favourable conservation condition	No	Map 12 of the SSCOs illustrates the location of this QI in the SAC. Its distribution is sparse and the closest mapped location to the application site is over 50km west. Given this distance, significant effects upon this QI can be ruled out.
Atlantic salt meadows [1330]	To <i>restore</i> its favourable conservation condition	No	This is the most common saltmarsh habitat within the SAC. Map 12 of the SSCOs illustrates the location of this QI in the SAC. Its closest potential point to the application site is approximately 10km north-west of the route. Given this

			distance significant effects upon this QI can be ruled out.
Bottlenose dolphin <i>Tursiops truncatus</i> [1349]	To <i>maintain</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species.
Otter <i>lutra lutra</i> [1355]	To <i>restore</i> its favourable conservation condition	No	The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI species. There will be no loss or fragmentation of the riparian habitat along the River Shannon that are used by the otter.
Mediterranean salt meadows [1410]	To <i>restore</i> its favourable conservation condition	No	Map 12 of the SSCOs illustrates the location of this QI in the SAC. It occurs in small pockets throughout the SAC. Its closest potential point to the application site is at Barrigone, approximately 29km west of Limerick City. Given this distance and the fact that there is no hydrological connectivity, significant effects can be ruled out.
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and Callitricho-Batrachion vegetation [3260]	To <i>maintain</i> its favourable conservation condition	No	Map 13 of the SSCOs illustrates the location of this QI in the SAC. It occurs in the freshwater upper areas of the Shannon and also in the transitional waters. It has been mapped at points around Limerick city ( <i>Schoenoplectus triquetus</i> subtype). The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SAC boundary is approximately 38m, which is sufficient to ensure that there will be minimal run-off into the water during the

			construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI habitat.
Molinia meadows on calcareous, peaty or clayey-silt-laden soils ( <i>Molinion caeruleae</i> ) [6410]	To <i>maintain</i> its favourable conservation condition	No	Full distribution of this habitat within the SAC is unknown, but it has been recorded on the eastern banks of the Shannon, just north of Castleconnell, Co. Limerick. It is a terrestrial habitat. It is unlikely to occur within the Zone of Influence of the application site and therefore significant effects upon this habitat can be ruled out.
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> [91E0]	To <i>restore</i> its favourable conservation condition	No	Map 14 of the SSCO illustrates the location of this habitat within the SAC. It is found upstream of Limerick city and therefore it is outside of the Zone of Influence of the proposed development. Therefore, significant effects upon this QI can be ruled out.

**Table 2 – The Qualifying Interests of the Lower River Shannon SAC**

## **RIVER SHANNON AND RIVER FERGUS ESTUARIES SPA 004077**

### Site Synopsis

The River Shannon and River Fergus Estuaries form the largest estuarine complex in Ireland. The site comprises all of the estuarine habitat west from Limerick City and south from Ennis, extending west as far as Killadysert and Foynes on the north and south shores of the Shannon respectively (a distance of some 25 km from east to west). Also included are several areas in the outer Shannon estuary, notably Clonderalaw Bay and Poulnasherry Bay. The site has vast expanses of intertidal flats. The main macro-invertebrate community is a *Macoma-Scrobicularia-Nereis* community which provides a rich food resource for the wintering birds. Eelgrass (*Zostera* spp.) is present in places. The intertidal flats are often fringed with salt marsh vegetation, areas which provide important high tide roost sites for the birds. In the innermost parts of the estuaries, the tidal channels or creeks are fringed with species such as *Phragmites australis* and *Scirpus* spp. *Spartina anglica* is frequent in parts.

This is the most important coastal wetland site in the country and regularly supports in excess of 50,000 wintering waterfowl. It has internationally important populations of *Calidris alpina*, *Limosa limosa* and *Tringa totanus*. A further 16 species have populations of national importance. The site is particularly significant for *Calidris alpina* (11% of national total), *Pluvialis squatarola* (7.5% of total), *Vanellus vanellus* (6.5% of total), *Tringa totanus* (6.1% of total) and *Tadorna tadorna* (6.0% of total). It has *Cygnus cygnus*, *Pluvialis apricaria* and *Limosa lapponica* in significant numbers. The site was formerly frequented by a population of *Anser albifrons flavirostris* but these have now abandoned the area. The site provides both feeding and roosting areas for the wintering birds and habitat quality for most of the estuarine habitats is good.

