



Canal Bridge Project

Screening for Appropriate Assessment

21st January 2021

Mott MacDonald
5 Eastgate Avenue
Eastgate
Little Island
Co Cork T45 EE72
Ireland

T +353 (0)21 480 9800
mottmac.com

Canal Bridge Project

Screening for Appropriate Assessment

21st January 2021

Directors: J T Murphy BE HDipMM CEng
FIEI FConsEI FIAE (Managing), D Herlihy
BE MSc CEng, R Jefferson BSc MScS
MRICS MCI Arb DipConLaw, J Shinkwin
BE DipMechEng CEng MIEI, M D Haigh
BSc CEng FICE MCIWEM (British)
Innealtóirí Comhairleach (Consulting
Engineers)
Company Secretary: Michael Cremin CPA
Registered in Ireland no. 53280.
Mott MacDonald Ireland Limited is a
member of the Mott MacDonald Group

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
A	15 th June 2020	N. Lynch	R. Mansfield	J. Murphy	Draft Issue
B	19 th Jan 2021	E. Johnston	B. Benatt	B. Williams	Final Issue

Document reference: | | 229100314-024-B

Information class: Standard

This document is issued for the party which commissioned it and for specific purposes connected with the above-captioned project only. It should not be relied upon by any other party or used for any other purpose.

We accept no responsibility for the consequences of this document being relied upon by any other party, or being used for any other purpose, or containing any error or omission which is due to an error or omission in data supplied to us by other parties.

This document contains confidential information and proprietary intellectual property. It should not be shown to other parties without consent from us and from the party which commissioned it.

Contents

1	Introduction	1
1.1	Context	1
1.2	Requirement for Appropriate Assessment	1
2	Project Description	3
2.1	Project Location	3
2.2	Project Overview	3
2.3	Potential for Impacts Associated with the Proposed Development	4
3	Proximity to European Sites	5
4	Assessment of Significant Effects	8
5	Screening Statement	9
6	References	11

Tables

Table 3.1:	Qualifying Interests Associated with Lower River Shannon SAC	6
Table 3.3:	Special Conservation Interests of the River Fergus and River Shannon Estuaries SPA	7
Table 5.1:	Screening Statement	9

1 Introduction

1.1 Context

Limerick City and County Council proposes the construction of a new bridge crossing of the Park Canal, in Limerick to improve the pedestrian, cyclist and vehicle crossing facilities of the canal.

There is an existing bridge crossing of the canal which is a single span bridge constructed circa 1760 and improved in the 1960's by upgrading to steel-concrete composite deck. The existing bridge is narrow, allowing only a single vehicle to cross in either direction at any one time. The existing bridge is a shared crossing for pedestrian, cyclist and vehicular movements. This current arrangement has limited capacity and the separation of vehicular traffic from pedestrians is sought.

The proposed new bridge will improve the existing pedestrian and cyclist provision across the Canal and increase safety through a dedicated crossing for pedestrians and cyclists.

Further details on the proposed project are presented in Section 2.

1.2 Requirement for Appropriate Assessment

Article 6 of the Habitats Directive (92/43/EEC) requires that where a plan or project is likely to have a significant effect on a European site, while not directly connected with or necessary to the nature conservation management of the site, it will be subject to 'Appropriate Assessment' to identify any implications for the European site in view of the site's Conservation Objectives. Specifically, Article 6(3) of the Habitats Directive states:

“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”.

Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 437 of 2011) (as amended) transposes Article 6 of the Habitats Directive into Irish law. The regulations require that before consent for a project is given, a screening for Appropriate Assessment of a project must be carried out by the public authority to assess, in view of best scientific knowledge and in view of the conservation objectives of the site, if that project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.

The Project is not associated with the 'management' of a European Site having regard to Article 6 of the Habitats Directive. Therefore, the Project is not directly connected with or necessary to the management of any European Site and must undergo screening for Appropriate Assessment in accordance with Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations 2011

This this report has been prepared by Mott MacDonald on behalf of Limerick City and County Council to inform their screening determination required under Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended).

This report has been prepared in accordance with the following European Commission Guidance:

- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice C (2018) 7621
- EC (2001) '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'
- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010).

