

# N5 Ballaghaderreen to Scramoge Road Project

## EIA Screening Report



June 2015

# **N5 Ballaghaderreen to Scramoge Road Project**

## **EIA Screening Report**

### **TABLE OF CONTENTS**

<b>1. EXECUTIVE SUMMARY .....</b>	<b>1</b>
1.1 Introduction.....	1
1.2 The Proposed Road Development .....	1
1.3 Methodology .....	1
1.4 Screening Conclusions.....	1
<b>2. INTRODUCTION .....</b>	<b>3</b>
2.1 Project Brief .....	3
<b>3. DESCRIPTION OF PROPOSED DEVELOPMENT .....</b>	<b>5</b>
3.1 Overview .....	5
3.2 Principal Features of Proposed Road Development .....	6
<b>4. EIA SCREENING PROCESS .....</b>	<b>7</b>
4.1 Introduction.....	7
4.2 Relevant Legislation .....	7
4.2.1 Legislation.....	7
4.3 Methodology .....	8
4.3.1 Introduction .....	8
4.4 Mandatory EIA.....	8
4.5 Sub-Threshold Development.....	11
4.6 Characteristics of the Proposed Development .....	13
4.6.1 Size of the Project.....	13
4.6.2 Cumulation with Other Projects .....	13
4.6.3 Use of Natural Resources.....	13
4.6.4 Production of Waste.....	14
4.6.5 Pollution and Nuisances .....	14
4.6.6 Risk of Accidents .....	14
4.7 Location of Projects .....	14
4.7.1 Existing Land Use.....	14
4.7.2 Abundance, Quality and Regenerative Capacity of Natural Resources ..	15
4.7.3 The Absorption Capacity of the Natural Environment.....	15
4.8 Characteristics of the Potential Impact .....	20
4.8.1 Extent of the Impact.....	20
4.8.2 Transfrontier Nature of the Impact.....	20
4.8.3 Magnitude and Complexity of the Impact.....	20
4.8.4 Probability of the Impact .....	21
4.8.5 Duration, Frequency and Reversibility of the Impact .....	22

<b>5.</b>	<b>CONCLUSION.....</b>	<b>23</b>
5.1	Introduction.....	23
5.2	Mandatory EIA.....	23
5.3	Sub-Threshold EIA .....	23
5.3.1	Characteristics of the Proposed Development.....	23
5.3.2	Location of the Proposed Development.....	23
5.3.3	Characteristics of Potential Impacts.....	23
5.3.4	Likely Significant Effects .....	23
5.4	Conclusion and Recommendations.....	23
<b>APPENDIX 1</b>	<b>EIA Screening Checklist</b>	
<b>APPENDIX 2</b>	<b>EIA Screening Manager's Order</b>	
<b>APPENDIX 3</b>	<b>Drawings</b>	

## **1. EXECUTIVE SUMMARY**

### **1.1 Introduction**

Roughan & O'Donovan – AECOM Alliance Consulting Engineers (ROD-AECOM) was commissioned by Roscommon County Council to develop the proposed N5 Ballaghaderreen to Scramoge Road Project.

This Environmental Impact Assessment (EIA) Screening Report has been prepared by ROD-AECOM with the assistance of expert advice, surveys and assessments from environmental and technical specialists.

### **1.2 The Proposed Road Development**

The proposed road development extends from the N5 Ballaghaderreen Bypass at the western end to Scramoge at the eastern end and covers a distance of approximately 34km.

The proposed road development will be a Type 1 Single Carriageway with a typical paved width of 12.5 metres. There will be three roundabout junctions on the mainline providing the main access points to Frenchpark, Elphin and Strokestown. Other elements of the proposed development include:

- Construction of three roundabout junctions on the mainline providing the main access points to Frenchpark, Elphin and Strokestown.
- Construction of bridges and culvert structures over watercourses;
- Construction of at grade junctions providing connectivity to the existing road network;
- Construction of accommodation works ancillary to the proposed road;
- Construction of a drainage system in accordance with sustainable drainage design principles and guidance;
- Diversion of existing services and utilities;
- Provisions for treatment and recovery of unsuitable material;
- Provision of landscape planting, signage, lighting and other works ancillary to the construction and operation of the proposed road development.

### **1.3 Methodology**

This screening has been undertaken having regard to the following documents:

- *Environmental Impact Assessment (EIA), Guidance for Consent Authorities regarding Sub-threshold Development* (EPA, 2003);
- *Environmental Impact Assessment of National Road Schemes – A Practical Guide* (NRA, 2008);
- *The European Commission Guidelines on EIA Screening* (June 2001).

### **1.4 Screening Conclusions**

The proposed road development does not meet the thresholds for which the preparation of an Environmental Impact Statement (EIS) is a mandatory requirement.

The criteria under which the project must be considered are outlined within Article 27 of the European Communities (Environmental Impact Assessment) Regulations, 1989 and the screening criteria categories include:

- (i) Characteristics of the Proposed Development,
- (ii) Location of the Proposed Development and,
- (iii) Characteristics of Potential Impacts.

The proposed road development is approximately 34km long and will comprise 425,000m<sup>2</sup> of paved area which far exceeds the paved area of an 8km Type 2 Dual carriageway which would require an EIS.

There are a number of areas of National and International importance in proximity to the proposed road development including a number of European Sites such as Annaghmore Lough (Roscommon) cSAC and Bellanagare Bog cSAC and SPA. The area is rich in archaeology with the most significant archaeological feature being Rathcroghan, which is one of four major royal sites in ancient Ireland and today is represented as an archaeological complex of over 100 monuments, located to the north-west of the village of Tulsk in County Roscommon. This complex of nationally important monuments has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site.

The majority of the impacts associated with the construction stage will be short term, and will be reversible over time however the road footprint will result in a loss of habitat and the removal of natural material.

The proposed development will be designed in accordance with the NRA Design Manual for Roads and Bridges, the NRA Environmental Assessment and Construction Guidelines, and other best practice guidelines. The strict adherence to these guidelines will ensure that the probability of significant environmental effects will be minimised.

Further investigations, surveys and assessments are required in order to determine the likely significant effects on the environment and therefore, likely significant effects cannot be ruled out at this stage.

Roscommon County Council has decided that the proposed road development would be likely to have significant effects on the environment due to:

- The likely impacts associated with the proposed development;
- The need for further surveys, assessments and investigations;
- The need for the development and incorporation of mitigation measures into the design.

