



Tionscadal Éireann  
Project Ireland  
**2040**

# N21 WARDS CROSS ROAD IMPROVEMENT SCHEME



Comhairle Cathrach  
& Contae **Luimnigh**

**Limerick** City  
& County Council

## APPROPRIATE ASSESSMENT

### STAGE 1: SCREENING

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**NOVEMBER 2020**

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An Roinn Iompair  
Department of Transport



Mid West  
National Road Design Office

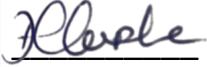
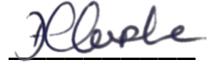
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Mid West  
National Road Design Office

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## 1 INTRODUCTION

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Wards Cross is a junction with the local road L7091 and the N21 mainline. The junction is in County Limerick, on the N21, approximately one kilometre east of the town of Abbeyfeale, see Figure 1 below. The site is rural in nature with several private dwellings located adjacent to the existing junction. The L7091 road which forms the junction with the N21 has falling gradient towards the mainline. The project subject site extends for approximately 200m either side of Wards Cross junction.

The proposed scheme is located approximately 335 metres to the south of the Lower River Shannon SAC (002165).

The Mid West National Road Design Office, on behalf of Limerick City & County Council has prepared this screening assessment report to determine the need for an Appropriate Assessment. This screening assessment report forms Stage 1 of the Habitat Directive assessment process. The purpose of this screening assessment report is to identify the potential for the proposed scheme to result in significant effects on nearby European Sites and to provide information to enable the competent authority to determine whether this scheme is required to progress to Stage 2 of the Appropriate Assessment Process.

### 1.1 LEGISLATIVE CONTEXT

The obligation to undertake appropriate assessments derives from Article 6(3) and 6(4) of the EU Habitats Directive (92/43/EEC), which is transposed into Irish law by the European Communities (Birds and Natural Habitats) Regulations 2011.

Regulation 42(1) of the European Communities (Birds and Natural Habitats) Regulations, 2011, states:

'A screening for Appropriate Assessment of a plan or project for which an application for consent is received, or which a public authority wishes to undertake or adopt, and which is not directly connected with or necessary to the management of the site as a European Site, shall 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 plan or project, individually or in combination with other plans or projects is likely to have a significant effect on the European site.'

### 1.2 SCREENING METHOD

This Appropriate Assessment Screening Report has been prepared in accordance with the following guidance:

- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2009.
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) of the Habitats Directive 92/43/EEC. European Commission Environment DG, 2002.
- Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission, 2000.

The screening report follows the following European Commission guidance and steps for completing a Stage 1 Screening for the need for an Appropriate Assessment:

- Determining whether the project or plan is directly connected with or necessary to the management of the site.
- Describing the project or plan and the description and characterisation of other projects or plans that in combination have the potential for having significant effects on the Natura 2000 site.
- Identifying the potential effects on the Natura 2000 site.
- Assessing the significance of any effects on the Natura 2000 site.