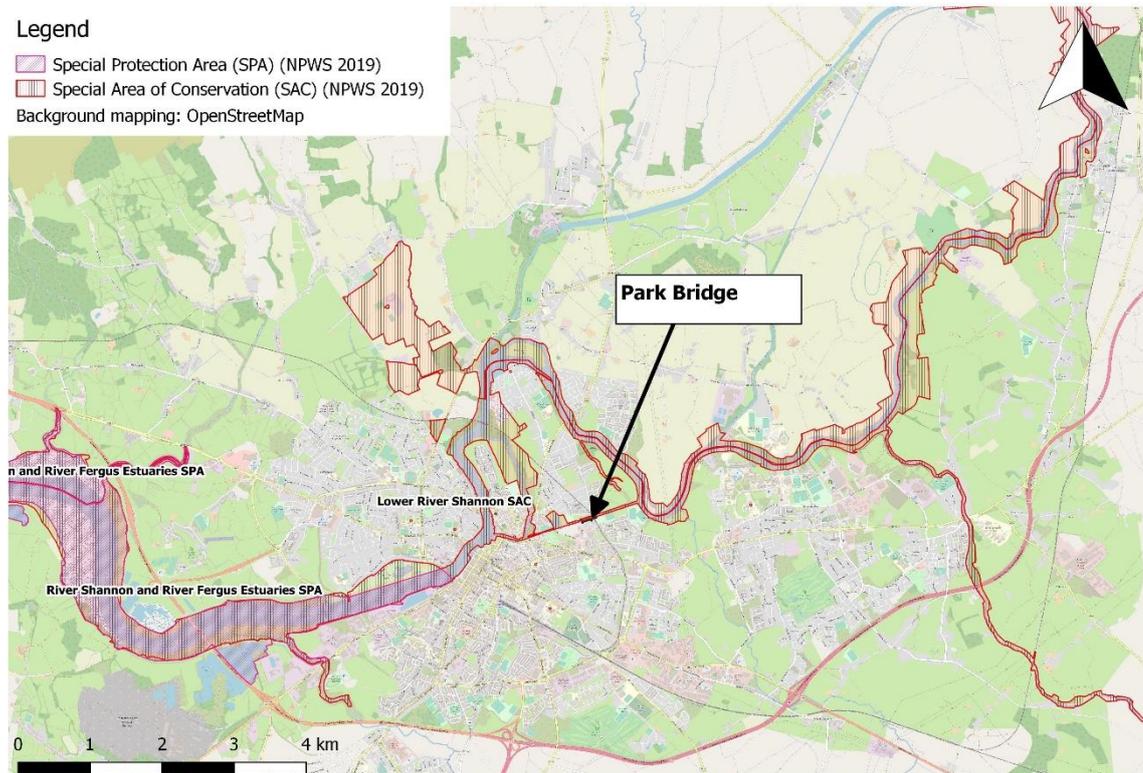
This report has similarly been prepared with regard to relevant rulings by the Court of Justice of the European Union (CJEU), the High Court, and the Supreme Court.

2 Project Description

2.1 Project Location

Park Bridge is a single span masonry arch bridge which carries a local road over Park Canal in Limerick City. Park Bridge is located within the Lower River Shannon SAC. The location is detailed in Figure 1.

Figure 1: Location of Park Bridge



2.2 Project Overview

The proposed new bridge crossing of the Park Canal is proposed to be located upstream of the existing Park Bridge and downstream of the existing railway bridge crossing (Irish Rail bridge – UBE6).

The proposed new bridge will connect Lower Park Road with Canal Bank facilitating two-way traffic flow. Vehicle traffic on Canal Bank will change from the current one-way system to a two-way system with the carriageway being widened accordingly. The existing Park Road Bridge will be retained as a pedestrian and cycle facility only, and the existing traffic lights at this location will be removed.

The proposed development will consist of the following;

- New 12m wide bridge providing one-way flow of traffic under traffic signal control with controlled crossing and shared cycle/pedestrian pathway providing segregated north and southbound travel;

- Park Bridge and North Canal Road will provide a dedicated pedestrian/cycle route; local vehicular access only will be provided along North Canal Road;
- Removal of traffic lights at Park Bridge;
- Widening of South Canal Bank and provision of one way vehicular traffic flow under lights, replacing existing one-way system;
- Demolition of existing buildings along South Bank Road to allow for junction widening at the corner of South Canal Road and Park Road and provision of new boundary property wall;
- New road and pedestrian/cycle path surfacing, LED lighting along pedestrian/cycle path along South Canal Road to Lower Park Road; and
- Surface water drainage will be directed into the existing system with the addition of an attenuation tank.