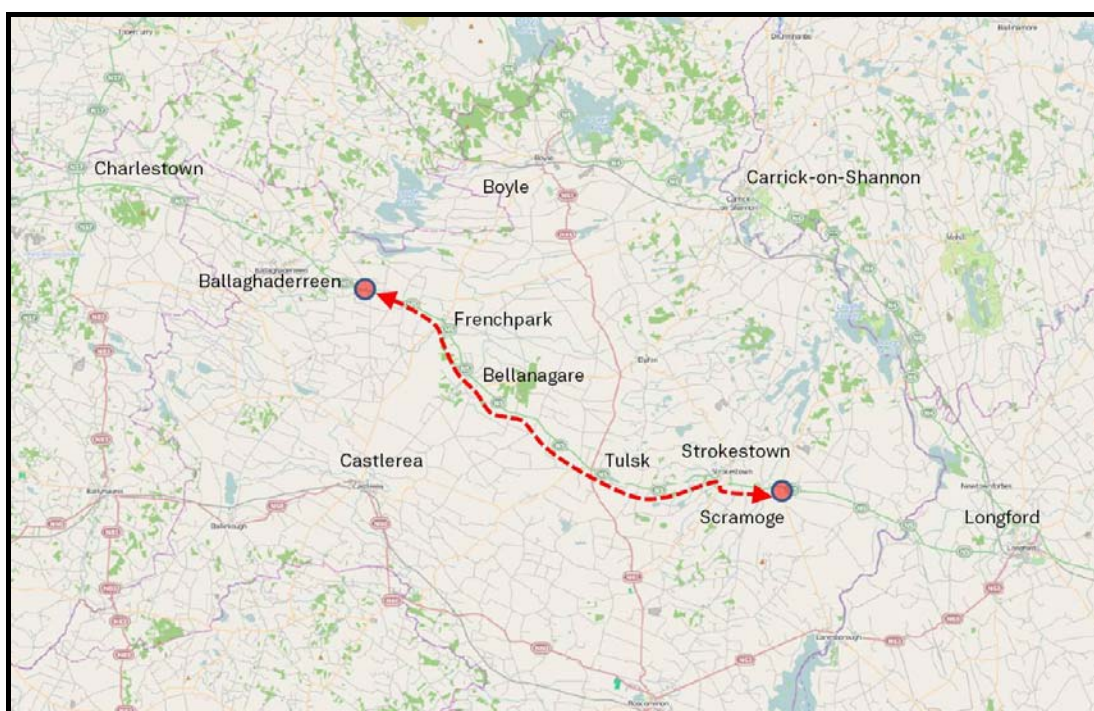
In accordance with the Roads Act 1993 to 2014, Roscommon County Council will inform An Bord Pleanála that they consider that the proposed N5 Ballaghaderreen to Scramoge Road Project would be likely to have significant effects on the environment (see Manager's Order, Appendix 2).

## 2. INTRODUCTION

### 2.1 Project Brief

An upgrade of the N5 national primary route corridor between Ballaghaderreen and Scramoge has been under consideration since the mid 2000's. In 2010 Roscommon National Roads Design Office (NRDO) on behalf of Roscommon County Council identified an Emerging Preferred Route Corridor for the project following a Route Selection process, as presented in Appendix 3, Figure 1.

The project was suspended following the completion of the Route Selection process but is now being reconsidered. Roughan & O'Donovan-AECOM Alliance is now tasked with re-examining the Emerging Preferred Route previously identified and to progress the project through the subsequent project planning phases. The alignment of the existing N5 is illustrated in Figure 2.1 below. The proposed project is referred to as the N5 Ballaghaderreen to Scramoge Road Project.



**Figure 2.1 Location of the Proposed Development**

This report has been prepared in accordance with published guidance to document the Screening of whether an Environmental Impact Assessment (EIA) is required for the proposed road development.

This EIA Screening Report has been prepared by Roughan & O'Donovan – AECOM Alliance with inputs where necessary from the Project Team as outlined in Table 2.1 below:

**Table 2.1 List of Specialists**

<b>Topic</b>	<b>Specialist</b>	<b>Principal Contributors</b>
Ecology	McCarthy Keville O'Sullivan	Corina Collieran Pat Roberts
Archaeology and Cultural Heritage	Courtney Deery Heritage Consultants	Lisa Courtney
Architectural Heritage	Historic Buildings Consultants	Rob Goodbody
Landscape and Visual	Brady Shipman Martin	Thomas Burns
Socio Economics	Optimize Ltd.	Craig Bullock
Agriculture and Property	John Bligh and Associates	John Bligh
Hydrology	HydroEnvironmental Ltd. ROD-AECOM Alliance	Tony Cawley John Paul Rooney
Hydrogeology	HydroEnvironmental Ltd. ROD-AECOM Alliance	Tony Cawley Sarah Casey
Soils and Geology	ROD-AECOM Alliance	Fintan Buggy
Air Quality and Climate	AWN Consulting Ltd.	Sean McMahon
Noise and Vibration	AWN Consulting Ltd.	Ronan Murphy
Photomontages	MacroWorks	John Flanagan
Traffic Modelling and Economic Appraisal	ROD-AECOM Alliance	Philip Shiels
Alignment, Structures and Drainage	ROD-AECOM Alliance	Jim Thorpe Richard Spencer

### **3. DESCRIPTION OF PROPOSED DEVELOPMENT**

#### **3.1 Overview**

The N5 National Primary Route commences in Longford town, passes through counties Longford, Roscommon and Mayo and terminates in Westport, Co. Mayo. In conjunction with the N4, the route connects Dublin with the west of Ireland.

The proposed N5 Ballaghaderreen to Scramoge Road Project is approximately 34km in length and connects the N5 Ballaghaderreen Bypass with Scramoge to the east of Strokestown, Co. Roscommon.

The road development commences at the eastern end of the N5 Ballaghaderreen Bypass approximately 5km west of Frenchpark, where it departs to the south of the existing N5 before crossing the R361 Castlerea Road approximately 3km southwest of Frenchpark. Between this point and the crossing of the existing N5 between Frenchpark and Bellanagare the proposed road passes a minimum of 300 metres to the north of Bellanagare Bog cSAC/SPA. Following the crossing of the existing N5 at Cashel, the proposed road largely follows the line of the R369 Elphin to Bellanagare Road to the north of Bellanagare and Tulsk thereby avoiding Rathcroghan archaeological complex. The route will have a junction with the N61 Roscommon to Boyle road approximately 1.5km south of Shankill Cross. In the townland of Lugboy the route swings in a south easterly direction running largely parallel to the R368 and to the east of Strokestown. Through this section the route will cross the Scramoge River, pass to the rear of Strokestown House and through the old Strokestown House Demesne. A junction will be provided on the Kiltrustan Road at Lavally which will act as the main access to Strokestown. The route will connect with the existing N5 in the townland of Scramoge providing an upgrade of the existing N5/R371 junction.

The proposed route is located less than 500m from three European sites namely Annaghmore Lough (Roscommon) cSAC and Bellanagare Bog cSAC and SPA. Callow Bog cSAC, Cloonshanville Bog cSAC, Lough Gara SPA and Lough Ree SPA are also located adjacent to the proposed route.

The proposed road development is located within a highly karstic area with a number of karst features such as closed depressions, swallow holes, springs and turloughs. The area is covered by varying depths of quaternary deposits with exposed rock in some areas and areas of extreme groundwater vulnerability. The majority of the route transects areas of low to high groundwater vulnerability. Groundwater is a major source of drinking water in County Roscommon with a number of Group Water Schemes in the vicinity of the proposed road development and it is expected that there will also be a number of private drinking wells.

The most significant archaeological feature is Rathcroghan which is one of four major royal sites in ancient Ireland and today is represented as an archaeological complex of over 100 monuments, set in a rural pastoral landscape, located to the north-west of the village of Tulsk in County Roscommon. This complex of nationally important monuments has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site.

Rathcroghan is one of seven key Cultural Heritage constraints identified within the study area as part of the Constraints Study and Route Selection process. These seven key constraints were highlighted following extensive consultation with state agencies and a number of institutions with a particular research interest and expertise in the archaeology; architecture and cultural heritage of the study area.