### 1.3 DESCRIPTION OF THE PROPOSED WORKS

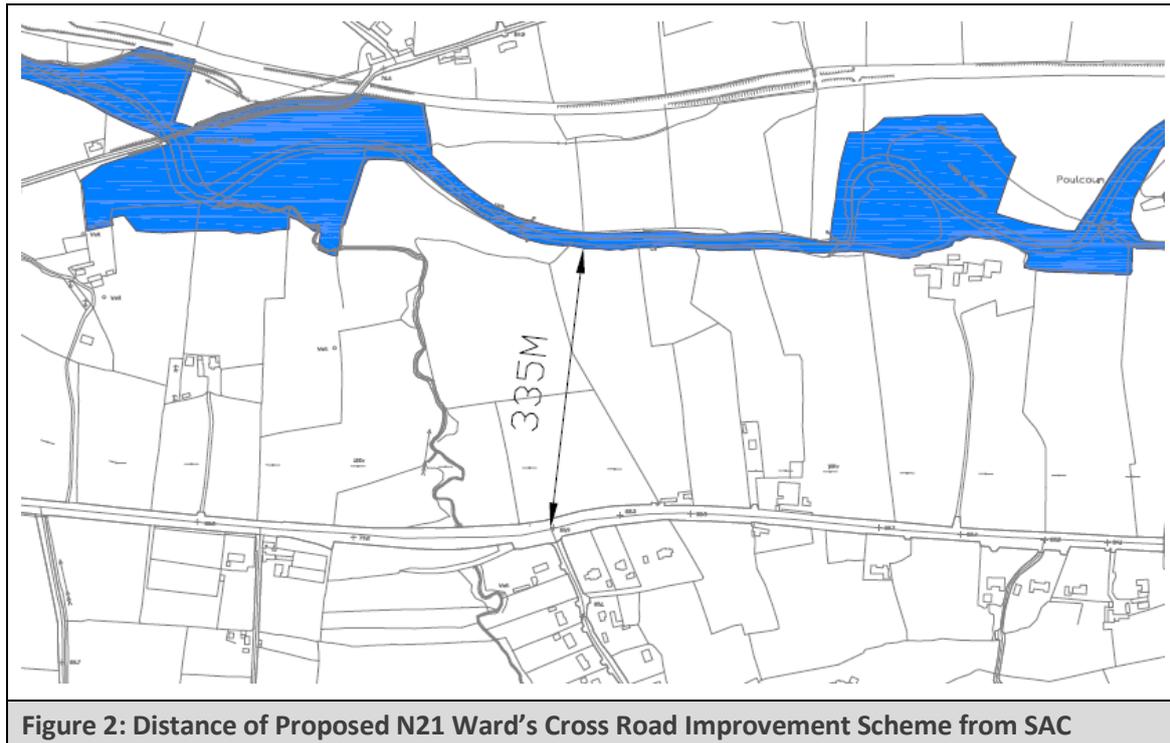
Transport Infrastructure Ireland (TII) highlighted Ward's Cross, the junction of the N21 with the local road L7091, as a high collision location under its Network Safety Analysis of the national road network.

The purpose of this road improvement scheme is to reduce the number of collisions at this location by altering the layout of the junction. The scheme commences approximately 250m east of the N21/L7091 junction and extends approximately 200m to the west along the N21.

The proposed scheme consists of small-scale roadworks; widening the existing N21 carriageway to the north of the existing carriageway to provide a right turn lane at the N21/L7091 Ward's Cross junction. The proposed works will also include new road markings and the installation of road drainage along the scheme extents. The proposed works in this scheme will take place north of the N21/L7091 and it is necessary to acquire land north of the N21/L7091 junction. The works will take place approximately 335m south of the *Lower River Shannon SAC (002165)*, as shown in Figure 2 below.



Figure 1: Location of Proposed N21 Ward's Cross Road Improvement Scheme



**Figure 2: Distance of Proposed N21 Ward's Cross Road Improvement Scheme from SAC**

#### 1.4 SURFACE WATER DRAINAGE

There is no existing dedicated surface or subsurface drainage infrastructure for the collection and conveyance of surface water for this section of the N21. On the westbound verge, over time a 'false kerb' has developed which conveys longitudinally the majority of the runoff down the edge of the pavement towards the junction, which subsequently causes ponding at the junction.

It is proposed to provide filter drains to collect and convey surface/sub-surface water to the outfall. The drainage system will discharge via a petrol interceptor to the Dromtrasna River. Treatment of the surface water will be aided using the filter drains. This will be an improvement on the existing scenario. The pipe network will collect the surface runoff, capturing and collecting the carriageway residues and surface grit emanating from vehicular traffic and preventing any potential environmental effects through the installation of standard engineering solutions such as gullies, catchpits, pipe attenuation and petrol interceptors.

#### 1.5 PLANT AND CONSTRUCTION MATERIAL

The following is a list of typical road construction plant and machinery required works of this kind. The type, size and quantity of the named plant and machinery may be amended following the appointment of a contractor for the proposed works contract.

- 360 degree 20 tonne Excavators (track machines)
- Rubber tyred Excavators 6t JCB
- 3t Mini Digger
- 6t Dumpers
- 7.5 tonne multi-purpose truck
- Road Sweeper
- Bitumen Boiler/Hot Box
- Road Planing Machine
- Extruded Kerb Laying Machine
- Road Saws/Con Saws/Chain saws

- Paving Machine
- Site Vehicles
- Compactor plates
- 6t vibrating rollers
- 10t rollers
- 20 tonne/30 tonne delivery trucks (importation of rock and bituminous paving materials)
- Compressors
- Jack Hammers
- Small tools/hand tools
- Traffic Management Signs, Cones & Barriers
- Traffic Lights

The works contract documents will include the requirement for the appointed contractor to inspect all plant, machinery and equipment daily and certify all to be free of leaks and weeps prior to mobilisation and use on site.