### Site Specific Conservation Objectives

In 2012, the NPWS published full SSCOs for this site. These SSCOs, along with the full NPWS site synopsis for this SPA can be read on the website of the National Parks and Wildlife Service. The conservation objective supporting documents and the Natura 2000 standard data form are also obtainable here. All these documents were referred to in the preparation of this AA Screening Report.

### Qualifying Interests of the River Shannon and River Fergus Estuaries SPA

There are 21 bird species listed as Special Conservation Interests (SCIs) for this SPA, whilst wetlands and waterbirds is also an additional interest.

The SCI species for the River Shannon and Fergus Estuary SPA are listed below in Table 3 along with their current conservation condition. The primary objective of this SPA is to maintain the favourable conservation condition of these non-breeding waterbird SCI species listed for this SPA.

This objective is defined by the following attributes and targets:

- To be favourable, the long-term population trend for each waterbird Special Conservation Interest species should be stable or increasing. Waterbird populations are deemed to be unfavourable when they have declined by 25% or more, as assessed by the most recent population trend analysis.
- To be favourable, there should be no significant decrease in the range, timing or intensity of use of areas by the waterbird species of Special Conservation Interest, other than that occurring from natural patterns of variation.

Factors that can adversely affect the achievement of Objective 1 include:

- Habitat modification: activities that modify discreet areas or the overall habitat(s) within the SPA in terms of how one or more of the listed species use the site (e.g. as a feeding resource) could result in the displacement of these species from areas within the SPA and/or a reduction in their numbers.
- Disturbance: Anthropogenic disturbance that occurs in or near the site and is either singular or cumulative in nature could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and a reduction in their numbers.
- Ex-situ factors: several of the listed waterbird species may at times use habitats situated within the immediate hinterland of the SPA or in areas ecologically connected to it. The reliance on these habitats will vary from species to species and from site to site. Significant habitat changes or increased levels of disturbance within these areas could result in the displacement of one or more of the listed waterbird species from areas within the SPA, and/or a reduction in their numbers

Species	Site Conservation Condition	BoCCI Category <sup>1</sup>
Cormorant ( <i>Phalacrocorax carbo</i> )	Undetermined	Amber
Whooper Swan ( <i>Cygnus cygnus</i> )	Favourable	Amber
Light-bellied Brent Goose ( <i>Branta bernicla hrota</i> )	Undetermined	Amber
Shelduck ( <i>Tadorna tadorna</i> )	Undetermined	Amber
Wigeon ( <i>Anas penelope</i> )	Highly Unfavourable	Amber
Teal ( <i>Anas crecca</i> )	Undetermined	Amber
Pintail ( <i>Anas acuta</i> )	Undetermined	Red
Shoveler ( <i>Anas clypeata</i> )	Undetermined	Red
Scaup ( <i>Aythya marila</i> )	Undetermined	Amber
Ringed Plover ( <i>Charadrius hiaticula</i> )	Undetermined	Amber
Golden Plover ( <i>Pluvialis apricaria</i> )	Undetermined	Red
Grey Plover ( <i>Pluvialis squatarola</i> )	Undetermined	Amber
Lapwing ( <i>Vanellus vanellus</i> )	Undetermined	Red
Knot ( <i>Calidris canutus</i> )	Undetermined	Red
Dunlin ( <i>Calidris alpina</i> )	Undetermined	Amber
Black-tailed Godwit ( <i>Limosa limosa</i> )	Undetermined	Amber
Bar-tailed Godwit ( <i>Limosa lapponica</i> )	Undetermined	Amber
Curlew ( <i>Numenius arquata</i> )	Undetermined	Red
Redshank ( <i>Tringa totanus</i> )	Undetermined	Red
Greenshank ( <i>Tringa nebularia</i> )	Undetermined	Amber
Black-headed Gull ( <i>Chroicocephalus ridibundus</i> )	Undetermined	Red
Wetland and Waterbirds	N/A	N/A

Table 3 – Species of the River Shannon and River Fergus Estuaries SPA

The Conservation Objectives for waterbird SCIs of the River Shannon and River Fergus Estuary SPA are listed below:

Parameter	Attribute	Measure	Target
Population	Population trend	Percentage change as per population trend assessment using water bird count data collected through the Irish Wetland Bird Survey and other surveys.	Long term population trend stable or increasing
Range	Distribution	Number and range of areas used by water birds as determined by regular low tide and other water bird surveys	No significant decrease in the range, timing or intensity of use of areas by the QI, other than that occurring from natural patterns of variation

Table 4 – Conservation Objectives of the Conservation Interests of the SPA (Species)

<sup>1</sup> BoCCI – Birds of Conservation Concern Ireland. See Lynas et al. (2007) for detailed listing criteria;



For wetlands, the conservation objective is to maintain the favourable conservation condition of the wetland habitats at the River Shannon and River Fergus Estuaries SPA as a resource for the regularly occurring migratory waterbirds that utilise it. This is defined by the following attributes and targets.