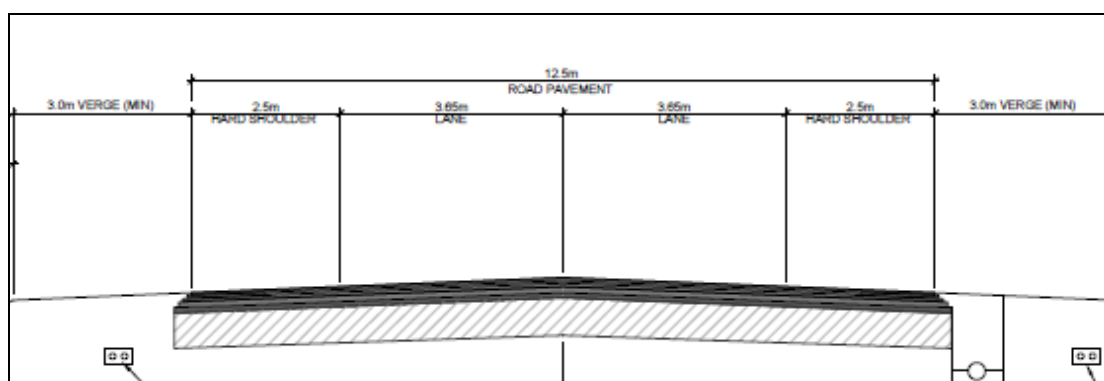
These archaeological complexes and architectural demesnes which are extensive, diverse and dispersed in nature are listed below:

- Rathcroghan;
- Carnfree;
- Tulsk medieval Borough;
- Ardakillan;
- Cloonfree;
- Strokestown;
- Cloonfinlough.

### 3.2 Principal Features of Proposed Road Development

The proposed road will be designed in accordance with the NRA Project Management Guidelines, the Project Appraisal Guidelines and the suite of NRA Environmental Assessment and Construction Guidelines. The geometric design of the road development is governed by the National Roads Authority Design Manual for Roads and Bridges (NRA DMRB).

The proposed road development will be designed as a Type 1 Single Carriageway in accordance with the DMRB TD27 Cross-Sections and Headroom, as presented in Plate 3.1.



**Plate 3.1 Type 1 Single Carriageway**

The proposed road development includes the following principal elements:

- Construction of 34km of Type 1 Single Carriageway;
- Construction of three roundabout junctions on the mainline providing the main access points to Frenchpark, Elphin and Strokestown.
- Construction of bridges and culvert structures over watercourses;
- Construction of at grade junctions providing connectivity to the existing road network;
- Construction of accommodation works ancillary to the proposed road;
- Construction of a drainage system in accordance with sustainable drainage design principles and guidance;
- Diversion of existing services and utilities;
- Provisions for treatment and recovery of unsuitable material;
- Provision of landscape planting, signage, lighting and other works ancillary to the construction and operation of the proposed road development.

## **4. EIA SCREENING PROCESS**

### **4.1 Introduction**

This EIA Screening Report has been prepared by ROD-AECOM Alliance on behalf of Roscommon County Council.

This report documents the significant environmental effects which the proposed road development is likely to have on the receiving environment.

Furthermore, this report has been prepared having regard to the following documents:

- Department of the Environment, Heritage and Local Government (August 2003), Environmental Impact Assessment (EIA) Guidelines for Consent Authorities regarding Sub-threshold Development;
- National Roads Authority (2008), Environmental Impact of National Road Schemes – A Practical Guide (Revision 1, November 2008);
- Director General Environment – European Commission (June 2001), Guidance on EIA Screening; and
- Environmental Protection Agency (March 2002), Guidelines on the Information to be Contained in Environmental Impact Statements.

### **4.2 Relevant Legislation**

#### **4.2.1 Legislation**

EIA requirements derive from Council Directive 85/337/EEC (as amended by Directives 97/11/EC, 2003/35/EC and 2009/31/EC) and as codified and replaced by Directive 2011/92/EU of the European Parliament and the Council on the assessment of the effects of certain public and private projects on the environment (and as amended in turn by Directive 2014/52/EU).

Section 50 of the Roads Act 1993, as amended, sets out the requirements and provisions for the preparation of an EIS.

All roads projects can be placed into one of the following two categories:

- those that exceed the thresholds laid down and therefore have a mandatory requirement to prepare an EIS; and
- those projects that are sub-threshold and must be assessed on a case-by-case basis to determine whether or not they are likely to have significant effects on the environment.

In the case of the current scheme it has been determined as sub-threshold and will be determined on a case-by-case basis, outlined below in table 4.2.

## **4.3 Methodology**

### **4.3.1 Introduction**

Screening is the process of deciding whether a development requires an EIA. The mandatory and discretionary provisions within the Roads Act 1993, as amended, allow the requirement for an EIA to be determined.

The methodology for screening road developments was based on the following documents:

- Environmental Impact Assessment (EIA), Guidance for Consent Authorities regarding Sub-threshold Development (DoEHLG, 2003);
- Environmental Impact Assessment of National Road Schemes – A Practical Guide (NRA, 2008); and
- The European Commission Guidelines on EIA Screening (June 2001).

The European Commission Guidelines on EIA Screening (June 2001) provide a flow diagram of the screening process and this is the process generally followed in this Screening Report (See Figure 4.1).

## **4.4 Mandatory EIA**

The proposed road development does not meet the thresholds to require a mandatory EIA.

The legislative requirements which deem whether an EIA is mandatory for a project are outlined in Section 50 of the Roads Act, 1993 (as amended) and in Article 8 of the Roads Regulations, 1994. An overview of these legislative requirements and their applicability to this road project are provided in Table 4.1.

**Table 4.1 Screening Matrix for Mandatory EIA**

Mandatory Threshold	Regulatory Reference	Response
Construction of a Motorway	S. 50(1)(a) of the Roads Act, 1993, as substituted by S. 9(1)(d)(i) of the Roads Act, 2007	The N5 Ballaghaderreen to Scramoge proposed road development is not a Motorway. <b>Mandatory Threshold Trigger not reached.</b>
Construction of a Busway	S. 50(1)(a) of the Roads Act, 1993, as substituted by S. 9(1)(d)(i) of the Roads Act, 2007	The N5 Ballaghaderreen to Scramoge proposed road development is not a Busway. <b>Mandatory Threshold Trigger not reached.</b>
Construction of a Service Area	S. 50(1)(a) of the Roads Act, 1993, as substituted by S. 9(1)(d)(i) of the Roads Act, 2007	The N5 Ballaghaderreen to Scramoge proposed road development is not a Service Area. <b>Mandatory Threshold Trigger not reached.</b>
<p>Prescribed type of proposed road development</p> <ul style="list-style-type: none"> <li><i>The construction of a new road of four or more lanes, or the realignment or widening of an existing road so as to provide four or more lanes, where such new, realigned or widened road would be eight kilometres or more in length in a rural area, or 500 metres or more in length in an urban area</i></li> <li><i>The construction of a new bridge or tunnel which would be 100 metres or more in length</i></li> </ul>	Article 8 of the Roads Regulations, 1994 (Road development prescribed for the purposes of S. 50(1)(a) of the Roads Act, 1993	<p>The N5 Ballaghaderreen to Scramoge proposed road development does not involve the provision of four or more lanes anywhere throughout its length. <b>Mandatory Threshold Trigger not reached.</b></p> <p>The N5 Ballaghaderreen to Scramoge proposed road development does not involve the construction of a bridge or a tunnel that would be more than 100m in length. <b>Mandatory Threshold Trigger not reached.</b></p>