### **1.6 WORKS DURATION**

It is expected that the proposed works will be completed within a 4-month timeframe.

### **1.7 CONSTRUCTION COMPOUND**

It is not envisaged that a site compound will be required for the proposed works. All material required to complete the works will be transported onto site as and when required. Likewise, any waste material removed from site will be removed immediately and not stored on site. If the appointed contractor requires a compound near the works area then it shall be located at such a point where there is no risk of impacting the nearby Natura 2000 sites. The contractor will be required to complete an additional AA screening report for the proposed location of the site compound.

## 2 BASELINE ECOLOGY AT SCHEME LOCATION

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### 2.1 HABITATS

The following is a list of habitats, as categorised in 'A Guide to Habitats in Ireland, Fossitt (2000)', which were found at and/or adjacent to the scheme location, during a site visit in July 2020:

- **Grassy Verge (GS2):**  
A grassy verge habitat occurs along both sides of the N21. The density of the grassy verge is almost insignificant within the proposed road widening footprint, along the north side of the N21 at the N21/L7091 Ward's Cross junction
- **Hedgerows (WL1):**  
An overgrown strip of shrubs, which is classified as a Hedgerow (WL1), defines the field boundary. The Hedgerow (WL1) runs parallel to the N21 to the north of the N21/L7091 Ward's Cross junction. Shrubs such as Bramble (*Rubus fruticosus* agg), Blackthorn (*Prunus Spinosa*), Hawthorn (*Crataegus monogyna*) and climbing plants such as Ivy (*Hedera helix*) were recorded growing in the Hedgerow, which forms part of the field boundary within the extents of the scheme.
- **Buildings & Artificial Surfaces (BL3):**  
The scheme extents includes a two-lane paved carriageway of the N21 and part of the paved L7091 local road. A modern build mortar stone wall, is located along the south west side of the L7091 within the extent of the scheme, and forms a residential boundary. The paved carriageway and the stone boundary wall are classified as Buildings & Artificial Surfaces (BL3).



Figure 3: N21/L7091 Ward's Cross Junction.

## **2.2 FAUNA**

Following the completion of the onsite visit in July 2020, it was noted that there was no signs of breeding or resting places for protected ground dwelling mammals. The scheme extent does not affect any area of trees or any potential habitat area that could be a roosting site for bats. Hedgerow (WL1) habitats are a potential breeding and nesting group for birds and wildlife.

## **2.3 IS THE PROJECT OR PLAN DIRECTLY CONNECTED WITH OR NECESSARY FOR THE MANAGEMENT OF THE SITE**

The proposed scheme is not directly connected with or necessary for the management of any European Sites.

### 3 EUROPEAN SITES

#### 3.1 IDENTIFY EUROPEAN SITES LIKELY TO BE INFLUENCED BY THE PROJECT

Current guidance on undertaking EU Habitats Directive Article 6 Assessments advises that all European Sites occurring within a 15km radius of a project site should be included within a screening assessment. Special Area of Conservations (SAC) sites located within a 15km distance of the proposed scheme are shown in Figure 4 below. Special Protection Area (SPA) sites located within a 15km distance of the proposed scheme are shown in Figure 5 below.

The guidelines go on to state that for certain projects this distance could be much less than 15km, and in some cases less than 100m, but this must be evaluated on a case-by-case basis with reference to the nature, size and location of the project, and the sensitivities of the ecological receptors, and the potential for in combination effects.