2.3 Potential for Impacts Associated with the Proposed Development

There is potential for the following impacts associated with the construction phase of the proposed development:

- Direct impact to habitats within the footprint of the works
- Dust emissions
- Noise and vibration emissions
- Lighting
- Surface water run-off

3 Proximity to European Sites

The source-pathway-receptor connectivity between European Sites and the proposed new canal crossing near Park Bridge and repair works to the existing bridge was investigated using GIS software, and through examination of aerial photography to determine likely pathways of connection including ecological corridors and stepping stones.

Any European Sites identified to have a viable source-pathway-receptor connection to the proposed works were then examined further to determine the potential for significant effects.

Park bridge is within the Lower River Shannon SAC (002165). As the works will take place within the boundary of the SAC a source-pathway-receptor link to the SAC is identified.

The River Shannon and River Fergus Estuaries SPA is located approximately 2km to the west of the proposed works. The canal connects to the River Shannon, which flows into the SPA. Hydrological connectivity is present between the canal and the SPA via the River Shannon. Additionally, there is ecological connectivity between the canal and the SPA. Given the location of Park Bridge in relation to the SPA there will be no direct damage to the habitat which supports the qualifying features of the SPA. There is potential, however for impact to *ex situ* Special Conservation Interests associated with the SPA.

No viable source pathway receptor links were identified to any other European sites.

Characteristics of European Sites

Lower River Shannon SAC (002165)

The site synopsis describes the Lower River Shannon SAC (002165) as follows:

“This very large site stretches along the Shannon valley from Killaloe in Co. Clare to Loop Head/Kerry Head, a distance of some 120 km. The site thus encompasses the Shannon, Feale, Mulkear and Fergus estuaries, the freshwater lower reaches of the River Shannon (between Killaloe and Limerick), the freshwater stretches of much of the Feale and Mulkear catchments and the marine area between Loop Head and Kerry Head. Rivers within the sub-catchment of the Feale include the Galey, Smearlagh, Oolagh, Allaughaun, Owveg, Clydagh, Caher, Breanagh and Glenacarne. Rivers within the sub-catchment of the Mulkear include the Killeenagarraff, Annagh, Newport, the Dead River, the Bilboa, Glashacloonaraveela, Gortnageragh and Cahernahallia.”

The qualifying interests for which the Lower River Shannon SAC is designated for are presented below in Table 3.1.

Table 3.1: Qualifying Interests Associated with Lower River Shannon SAC

Qualifying Interests (* Indicates priority habitats)	
Annex I Habitats	Annex II Species
Sandbanks which are slightly covered by sea water all the time [1110]	<i>Margaritifera margaritifera</i> (Freshwater Pearl Mussel) [1029]
Estuaries [1130]	<i>Petromyzon marinus</i> (Sea Lamprey) [1095]
Mudflats and sandflats not covered by seawater at low tide [1140]	<i>Lampetra planeri</i> (Brook Lamprey) [1096]
Coastal lagoons [1150]	<i>Lampetra fluviatilis</i> (River Lamprey) [1099]
Large shallow inlets and bays [1160]	<i>Salmo salar</i> (Salmon) [1106]
Reefs [1170]	<i>Tursiops truncatus</i> (Common Bottlenose Dolphin) [1349]
Perennial vegetation of stony banks [1220]	<i>Lutra lutra</i> (Otter) [1355]
Vegetated sea cliffs of the Atlantic and Baltic coasts [1230]	
Salicornia and other annuals colonising mud and sand [1310]	
Atlantic salt meadows (<i>Glauco-Puccinellietalia maritimae</i>) [1330]	
Mediterranean salt meadows (<i>Juncetalia maritim</i>) [1410]	
Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation [3260]	
Molinia meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>) [6410]	
Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i> , <i>Alnion incanae</i> , <i>Salicion albae</i>) [91E0]	