**Table 4.2 Screening Matrix for Sub-Threshold Developments**

Sub-Threshold Requirements	Regulatory Reference	Response
Where An Bord Pleanála (ABP) considers that a proposed road development would be likely to have significant effects on the environment, it shall direct the road authority to prepare an EIS	S. 50(1)(a) of the Roads Act, 1993.	An Bord Pleanála has not directed the Road Authority to prepare an EIS.
Where a road authority considers that a proposed road development would be likely to have significant effects on the environment, it shall inform ABP in writing and where ABP concurs, it shall direct the road authority to prepare an EIS.	S. 50(1)(c) of the Roads Act, 1993.	Roscommon County Council considers the road would be likely to have significant effects on the environment. RCC is to inform ABP of their decision and await direction from the Board.
<p>Where a proposed road development would be located on certain environmental sites the road authority shall decide whether the proposed development would be likely to have significant effects on the environment. The sites concerned are:</p> <ul style="list-style-type: none"> <li>i. a European Site, meaning <ul style="list-style-type: none"> <li>(a) a candidate site of Community importance,</li> <li>(b) a site of Community importance,</li> <li>(c) a candidate special area of conservation,</li> <li>(d) a special area of conservation,</li> <li>(e) a candidate special protection area, or</li> <li>(f) a special protection area</li> </ul> </li> <li>ii. land established or recognised as a nature reserve within the meaning of section 15 or 16 of the Wildlife Act, 1976 (No. 39 of 1976),</li> <li>iii. land designated as a refuge for fauna under section 17 of the Wildlife Act, 1976 (No. 39 of 1976),</li> </ul> <p>The road authority concerned shall decide whether the proposed road development would or would not be likely to have significant effects on the environment, and if the authority decides that the proposed road development would be likely to have such effects, paragraph (c) shall apply accordingly.</p>	S. 50(1)(d) of the Roads Act, 1993, as amended by reg. 56(7) of the European Communities (Birds and Natural Habitats) Regulations 2011)	Roscommon County Council decided that, in the absence of additional surveys and assessments, the possibility that the proposed N5 Ballaghaderreen to Scramoge Road Development would be likely to have significant effects on the environment cannot be ruled out at this stage (see the following paragraphs and the Screening Checklist included in Appendix 1).

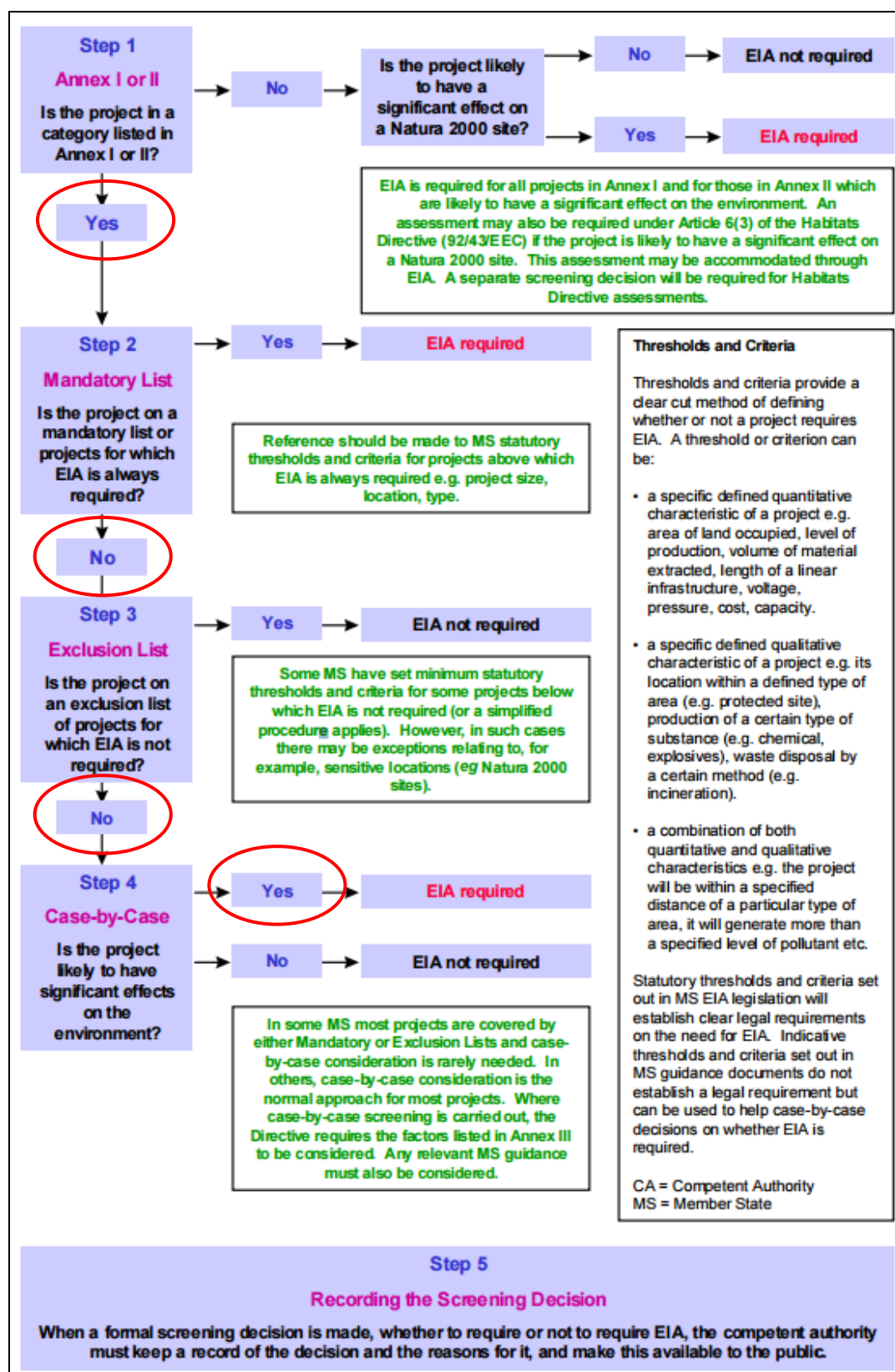


Figure 4.1 The Screening Process (Source: European Commission Guidelines on EIA Screening (June 2001))

## 4.5 Sub-Threshold Development

Where a decision is being made on whether a proposed road development would or would not be likely to have significant effects on the environment, regard must be

given to the criteria specified for the purposes of Article 27 of the European Communities (Environmental Impact Assessment) Regulations, 1989 (as amended).

The Article 27 screening criteria are grouped into three categories:

- (i) Characteristics of the Proposed Development,
- (ii) Location of the Proposed Development and,
- (iii) Characteristics of Potential Impacts.

Additionally, the screening process can be aided using the European Commission publication, Guidance on EIA Screening (June 2001) checklists, particularly the “Screening Checklist” and the “Checklist of Criteria for Evaluating the Significance of Environmental Effects”.

The criteria associated with each category, (i.e. the criteria that must be taken into account when making screening decisions on a case by case basis) is presented in Table 4.3 (below). This has then been considered in the context of the proposed road development, and a description of the aspects of the environment likely to be significantly affected by the project are outlined in Sections 4.6, 4.7 and 4.8.