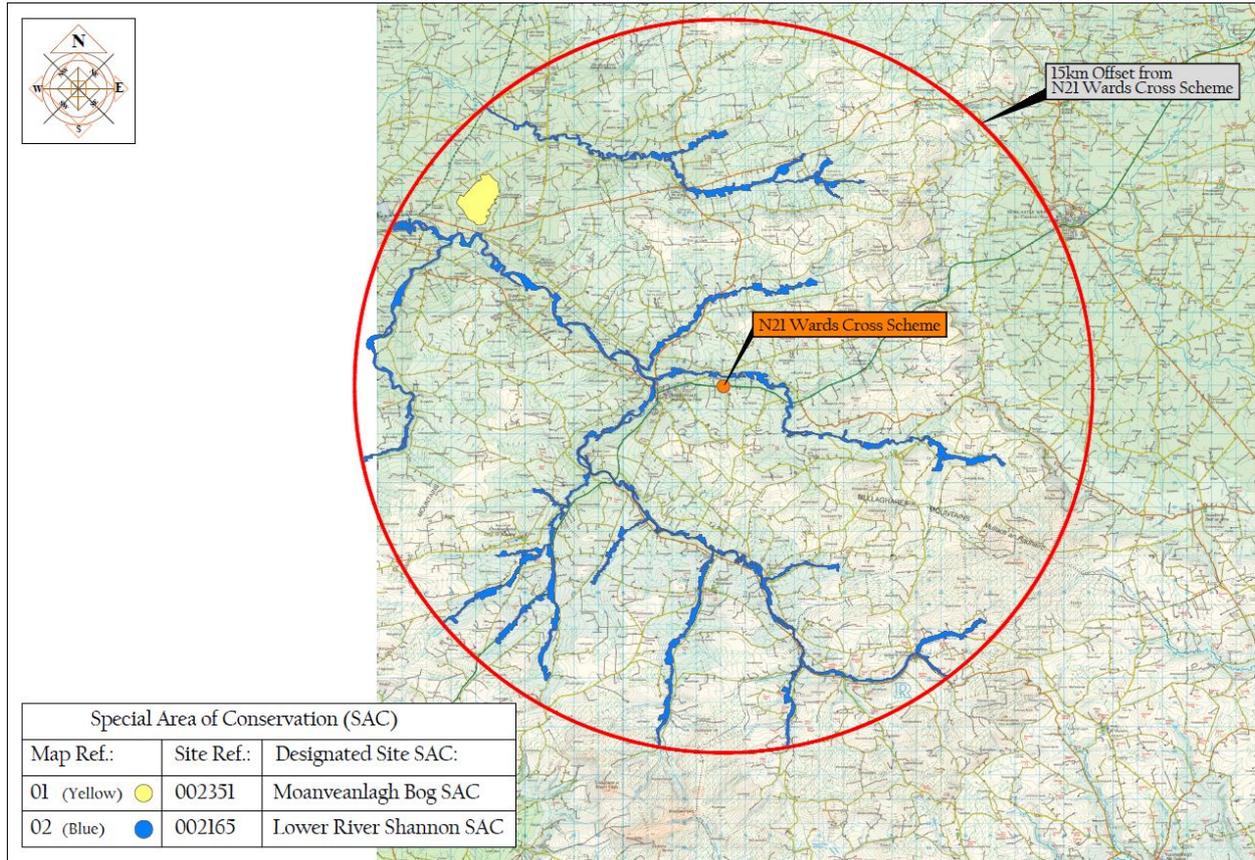
The proposed works, as described in Section 1.3 of this report, will occupy a very small footprint of agricultural land. European Sites have been identified within a 15 km radius of the works:

European Site of Interest	Distance from Project Site
Moanveanlagh Bog SAC (002351)	12 Km to the North-West of the proposed works
Lower River Shannon SAC (002165)	335 metres to the North of the proposed works
Stack's to Mullaghareirk Mountains, West Limerick Hills and Mount Eagle SPA (004077)	3 Km to the North-East of the proposed works