River Fergus and River Shannon Estuaries SPA

The site synopsis for the River Fergus and River Shannon Estuaries SPA notes the following about the site:

“The estuaries of the River Shannon and River Fergus form the largest estuarine complex in Ireland. The site comprises the entire estuarine habitat from Limerick City westwards as far as Doonaha in Co. Clare and Dooneen Point in Co. Kerry. The site has vast expanses of intertidal flats which contain a diverse macroinvertebrate community, e.g. Macoma-Scrobicularia-Nereis, which provides a rich food resource for the wintering birds. Salt marsh vegetation frequently fringes the mudflats and this provides important high tide roost areas for the wintering birds. Elsewhere in the site the shoreline comprises stony or shingle beaches.”

The Special Conservation interests for which the River Fergus and River Shannon Estuaries SPA is designated for are presented below in **Table 3.2**

Table 3.2: Special Conservation Interests of the River Fergus and River Shannon Estuaries SPA

Special Conservation Interests as Outlined in NPWS

Cormorant (<i>Phalacrocorax carbo</i>) [A017]
Whooper Swan (<i>Cygnus cygnus</i>) [A038]
Light-bellied Brent Goose (<i>Branta bernicla hrota</i>) [A046]
Shelduck (<i>Tadorna tadorna</i>) [A048]
Wigeon (<i>Anas penelope</i>) [A050]
Teal (<i>Anas crecca</i>) [A052]
Pintail (<i>Anas acuta</i>) [A054]
Shoveler (<i>Anas clypeata</i>) [A056]
Scaup (<i>Aythya marila</i>) [A062]
Ringed Plover (<i>Charadrius hiaticula</i>) [A137]
Golden Plover (<i>Pluvialis apricaria</i>) [A140]
Grey Plover (<i>Pluvialis squatarola</i>) [A141]
Lapwing (<i>Vanellus vanellus</i>) [A142]
Knot (<i>Calidris canutus</i>) [A143]
Dunlin (<i>Calidris alpina</i>) [A149]
Black-tailed Godwit (<i>Limosa limosa</i>) [A156]
Bar-tailed Godwit (<i>Limosa lapponica</i>) [A157]
Curlew (<i>Numenius arquata</i>) [A160]
Redshank (<i>Tringa totanus</i>) [A162]
Greenshank (<i>Tringa nebularia</i>) [A164]
Black-headed Gull (<i>Chroicocephalus ridibundus</i>) [A179]
Wetland and Waterbirds [A999]

4 Assessment of Significant Effects

The Park Canal is part of the Lower River Shannon SAC (002165). The construction of the proposed new bridge crossing and associated local road improvements may require works on the bank of the canal within or in close proximity to the SAC boundary. There is potential, therefore, for direct impacts to Qualifying Interests associated with the Lower River Shannon SAC.

The proposed bridge crossing is also located ca. 2km (hydrological route) east of the River Shannon and River Fergus Estuaries SPA (004077) (see Figure 1) with direct downstream hydrological and ecological connectivity. Given these source-pathway-receptor links with the European site there is potential for impact to Special Conservation interests associated with the River Fergus and River Shannon Estuaries SPA.

5 Screening Statement

The current assessment investigates the potential for significant effects on the qualifying interests of the Lower Shannon SAC (002165) and Shannon and River Fergus and River Shannon Estuaries SPA (004077) arising from the proposed new bridge crossing of the Park Canal. The assessment considers whether the proposed project, either alone or in combination with other projects or plans, will have a significant effect on the European sites.

Having regard to the precautionary principle, it is concluded that there is potential for significant effects on the Lower Shannon SAC (002165) and the River Shannon and River Fergus Estuaries SPA (004077) from the proposed works either alone or in combination with other plans and/or projects. The findings of this report for screening for Appropriate Assessment are summarised in the Findings of Significant Effects Matrix.