**Table 4.3 Article 27 Screening Criteria for Determining Likely Significant Effects**

<p><b>1.Characteristics of proposed development</b></p> <p>The characteristics of proposed development, in particular:</p> <ul style="list-style-type: none"> <li>• the size of the proposed development,</li> <li>• the cumulation with other proposed development,</li> <li>• the use of natural resources,</li> <li>• the production of waste,</li> <li>• pollution and nuisances,</li> <li>• the risk of accidents, having regard to substances or technologies used.</li> </ul>
<p><b>2. Location of proposed development</b></p> <ul style="list-style-type: none"> <li>• The environmental sensitivity of geographical areas likely to be affected by proposed development, having regard in particular to:</li> <li>• the existing land use,</li> <li>• the relative abundance, quality and regenerative capacity of natural resources in the area,</li> <li>• the absorption capacity of the natural environment, paying particular attention to the following areas: <ul style="list-style-type: none"> <li>(a) wetlands,</li> <li>(b) coastal zones,</li> <li>(c) mountain and forest areas,</li> <li>(d) nature reserves and parks,</li> <li>(e) areas classified or protected under legislation, including special protection areas designated pursuant to Directives 79/409/EEC and 92/43/EEC,</li> <li>(f) areas in which the environmental quality standards laid down in legislation of the EU have already been exceeded,</li> <li>(g) densely populated areas,</li> <li>(h) landscapes of historical, cultural or archaeological significance.</li> </ul> </li> </ul>
<p><b>3. Characteristics of potential impacts</b></p> <p>The potential significant effects of proposed development in relation to criteria set out under paragraphs 1 and 2 above, and having regard in particular to:</p> <ul style="list-style-type: none"> <li>• the extent of the impact (geographical area and size of the affected population),</li> </ul>

- the transfrontier nature of the impact,
- the magnitude and complexity of the impact,
- the probability of the impact,
- the duration, frequency and reversibility of the impact.

## **4.6 Characteristics of the Proposed Development**

### **4.6.1 Size of the Project**

The mandatory threshold for prescribed types of road development in a rural area is 8km of four or more lanes (dual carriageway). Based on the NRA DMRB TD27, this gives a total paved surface area of 168,000m<sup>2</sup>.

This proposed road development is approximately 34km in length and with a typical width of 12.5m giving a total paved surface area of 425,000m<sup>2</sup> which is in excess of twice area of an 8km Dual carriageway which would require an EIS.

Having regard to the size of the proposed project, likely significant effects on the environment cannot be ruled out without more detailed surveys, investigations and assessments.

### **4.6.2 Cumulation with Other Projects**

A number of searches in relation to plans and projects that may have the potential to result in cumulative impacts have been undertaken. Data sources included the following:

- Roscommon County Council Website (Planning and roads sections);
- An Bord Pleanála Website (Planning Searches);
- Web search of Windfarm projects in Co. Roscommon;
- Web Search for major infrastructure projects in Co. Roscommon;
- Roscommon County Development Plan 2014 – 2020;
- Coillte Roscommon Website.

The searches revealed few large scale projects that have the potential to result in likely significant cumulative impacts. Most of the recent planning applications shown on the Roscommon County Council website in the vicinity of the proposed road were small in scale and domestic or minor industrial. Larger projects reviewed included roads and most particularly the recently constructed N5 Ballaghaderreen Bypass, which is contiguous with the western end of the current road project. Other large scale plans and projects assessed were located further from the proposed road development with no identified pathways for cumulative impacts.

Additional surveys and assessment work is required in order to determine whether existing projects, in combination with the proposed project, will have a significant cumulative effect on the receiving environment.

### **4.6.3 Use of Natural Resources**

Whilst exact quantities of materials required have not been determined at this stage, large amounts of aggregates will be used during construction phase. Some of this material will be gained from within the site, however the majority will be need to be imported to the site.



#### 4.6.4 Production of Waste

Large quantities of unsuitable material will be excavated and not reused during the construction. Whilst the exact amount of this unsuitable material has not been evaluated, an assessment will be undertaken to identify potential locations for recovery/disposal. The excavation and treatment of this material may have potential environmental effects.

#### 4.6.5 Pollution and Nuisances

The N5 is in close proximity to Bellanagare Bog cSAC and SPA, Annaghmore Lough cSAC and Cloonshanville Bog cSAC.

During construction, polluting material has the potential to cause environmental effects, however the likelihood and severity of these effects will be minimised through compliance with the NRA Environmental and Construction Guidelines and the employment of construction management best practice. During the construction stage temporary impacts will be experienced by those property owners along the proposed road and those road users on the existing network.

When the proposed road development is operational there will be increases in noise and vibration levels and air quality emissions along the route most particularly where the route will be located in rural areas. The proposed road will reduce emission levels in the urban areas of Strokestown, Tulsk, Bellanagare and Frenchpark which will have beneficial effects on a greater number of properties.

#### 4.6.6 Risk of Accidents

During the construction stage, the likelihood of an accidental spillage of construction materials into the aquatic environment will be managed through the adoption of strict best practice construction management. During the operational stage, it is anticipated that the risk of accidents and the resulting pollution risks will be reduced due to improved road safety.

### 4.7 Location of Projects

#### 4.7.1 Existing Land Use

Land use along the length of the proposed road development is predominantly agricultural land with substantial areas bog of forestry as well as numerous lakes. Many of these bogs and lakes are designated ecological sites as summarised in Table 4.4 below.

**Table 4.4 European Sites Adjacent to Proposed Development**

Site Code	Site Name	Designation
000595	Callow Bog	cSAC
000614	Cloonshanville	cSAC
000592, 004105	Bellanagare Bog	cSAC SPA
001626	Annaghmore Lough	cSAC
004048	Lough Gara	SPA
004064	Lough Ree	SPA

The main population centres connected by the existing N5 are Strokestown, Tulsk, Bellanagare and Frenchpark whilst Ballaghaderreen is located to the west of the

study area. Elphin is located to the north proposed road and is connected to the existing N5 by a number of regional and national secondary roads.

#### **4.7.2 Abundance, Quality and Regenerative Capacity of Natural Resources**

A large amount of construction material will be required for the construction of the proposed development, some of which will be sourced from excavated materials on the site, however other materials, including steel, concrete and bitumen, will be required to be imported.

#### **4.7.3 The Absorption Capacity of the Natural Environment**

##### **4.7.3.1 Overview**

The rivers and lakes along the existing alignment are located within the Shannon International River Basin District (SIRBD) and have been classified by the Water Framework Directive as Poor to Moderate water quality status between Ballaghaderreen and Cloonyquin, and Poor to Good between Cloonyquin and Strokestown. The groundwater classification for this region is classified as poor.

The Water Framework Directive requires that good water quality status is achieved for all waterbodies that are classified as Poor to Moderate by December 2015. The current Risk category is 1A for the area between Ballaghaderreen and Scramoge which denotes the area will not achieve ecological or good chemical status potential by 2015.

The GSI quaternary mapping for the area described as limestone till and have a high clay content making drainage characteristic poor. During the construction phase due to potential pollution incidences, measures must be put in place to protect affected water bodies and to maintain or improve the water quality status.

##### **4.7.3.2 Wetlands and Watercourses**

There are at least 8 crossings of the alignment by rivers or its tributaries including the Carricknabrah, Owennaforeesha, Owenur and Scramoge Rivers. Two major areas of bogland, the Bellangare Bog to the South and Cloonshanville are designated as cSACs. An extensive region of lakelands is located to the South East of the proposed alignment with Annaghmore Lough the largest of these lakes classified as a cSAC.

There is also an area of extensive seasonal flooding in the townland of Cregga which is being assessed for its hydrological and ecological values. It is considered that this flooding is both hydrological and hydrogeological linked. This flooding occurs annually over the winter months with water levels reseeding in late spring. The area of flooding occurs over an area of exposed limestone bedrock. Due to the nature of the subsoils, the waters cannot get away and subsequently flood the low lying areas. This is likely to be augmented by groundwaters rising up through the bedrock.

Several areas of wet grasslands are split by the proposed scheme. These areas are very poorly drained with stagnant water which supports semi natural habitats.