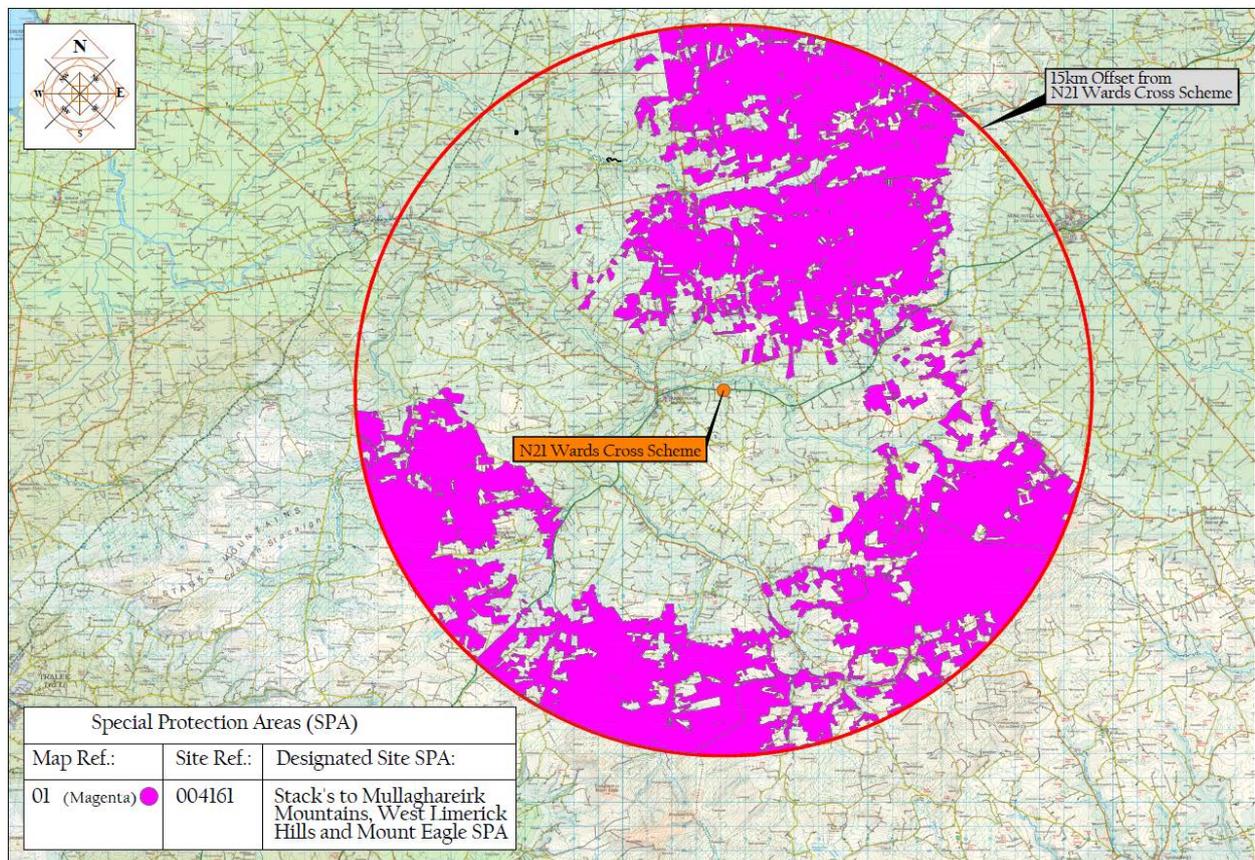
**Table 1: List of SAC & SPA Sites within 15km Distance of Proposed Works**

The Lower River Shannon SAC (002165) is the closest European Site located at a distance of approximately 335m from the proposed scheme. Therefore, in this case, the screening assessment will focus on The Lower River Shannon SAC (002165).

All other European Sites are located at a remote distance from the project site (see Figure 4 and Figure 5 below), are not connected to the project site via any impact pathways. The distance between the proposed scheme and the absence of any potential impact pathways connecting the proposed scheme to these other European Sites validates that they are located outside the zone of influence of the project.



**Figure 4: SAC Sites Located within 15km Distance of Proposed Works**



**Figure 5: SPA Sites Located within 15km Distance of Proposed Works**

### 3.2 LOWER RIVER SHANNON SAC

The qualifying features of interest of the Lower River Shannon SAC are listed in Table 2 below.

<b>Qualifying Interests for the Lower River Shannon SAC (002165)</b> (* denotes a priority habitat)
<p><b>Habitats</b></p> <p>1110 Sandbanks which are slightly covered by sea water all the time</p> <p>1130 Estuaries</p> <p>1140 Mudflats and sandflats not covered by seawater at low tide</p> <p>1150 Coastal lagoons*</p> <p>1160 Large shallow inlets and bays</p> <p>1170 Reefs</p> <p>1220 Perennial vegetation of stony banks</p> <p>1230 Vegetated sea cliffs of the Atlantic and Baltic coasts</p> <p>1310 Salicornia and other annuals colonising mud and sand</p> <p>1330 Atlantic salt meadows (<i>Glauco-Puccinellietalia maritima</i>)</p> <p>1410 Mediterranean salt meadows (<i>Juncetalia maritimi</i>)</p> <p>3260 Water courses of plain to montane levels with the <i>Ranunculion fluitantis</i> and <i>Callitriche-Batrachion</i> vegetation</p> <p>6410 <i>Molinia</i> meadows on calcareous, peaty or clayey-silt-laden soils (<i>Molinion caeruleae</i>)</p> <p>91E0 Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (<i>Alno-Padion</i>, <i>Alnion incanae</i>, <i>Salicion albae</i>)*</p> <p><b>Species</b></p> <p>1029 Freshwater Pearl Mussel (<i>Margaritifera margaritifera</i>)</p> <p>1099 River Lamprey (<i>Lampetra fluviatilis</i>)</p> <p>1349 Common Bottlenose Dolphin (<i>Tursiops truncatus</i>)</p> <p>1355 Otter (<i>Lutra lutra</i>)</p> <p>1096 Brook Lamprey (<i>Lampetra planeri</i>)</p> <p>1095 Sea Lamprey (<i>Petromyzon marinus</i>)</p> <p>1106 Salmon (<i>Salmo salar</i>)</p>
<b>Table 2: Qualifying Interests for the Lower River Shannon SAC (002165)</b>