Parameter	Attribute	Measure	Target
Area	Wetland habitat	Area (ha)	The permanent area occupied by the wetland habitat should be stable and not significantly less than the area of 32,261 hectares, other than that occurring from natural patterns of variation

Table 5 – Conservation Objectives of the Conservation Interests of the SPA (Wetlands)

#### Potential Significant Effects upon the QIs of this SPA

The proposed works will not give rise to any significant emissions into the River Shannon as apart from the section at Bishops Quay, they are largely removed from the Shannon corridor. At Bishops Quay the distance between works and the SPA boundary is approximately 51m, which is sufficient to ensure that there will be minimal run-off into the water during the construction works. Therefore, as there will be no reductions in water quality in the River Shannon, there will be no significant effects upon this QI bird species of this SPA.

### 3.4 IMPACT ASSESSMENT

The potential impacts of the proposed development on the Natura 2000 sites identified are described below.

**Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on nearby Natura 2000 site:**

The construction and operation of the proposed cycle route will have no significant effects upon the integrity or the site structure of the designated sites identified, i.e., the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA. There are no individual elements of the proposed project that are likely to give rise to negative impacts on these aforementioned sites. The application site is close to these sites at the Bishops Quay end; however, significant effects on these sites arising from pollution during construction and operation of the proposed development are unlikely to occur as separation distance of 38m is sufficient.

**Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the nearby Natura 2000 sites by virtue of:**

**Size and scale:** Given the small size and scale of the development in relation to the overall size of the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA, the likelihood of any direct, indirect or cumulative impacts on this designated site arising from the construction and operation of the proposed development are low.

**Land-take:** There will be no land-take from any designated site. There will be no interference with the boundaries of any designated site.

**Distance from Natura 2000 site or key features of the site:** There are eight Natura 2000 sites within 15km of the application site. The closest of these include the Lower River Shannon SAC (38m at Bishops Quay) and the River Shannon and River Fergus Estuaries SPA (51m at Bishops Quay). In this instance, given the fact that emissions into the sites will not arise, significant effects can be ruled out.

**Resource requirements (water abstraction etc.):** No resources will be taken from any Natura 2000 site and there are no resource requirements that will impact upon any designated site.

**Emissions:** Neither the construction nor the operation of the proposed development will result in any emissions to the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA. The majority of the works around the route are well removed from the SAC/SPA. The closest point will be the works at Bishops Quay, however these works will be approximately 38m from the SAC boundary and 51m from the SPA boundary and this separation distance will ensure that any run-off generated from the construction works into the SAC / SPA will be minimal.

A Construction Methodology will be supplied by the contractor upon award of tender and this plan will include for measures to contain run-off onto the surrounding roads and streets. This is not considered mitigation for the purpose of AA.

During operation, surface water run-off from the route will be directed into the existing stormwater drainage system.

**Excavation requirements:** Excavated material from the construction will be used on site. Any remaining will be disposed of in a responsible manner in a licensed facility away from any designated sites.

**Transportation requirements:** There will be no additional transportation requirements resulting from the proposed development and associated works that will have any impact upon the Natura 2000 sites identified. No part of the proposed route will be constructed within the SAC or SPA boundary.

**In-Combination / Cumulative Impacts:** In order to make an assessment of potential in-combination impacts the planning portal of Limerick City and County Council was examined for granted / pending developments in the Limerick area for the last five years. In this time, a large number of commercial and residential developments have been granted planning permission. A number of LCCC Part 8 Developments have also been considered in this time. Where necessary, these applications were accompanied by AA Screening Reports, or Natura Impact Statements.