Watercourses can be sensitive to pollution, particularly to the potential increased levels of suspended solids during the construction stage. Suspended solids (silt) affect aquatic life particularly larger animals such as fish, most critically when it settles in spawning areas. Other impacts include:

- physical obstructions to upstream and downstream migration both during and after construction;
- disturbance of spawning beds during construction - timing of works is critical
- point source pollution incidents during construction

Potential impacts to the wetlands are considered high. However, further investigation, survey and assessment are required to rule out likely significant effects.

#### 4.7.3.3 Coastal Zones

There are no coastal zones affected by the proposed road development.

#### 4.7.3.4 Mountain and Forest Areas

There are no mountain ranges in the study area however there are significant areas of forestry. Most of these are Coillte and privately owned conifer plantations which can be recreated in severed parcels of land.

#### 4.7.3.5 Nature Reserves and Parks

There are no nature reserves or parks affected by the proposed road development.

#### 4.7.3.6 Nationally Designated Sites

The following are a list of Nationally designated sites in proximity to the proposed development:

- Bellangare Bog pNHA
- Cloonshanville Bog pNHA
- Ardakillan Lough pNHA
- Annaghmore Lough (Roscommon) pNHA
- Corbally Turlough pNHA
- Lough Gara pNHA
- Ardagh Bog pNHA

The Environmental Impact Assessment process will assess likely significant effects on these nationally designated sites. During the route selection stage avoidance of these sites has been the primary mitigation measure, however where necessary mitigation and control measures will be adopted to ensure avoidance of impacts on these sites.

#### 4.7.3.7 European Sites

The following are a list of European sites in proximity to the proposed development:

- Callow Bog cSAC
- Cloonshanville Bog cSAC
- Bellanagare Bog cSAC
- Bellanagare Bog SPA
- Annaghmore Lough (Roscommon) cSAC
- Lough Gara SPA
- Lough Ree SPA

The locations of these European sites within the Study Area are presented in Appendix 3, Figure 2 Protected Ecology & Archaeology Constraints.

The Environmental Impact Assessment process will assess significant effects on the European sites. During the route selection stage avoidance of these sites has been the primary mitigation measure, however where necessary mitigation and control measures will be adopted to ensure avoidance of impacts on these sites, their qualifying interests and their conservation objectives as identified in the Appropriate Assessment.

#### 4.7.3.8 Environmental Quality Standards

From the information available at this stage of the process there are no known areas in which the environmental quality standards have already been exceeded. During the EIA process detailed studies will be undertaken of all parameters as required by the EIA Directive and all relevant environmental quality standards will be adhered to.

#### 4.7.3.9 Densely Populated Areas

There are no densely populated areas affected by the proposed development. The main areas of population within the study area are Strokestown, Tulsk, Bellangare and Frenchpark, all of which will benefit from improved environmental conditions as a result of traffic being removed from the towns. Elphin is the closest urban area to the proposed route and is located approximately 3 km from the route at its closest point and will be served by access points on the both regional roads and the National Secondary road.

#### 4.7.3.10 Landscapes of Historical, Cultural or Archaeological Significance

The Study Area is rich in archaeological, architectural and cultural heritage features. The archaeological record shows that the area has been the focus of human habitation and ritual activity since prehistory and well preserved archaeological landscapes as well as expansive medieval field systems and later demesne estates lend themselves to the historic character of the wider area and provide a receiving environment of nationally significant monuments, complexes and structures in to which a preferred route has to be identified and designed so as to have a minimal impact on all heritage assets.

Seven key constraints in terms of Archaeology, Architecture and Cultural Heritage have been identified within the study area and were taken into consideration as part of the Route Selection process. These seven key constraints were highlighted following extensive consultation with state agencies and a number of institutions with a particular research interest and expertise in the archaeology; architecture and cultural heritage of the study area. These archaeological complexes and architectural demesnes which are extensive, diverse and dispersed in nature are briefly described below.

The locations of archaeological, architectural and cultural heritage sites within the Study Area are presented in Appendix 3, Figure 2 Protected Ecology & Archaeology Constraints.

#### ***Rathcroghan & Carnfree***

Rathcroghan is one of four major royal sites in ancient Ireland and today is represented as an archaeological complex of over 100 monuments, set in a rural

pastoral landscape, located to the north-west of the village of Tulsk in County Roscommon. This complex of nationally important monuments has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site.

To understand Rathcroghan, it must be considered within its wider landscape and particularly in conjunction with the complex of Carnfree, located c. 4km to the south-east and south of Tulsk. While Rathcroghan is traditionally considered the seat and burial site of the Kings of Connacht, Carnfree known as Fraoich mhic Fhiodaigh Fholtruadh is according to the annals allegedly the burial place of Fraech (a great warrior of Connacht and son in law to Ailill and Medb) and the inauguration place of the Kings of Connacht.

Rathcroghan consists of monuments scattered over some four square miles on an elevated limestone plateau that constitute an archaeological landscape which stretches back to the Neolithic and documents over five thousand years of ritual and settlement activity. The attractiveness of the area around Rathcroghan for prehistoric and historic activity is chiefly derived from its topographical setting, given that it is situated on a broad elevated plateau of relatively good farmland surrounded by lowland and peat bogs.



**Plate 4.1      Aerial shot of Rathcroghan Mound**

The ancient name Crúachain has been attributed to mean ‘place of burial mounds’ and refers to the mounded landscape surrounding the great monument of Ràth Cruachan, the landscape of great assemblies and ancestral cemeteries. The central remains at both Cruachain and Carnfree are cemeteries of prehistoric burial mounds.

Rathcroghan is an example of the development and preservation of a human landscape since the Neolithic to the modern period (4000 BC to present), it is a blend of monument, myth, legend, spiritual and historic features and associations resulting in a well preserved, multi-period, ritual and royal landscape. As a symbol of Irish culture and identity, this landscape is of exceptional significance, both nationally and internationally.

### ***Tulsk Medieval Borough***

To the southeast of the plateau of Rathcroghan is the medieval settlement of Tulsk. There are a number of monuments associated with the settlement at Tulsk and it remains a well-preserved, important medieval settlement.

### ***Ardakillin***

Historic documentary sources mention a fort at Ardakillin and artefact discoveries during drainage works in the 19th century unearthed a collection of high-status objects signifying the status of the site. A number of crannogs and dry-land sites such as ringforts exist in the townland and appear to have formed a complex.

### ***Cloonfree***

A stronghold of the King of Connacht, O'Connor, in 1306, the main archaeological site at Cloonfree is a substantial moated site. It is shown on the first edition OS 6-inch Ordnance Survey (OS) as 'site of Palace' and 'Palace site of' on a later edition of the OS.

### ***Strokestown***

The 18th century town of Strokestown is centred on Strokestown House and Demesne. Strokestown Park House, is an important Palladian house, modified c.1730 to a design by the celebrated eighteenth century architect Richard Castle and concealing an earlier seventeenth century structure. Today the house and gardens have been restored and are open to the public.

Strokestown Demesne also contains a significant density of recorded archaeological monuments the majority of which are classified as ringforts or enclosures.

### ***Cloonfinlough***

Located southeast of Fin Lough and just outside the Study Area is the church site of Cloonfinlough. The church is contained within a sub circular graveyard which was originally a ringfort. A group of well-defined if not somewhat overgrown ringforts/enclosures are located to the northeast and form a small concentration of settlement sites that may be contemporary with the church site. Clonfinlough crannog is located to the north-west of the church site.

### ***Summary***

The routing, design and elevation of the road as well as the proposed landscape plan and noise mitigation will all carefully consider the potential for significant effects on archaeology, architecture and cultural heritage of the area. Close liaison will also be required with the National Monuments Service and other experts and groups with interest in Rathcroghan and Strokestown House in particular.