## 4 ASSESSMENT OF POTENTIAL FOR LIKELY SIGNIFICANT EFFECTS

### 4.1 SCREENING ASSESSMENT

Given the small scale of the project and as the scheme location and its site extents is not located within or adjoining the Lower River Shannon SAC (002165) it will not have the potential to result in direct impact to cause physical habitat loss, degradation or disturbance to this European Site. Therefore, the following assessment focused on investigating whether the project will have the potential to result in impacts to this European Site via impact pathways.

The 'Source-Pathway-Receptor' concept was used in assessing the possible impact the proposed works may have on the nearby European Sites. A detailed desktop study and site visit was completed in order to determine any possible pathways connecting the proposed scheme (source) to the Lower River Shannon SAC (002165) (receptor), which may have the potential to transmit contaminants from the works to the special area of conservation. The desktop study and site visit found that there is no direct pathway linking the scheme to the Lower River Shannon SAC (002165). Between the scheme location and the Lower River Shannon SAC there is a large area of agricultural land. This area of land acts as a buffer zone, over a length of 335 metres, between the scheme location and the Lower River Shannon SAC (002165), and does not have the potential to function as an impact pathway that could convey emissions downstream to the Lower River Shannon SAC (002165) from the proposed scheme.

Section 2.1 of this report lists the habitats found within the proposed scheme extents. The scheme works include the removal of the existing Hedgerows (WL1), north of the N21/L7091 Ward's Cross Junction, over a length of approximately 200 metres. The removal of the Hedgerows (WL1) will have an impact on any birds, which may use the Hedgerows (WL1) for nesting. In order to eliminate this risk no hedgerow removal will take place between the 1st of March and the 31st of August as per Section 40 of the Wildlife Acts 1976 to 2012.

### 4.2 POTENTIAL IN-COMBINATION EFFECTS

There are no other projects which are planned, granted or in the process of approval by Limerick City & County Council within the proposed scheme extents.

### 4.3 SCREENING MATRIX

In accordance with European Commission (2001) guidelines, the following screening matrix was prepared.

Screening Matrix	
Brief description of the project or plan	The project and associated activities are described in Section 1.3 above.
Brief description of the European Sites	The European Sites occurring in the wider surrounding area are identified and described in Section 3 above.

Screening Matrix	
<p>Describe the individual elements of the project (either alone or in combination with other plans or projects) likely to give rise to impacts on the European Sites.</p>	<p>Given that, the proposed scheme works is planned for the existing carriageway and the site is not located within or adjoining the Lower River Shannon SAC, it will not have the potential to result in direct impacts in the form of physical habitat loss or disturbance to the European Sites. There is no direct pathway linking the scheme location and its proposed site extents to the Lower River Shannon SAC. Any potential for impact was from surface water runoff from the existing carriageway, along the N21, at the sites location.</p> <p>Between the scheme location and the Lower River Shannon SAC is a large area of agricultural land. This area of land acts as a buffer zone over a length of 335 metres, between the scheme location and the Lower River Shannon SAC, and does not have the potential to function as an impact pathway that could convey emissions to the Lower River Shannon SAC.</p>
<p>Describe any likely direct, indirect or secondary impacts of the project (either alone or in combination with other plans or projects) on the European Sites by virtue of:</p> <ul style="list-style-type: none"> <li>● Size and Scale</li> <li>● Land-take</li> <li>● Distance from Natura 2000 Site or Key Features of the Site</li> <li>● Resource Requirements (Water Abstraction etc.)</li> <li>● Emission (Disposal to Land, Water or Air)</li> <li>● Excavation Requirements</li> <li>● Transportation Requirements</li> <li>● Duration of Construction, Operation, Decommissioning, etc.</li> </ul>	<p>The works are a minor road safety scheme comprising incorporation of a right turn lane on a national road.</p> <p>A small area of land take, grassland and hedgerow, will be acquired for widening the N21 at the Ward's Cross junction. This area of land is agricultural land and is located 335 metres from the Lower River Shannon SAC. There is no land take required at a European Site.</p> <p>The project will not require any resources that are associated with or relied upon by a European Site and its associated features of interest.</p> <p>The proposed scheme and its works does not require any excavation of material from any of the nearby requirements and all construction materials will be transported to site via the existing public road network and will therefore have no effect on the nearby European Sites.</p> <p>The proposed scheme will not result in any increase in the existing traffic volumes during the upgrade works or following construction.</p> <p>The construction works for the project will be completed over a short-term period of approximately 4 months with no hedge clearance between 1<sup>st</sup> of March and 31<sup>st</sup> of August as per Section 40 of the Wildlife Acts 1976 to 2012.</p>