The proposed development will have no cumulative impacts upon any designated sites when considered in combination with other developments that have been screened properly for AA (Stage I) or where AA has taken place (Stage II). Any future individual application that has the potential to impact upon a Natura 2000 site will be subject to Appropriate Assessment as required under Articles 6(3) of the Habitats Directive.

**Duration of construction, operation, decommissioning etc:** Once construction begins, it should be complete within three months.

#### Describe any likely changes to the nearby Natura 2000 sites arising as a result of:

**Reduction of habitat area:** The proposed development lies outside the boundaries of the Natura 2000 sites identified in Section 3.3. There will be no reduction of designated habitat area within the Lower River Shannon SAC or the River Shannon and River Fergus Estuaries SPA. There will be no significant effects upon the habitat qualifying interests of the Lower River Shannon SAC. There will be no interference with the boundaries of the Lower River Shannon SAC or the River Shannon and River Fergus Estuaries SPA.

**Disturbance to key species:** There will be no disturbance to the species listed as Qualifying Interests of the Lower River Shannon SAC or the River Shannon and River Fergus Estuaries SPA. The application site does not contain any ex-situ habitats for the species listed as QIs of either of these sites.

**Habitat or species fragmentation:** There will be no habitat or species fragmentation within the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA. No ecological corridors between the proposed site and the Natura 2000 sites identified will be damaged or destroyed.

**Reduction in species density:** There will be no reduction in species density within the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA

**Changes in key indicators of conservation value (water quality etc.):** There will be no negative impacts upon surface or ground water quality within the Lower River Shannon SAC and the River Shannon and River Fergus Estuaries SPA. There will be no negative impacts upon the water quality in any designated site.

**Describe any likely impacts on the nearby Natura 2000 sites as a whole in terms of:**

**Interference with the key relationships that define the structure or function of the site:** It is not considered likely that there will be any impacts on the key relationships that define the structure or function of the Natura 2000 sites identified.

**Provide indicators of significance as a result of the identification of effects set out above in terms of:**

**Loss** - Estimated percentage of lost area of habitat: None

**Fragmentation:** None

**Disruption & disturbance:** None

**Change to key elements of the site** (e.g. water quality etc.): None

### 3.5 FINDING OF NO SIGNIFICANT EFFECTS

Finding of No Significant Effects Report Matrix	
<b>Name of project</b>	Construction of new cycle route from St Nessans Road to Bishop's Quay via the South Circular Road and Henry St in Limerick City
<b>Name and location of Natura 2000 site</b>	There are eight Natura 2000 sites within 15km of the application site. The closest of these include the Lower River Shannon SAC (38m at Bishops Quay) and the River Shannon and River Fergus Estuaries SPA (51m at Bishops Quay).
<b>Description of project</b>	A Small Scale Amenity / Cycling Safety Development
<b>Is the project directly connected with or necessary to the management of the site?</b>	No
<b>Are there other projects or plans that together with project being assessed could affect the site?</b>	No
The Assessment of Significance of Effects	
<b>Describe how the project is likely to affect the Natura 2000 site</b>	Having regard to the location, nature and scale of the proposed development, it is considered that there is no potential for significant effects either from the proposed development on its own or in combination with other plans and projects.
<b>Explain why these effects are not considered significant</b>	Not applicable as there is no potential for negative impacts
<b>Describe how the project is likely to affect species designated under Annex II of the Habitats Directive.</b>	No impacts likely
Data Collected to Carry out the Assessment	
<b>Who carried out the assessment</b>	Noreen McLoughlin, MSC, MCIEEM. Consultant Ecologist
<b>Sources of data</b>	NPWS, EPA, National Biodiversity Data Centre, Limerick City and County Council
<b>Level of assessment completed</b>	Stage1 Appropriate Assessment Screening
<b>Where can the full results of the assessment be accessed and viewed</b>	Full results included

## 4 APPROPRIATE ASSESSMENT CONCLUSION

In accordance with Article 6(3) of the Habitats Directive, the relevant case law, established best practice and the precautionary principle, this AA Screening Report has examined the details of the project in relation to the relevant Natura 2000 sites within 15km of the application site.

At this stage of the AA process, it is for the competent authority, i.e., Limerick City and County Council, to carry out the screening for AA and to reach one of the following determinations:

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

It is of the opinion of the author that an AA of the proposed development is not required as significant effects upon all designated sites identified within 15km can be ruled out.



Noreen McLoughlin, MSc, MCIEM.  
Ecologist.

(PI Insurance details available on request)