Table 5.1: Screening Statement

Name of project or plan	Park Bridge
Project Plan	
Description of the project or plan	<ul style="list-style-type: none"> ● New 12m wide bridge providing one-way flow of traffic under traffic signal control with controlled crossing and shared cycle/pedestrian pathway providing segregated north and southbound travel; ● 2Park Bridge and North Canal Road will provide a dedicated pedestrian/cycle route; local vehicular access only will be provided along North Canal Road; ● Removal of traffic lights at Park Bridge; ● Widening of South Canal Bank and provision of two-way vehicular traffic flow, replacing existing one-way system; ● Demolition of existing buildings along South Bank Road to allow for junction widening at the corner of South Canal Road and Park Road and provision of new boundary property wall; ● New road and pedestrian/cyclepath surfacing, LED lighting along pedestrian/cyclepath along South Canal Road to Lower Park Road; and ● Surface water drainage will be directed into the existing system with the addition of an attenuation tank
Natura 2000 Site	
Brief Description of the Natura 2000 Site(s)	<p>The proposed development is within the boundary of the (Lower Shannon SAC (002165)</p> <p>It is also approximately 2km upstream of the River Shannon and River Fergus Estuaries SPA (004077)</p>
Assessment Criteria	
Describe how the project or plan (alone or in combination) is likely to give rise to impacts on the Natura 2000 site.	Construction of the bridge could give rise to direct impact and environmental pollution causing significant effects to SCIs/QIs associated with the European sites
Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the Natura 2000 site by virtue of; Size and scale:	Bridge construction will require in-stream works within the Park Canal, which is part of the Lower River Shannon SAC and is hydrologically connected to the River Shannon and River Fergus Estuaries SPA. The construction works have potential to result in species disturbance / habitat damage or degradation.

<p>Land take: Distance from the Natura 2000 site or key features of the site; Resource requirements (water abstraction etc); Emissions (disposal to land, water or air); Excavation requirements; Transportation requirements; Duration of construction, operation, decommissioning etc; Other.</p>	
<p>Describe any likely changes to the site arising as a result of: Reduction in 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.</p>	<p>There is potential for</p> <ul style="list-style-type: none"> ● Reduction in habitat area where they occur within the footprint of the works ● Disturbance of wintering bird species and otter ● Reduction in species density should QIs/SCIs occur within the footprint of the works ● Changes in water quality associated with surface water run-off
<p>Describe any likely impacts on the Natura 2000 site as a whole in terms of: Interference with the key relationships that define the structure of the site; Interference with key relationships that define the function of the site.</p>	<p>Effects that have been identified associated with the works have the potential to result in a degradation of habitats within European sites, and a degradation/loss of supporting habitat associated with <i>ex-situ</i> Qualifying Features of European sites.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of: Loss; Fragmentation; Disruption; Disturbance; Change to key elements of the site.</p>	<p>Indicators of significance are:</p> <ul style="list-style-type: none"> ● Direct loss or fragmentation protected and supporting habitat ● Reduction in protected and supporting habitat quality or area as may be caused by a change in water quality ● Disturbance of <i>ex situ</i> Qualifying Interests/Special Conservation Interests ● A reduction in population density of Qualifying Interests/Special Conservation Interests
<p>Describe from the above those elements of the project or plan, or combination of elements, where the above impacts are likely to be significant or where the scale or magnitude of impacts is not known.</p>	<p>Impacts associated with emissions caused by the construction phase of the works have the potential to result in significant effects to European sites.</p>
<p>Data collected to carry out the assessment</p>	
<p>Who carried out the assessment?</p>	<p>Noreen Lynch, Erin Johnston</p>
<p>Sources of data?</p>	<p>Please refer to the reference list.</p>
<p>Level of assessment?</p>	<p>Desktop.</p>

6 References

- Cutts. N., Hemingway K., & Spencer J., (2013) Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects Version 3.2. Institute of Estuarine & Coastal Studies (IECS), University of Hull.
- DEHLG (2009) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities (Revised 2010).
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC Commission Notice C (2018) 7621
- EC (2001) ‘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’
- NPWS (2012) Conservation Objectives: Lower River Shannon SAC 002165. Version 1.0. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013) Site Synopsis: Lower River Shannon SAC 002165. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2012) Conservation Objectives: River Shannon and River Fergus Estuaries SPA 004077. Version 1.0 National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2015) Site Synopsis: River Shannon and River Fergus Estuaries SPA 004077. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2012) River Shannon & River Fergus Estuaries Special Protection Area 004077 Conservation Objectives Supporting Document Version 1.0 National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