<b>Screening Matrix</b>	
<p>Describe any likely changes to the site arising as a result of:</p> <ul style="list-style-type: none"> <li>• Reduction of Habitat Area</li> <li>• Disturbance to key species</li> <li>• Habitat or species fragmentation</li> <li>• Reduction in species density</li> <li>• Changes in key indicators of conservation value</li> <li>• Water Quality etc.</li> <li>• Climate change</li> </ul>	<p>The proposed scheme will not affect, disturb or reduce any habitat or species fragmentation within the Lower River Shannon SAC. The scheme will involve the removal of hedgerow as mentioned in section 2. This hedgerow may be used by birds for nesting and breeding but is not a habitat area that forms part of the Lower River Shannon SAC.</p> <p>The project will not have the potential to result in any changes in water quality within the Lower River Shannon SAC.</p> <p>The N21 road, to which the improvements will be carried out, is a long established route. Therefore, the ongoing operational effects of the route, following completion of the scheme, will remain unaltered. There will be no additional disturbance as a result.</p>
<p>Describe any likely impacts on the European Sites as a whole in terms of:</p> <ul style="list-style-type: none"> <li>• Interference with the key relationships that define the structure of the site</li> <li>• Interference with key relationships that define the function of the site</li> </ul>	<p>As mentioned in section 4, the proposed scheme does not have the potential to interfere with any key relationships that define the structure or function of the nearby European Sites.</p>
<p>Provide indicators of significance as a result of the identification of effects set out above in terms of:</p> <ul style="list-style-type: none"> <li>• Loss</li> <li>• Fragmentation</li> <li>• Disruption</li> <li>• Disturbance</li> <li>• Change to key elements of the site (e.g. Water quality etc.)</li> </ul>	<p>As mentioned in section 4, the proposed scheme does not have the potential to interfere with any features of the nearby European Sites.</p>
<p>Describe from the above those elements of the project of 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>As mentioned in section 4, the proposed scheme does not have the potential to affect the nearby European Sites.</p>
<b>Table 3: Screening Matrix for Proposed Scheme</b>	

## 5 FINDING OF NO SIGNIFICANT EFFECTS MATRIX

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As the footprint of the proposed scheme is small and is not located within or adjoining the Lower River Shannon SAC (002165) it will not have the potential to result in direct impact in the form of physical habitat loss, degradation or disturbance to this European Site. This screening assessment confirmed the absence of a functional impact pathway between the proposed scheme and the nearby Lower River Shannon SAC (002165), which concluded that the proposed scheme will have no impact on the Lower River Shannon SAC (002165).

## 6 DATA COLLECTED TO CARRY OUT THE ASSESSMENT

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This screening assessment report was completed by the Mid West National Road Design Office. The findings and results in this screening assessment report were arrived at following a detailed desktop study and a site visit, which was carried out in July 2020.

The following is a list of the main sources of data used during the desktop study:

- National Parks & Wildlife Services Website
- Environmental Protection Agency Website
- Limerick City & County Council Planning Portal
- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government, 2009.
- Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC. European Commission Environment DG, 2002.
- Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC. European Commission, 2000.
- A Guide to Habitats in Ireland, Fossitt (2000)

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