#### **4.7.3.11 Designated Focal Points/ Views**

In the Landscape Character assessment contained within the Roscommon County Development Plan 2014 – 2020 the route is largely located in areas classified as being of Moderate Value (LCA 20, 21, 29 and 31) with a small section of the route in an area of High Value (LCA 27). The route does however skirt to the north of LCA 28 Tulsk and Rathcroghan Plateau which is of Exceptional Value and contains the archaeological complex of Rathcroghan. These landscapes are considered to have a moderate visual absorption capacity to screen the route considering the drumlins, agricultural lands, bogland, lakes and forestry through which it will pass.

There are two listed views in proximity to the proposed route, V12 at Rathmore archaeological site and V11 at Fairymount Hill to the southwest of Frenchpark. Both however are considered sufficiently removed from the proposed road development so that there will not be a significant landscape and visual impact.

## **4.8 Characteristics of the Potential Impact**

### **4.8.1 Extent of the Impact**

The proposed road development is approximately 34,000m in length and 12.5m in width with a total paved surface area of 425,000m<sup>2</sup> which is the equivalent to 42.5 hectares. The footprint of the proposed road development will be much larger to include for embankments and cutting slopes, attenuation ponds, peat recovery areas, landscape planting and a maintenance strip.

The population affected by the proposed road development is relatively small due to the rural nature of the receiving environment and the routes remoteness from major urban areas.

### **4.8.2 Transfrontier Nature of the Impact**

There are no transfrontier impacts associated with the proposed road development.

### **4.8.3 Magnitude and Complexity of the Impact**

**Human Beings:** During construction, temporary negative impacts are predicted due to noise, dust and visual impacts. These impacts are not considered significant.

Community severance and land and property acquisition will be kept to a minimum and access to existing roads will generally be maintained. During operation, a positive impact is expected due to improved road conditions providing a safer and more reliable national primary route. Additionally, tourism and transport objectives will be met through improving connectivity between Dublin and the west of Ireland.

**Ecology:** Likely significant effects to the ecology of the area cannot be ruled out at this stage. However the NRA Environmental Assessment and Construction Guidelines will be followed to avoid and minimise impacts where possible and specific mitigation measures will be adhered to during the development of the proposed road development in order to reduce the impacts on all ecological receptors but most particularly the European sites. An Appropriate Assessment Screening Report will be prepared on the proposed road development and a Natura Impact Statement prepared.

**Soils and Geology:** Due to the large volumes of peat and other unsuitable material that is likely to be excavated, the environmental assessment will need to consider likely interaction with other environmental topics such as air quality, noise and vibration, landscape and the ecology of the watercourses in the study area. Likely significant effects to the soils and geology of the area cannot be ruled out at this stage and further assessments are required.

**Water:** Likely significant effects to water quality and in particular groundwater quality due to the presence of karst, within the area cannot be ruled out at this stage and further assessments are required. Best practice standards, environmental guidelines and mitigation measures will be adhered to in order to avoid impacts on water quality.

**Air and Climate:** No significant impact is anticipated to air and climate as traffic levels are not predicted to increase significantly due to the proposed road development. Likely significant effects to the air quality as a result of peat extraction cannot be ruled out at this stage and further assessments are required.

**Noise and Vibration:** An increase in noise and vibration levels is expected during the construction stage but the impact is likely to be temporary in nature. As the proposed road will largely be located in a rural area there will be an increase in noise levels but traffic levels are not expected to lead to particularly high noise levels and mitigation measures will be provided where the three criterion are met in accordance with the NRA Guidelines for the Treatment of Noise and Vibration in National Road Schemes, Revision 1 25<sup>th</sup> October 2004.

**Landscape:** The proposed road development has been sited to skirt around the edge of the Rathcroghan and Tusk plateau thereby minimising the landscape impacts by keeping in the lower contours among areas of peatland, forestry and lakes. The proposed road development will be developed sympathetically with the existing environment and landscape planting incorporated where necessary, however, significant environmental effects cannot be ruled out at this stage.

**Archaeology, Architecture and Cultural Heritage:**

Although efforts have been made to avoid sites as much as possible it is likely that all recorded archaeological, architectural and cultural heritage sites will not be avoided and there is potential for additional sites to be discovered throughout the course of the project. Direct impacts on Rathcroghan and the other 6 key sites will be avoided however where sites are directly impacted further investigations, surveys and assessments will be undertaken and mitigation measures implemented.

Additionally, the removal of a substantial proportion of traffic from the existing N5 which dissects the Rathcroghan complex is anticipated and therefore the development will have a positive effect on the area.

**Interactions:** There will be considerable interaction between many of the environmental topics due to the location of the proposed road development, particularly between the water environment and ecological receptors and between ecology and landscape.

**Overall:** Many of the environmental aspects listed above may be affected by the proposed road development. At this stage of the project the likely significance of these effects cannot be determined and there is potential for interaction between the various environmental aspects. Therefore, significant environmental effects cannot be ruled out without further surveys, investigations and assessments.

#### **4.8.4 Probability of the Impact**

During the construction stage noise nuisances and air pollution have a high probability of occurrence. Impacts are also likely on ecology, watercourses and landscape.

The NRA Environmental Assessment and Construction Guidelines and specific mitigation measures will be adhered to during the development of the proposed road project in order to reduce the probability of impacts on the surrounding environment.

The probability of impacts due to the development cannot be predicted at this stage of the project without survey, investigation and assessment.



#### **4.8.5 Duration, Frequency and Reversibility of the Impact**

The majority of the significant impacts during the development will be associated with the construction stage. These impacts are likely to be temporary, reversible and one-off.

The loss of habitat due to the development is likely to be irreversible and permanent. However, the duration, frequency and reversibility of the impacts due to the development cannot be predicted at this stage of the project without survey, investigation and assessment.

## **5. CONCLUSION**

### **5.1 Introduction**

This screening report has been carried out in accordance with a methodology that is based on *Environmental Impact Assessment (EIA), Guidance for Consent Authorities regarding Sub-threshold Development* (EPA, 2003), *Environmental Impact Assessment of National Road Schemes – A Practical Guide* (NRA, 2008) and *The European Commission Guidelines on EIA Screening* (June 2001).

### **5.2 Mandatory EIA**

The proposed N5 Ballaghaderreen to Scramoge Road Project does not exceed any of the thresholds outlined in the Roads Act 1993-2007 that would trigger a mandatory requirement to prepare an EIS.

### **5.3 Sub-Threshold EIA**

The proposed development is sub-threshold and therefore is assessed in accordance with Article 27 of the European Communities (EIA) Regulations, 1989.

#### **5.3.1 Characteristics of the Proposed Development**

The proposed road development is approximately 34km long and will comprise of a paved area of 425,000m<sup>2</sup> which is far in excess of that of an 8km dual carriageway road which is one of the mandatory triggers for EIA.

#### **5.3.2 Location of the Proposed Development**

The proposed development is located in County Roscommon and will develop a new section of national primary road replacing the section of the existing N5 which passes through the towns of Frenchpark, Bellanagare, Tulsk and Strokestown. The study area contains the Rathcroghan archaeological complex of nationally important monuments which has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site. The proposed development will also pass in close proximity to a number of European Sites including Bellanagare Bog cSAC and SPA.

#### **5.3.3 Characteristics of Potential Impacts**

The majority of the impacts associated with the construction stage will be short term, and will be reversible over time. The road footprint will result in a loss of habitat and the removal of natural material. The Appropriate Assessment Screening Report on the Emerging Preferred Route Corridor has concluded that a Natura Impact Statement is required due to the application of the Precautionary Principle.

#### **5.3.4 Likely Significant Effects**

Due to the sensitive nature of the receiving environment, particularly with the presence of archaeological sites such as the Rathcroghan Complex and Strokestown Demesne and also European sites such as Bellanagare Bog cSAC and SPA, likely significant effects cannot be ruled out without further more detailed assessment.

### **5.4 Conclusion and Recommendations**

Under Section 50 (1) (c) of the Roads Act 1997-2007 Roscommon County Council considers that the proposed N5 Ballaghaderreen to Scramoge Road Project is likely to have significant effects on the environment by virtue of those reasons listed in the previous section (see Manager's Order, Appendix 2).

## **APPENDIX 1**

### **EIA Screening Checklist**

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
1. Will construction, operation or decommissioning of the Project involve actions which will cause physical changes in the locality (topography, land use, changes in waterbodies, etc)?	<b>Yes</b> Construction of 34km Type 1 single carriageway in largely green field environment.	<b>?</b> Further surveys and assessments are required before significant effects can be ruled out.
2. Will construction or operation of the Project use natural resources such as land, water, materials or energy, especially any resources which are non-renewable or in short supply?	<b>Yes.</b> Land and natural resources will be required.	<b>?</b> Large amounts of material will be required for the construction of the road and large amounts of peat and other unsuitable material will be excavated on the site. Detailed assessments required.
3. Will the Project involve use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?	<b>Yes</b> Concrete, bitumen, oils, etc will be used during construction.	<b>No</b> Construction best practice and guidance will be followed in the construction of the proposed road.
4. Will the Project produce solid wastes during construction or operation or decommissioning?	<b>Yes</b> Unsuitable material will be excavated during construction.	<b>?</b> Further surveys and assessments are required before significant effects can be ruled out.
5. Will the Project release pollutants or any hazardous, toxic or noxious substances to air?	<b>Yes</b> Both the construction and operation phases will produce air pollutants.	<b>No</b> Traffic levels are not anticipated to create air pollution that will exceed permitted thresholds.
6. Will the Project cause noise and vibration or release of light, heat energy or electromagnetic radiation?	<b>Yes</b> Both the construction and operation phases will create noise and vibration and increase lightning in some rural areas.	<b>No</b> Traffic levels are not anticipated to create noise and vibration levels that will exceed permitted thresholds. Mitigation will ensure that any areas of high noise and vibration will be reduced to permitted levels.

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
7. Will the Project lead to risks of contamination of land or water from releases of pollutants onto the ground or into surface waters, groundwater, coastal waters or the sea?	<b>Yes</b> Both the construction and operation phases will have risk of pollutants entering surface and groundwaters.	<b>?</b> The proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines. Further surveys and assessments are required before significant effects can be ruled out. The risk of pollution during the operational phase is expected to be reduced to the improved alignment and cross section as well as the drainage design of the new road.
8. Will there be any risk of accidents during construction or operation of the Project which could affect human health or the environment?	<b>Yes</b> Both the construction and operation phases will have risk of accidents leading to pollutants entering surface and groundwaters.	<b>?</b> The proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines. Further surveys and assessments are required before significant effects can be ruled out. The risk of pollution during the operational phase is expected to be reduced to the improved alignment and cross section as well as the drainage design of the new road.
9. Will the Project result in social changes, for example, in demography, traditional lifestyles, employment?	<b>No</b>	<b>No</b>
10. Are there any other factors which should be considered such as consequential development which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality	<b>?</b> There is potential for consequential development due to improved access to the national road network.	<b>?</b> Further surveys and assessments are required before significant effects can be ruled out.
11. Are there any areas on or around the location which are protected under international or national or local legislation for their ecological, landscape, cultural or other value, which could be affected by the project?	<b>Yes</b> There are a number of European Sites and archaeological and cultural heritage sites of importance in proximity to the proposed road development.	<b>?</b> Although the proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines further surveys and assessments are required before significant effects can be ruled out. The conclusion of the Appropriate Assessment Screening Report is that based in the precautionary principle a Natura Impact Statement is required.

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
12. Are there any other areas on or around the location which are important or sensitive for reasons of their ecology e.g. wetlands, watercourses or other waterbodies, the coastal zone, mountains, forests or woodlands, which could be affected by the project?	<b>Yes</b> As well as the protected sites there are a number of sensitive wetlands and watercourses. The groundwater in the area is also an important resource to be protected from pollution.	<b>?</b> Although the proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines further surveys and assessments are required before significant effects can be ruled out. The conclusion of the Appropriate Assessment Screening Report is that based in the precautionary principle a Natura Impact Statement is required.
13. Are there any areas on or around the location which are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the project?	<b>Yes</b> The habitats within the corridor are suitable for use by species such as bats, badgers, otters, wintering birds and invertebrates such as the marsh fritillary butterfly.	<b>?</b> Although the proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines further surveys and assessments are required before significant effects can be ruled out. The conclusion of the Appropriate Assessment Screening Report is that based in the precautionary principle a Natura Impact Statement is required.
14. Are there any inland, coastal, marine or underground waters on or around the location which could be affected by the project?	<b>Yes</b> The proposed road development is located within a highly karstic area. The majority of the route transects areas of low to high groundwater vulnerability with some areas of extreme groundwater vulnerability.	<b>?</b> Although the proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines further surveys and assessments are required before significant effects can be ruled out. The risk of pollution during the operational phase is expected to be reduced to the improved alignment and cross section as well as the drainage design of the new road.

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
15. Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the project?	<b>Yes</b> The route is largely located in areas classified as being on Moderate Value with a small section of the route in an area of High Value. The route does skirt to the north of the Tusk and Rathcroghan Plateau which is of Exceptional Value and contains the archaeological complex of Rathcroghan.	<b>?</b> The route of the proposed development has been selected to be sympathetic with the receiving environment and to hide the road as much as possible from the Royal site at Rathcroghan and other important archaeological and architectural sites. The final design will be developed to fit with the receiving environment as much as possible. Further surveys and assessments are required before significant effects can be ruled out.
16. Are there any routes or facilities on or around the location which are used by the public for access to recreation or other facilities, which could be affected by the project?	<b>Yes</b> As the route traverses rural countryside populated by numerous lakes, bogs and cultural heritage sites access will be affected as the route will largely be at grade. The existing N5 is a major artery for tourist traffic o the West of Ireland.	<b>No</b> The proposed development will result in the existing N5 which serves the towns of Frenchpark, Bellanagare, Tusk and Strokestown as well as the numerous archaeological sites associated with Rathcroghan being a much quieter and safer route for the public. Further surveys and investigations will be required to identify existing public access routes affected by the new route and identify possible ameliorative measures.
17. Are there any transport routes on or around the location which are susceptible to congestion or which cause environmental problems, which could be affected by the project?	<b>Yes</b> The existing N5 is susceptible to traffic congestion.	<b>Yes</b> This section of the existing N5 has been identified as a bottleneck on the N5 route from Dublin to the twinned hubs of Castlebar and Ballina. The proposed route will result in less congestion and the removal of traffic from the towns along the route.
18. Is the project in a location where it is likely to be highly visible to many people?	<b>Yes</b>	<b>No</b> The receiving environment is a rural area with sparse development and local population.

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
19. Are there any areas or features of historic or cultural importance on or around the location which could be affected by the project?	<b>Yes</b> The area is rich in archaeology with 7 key sites identified in the study area. The most significant of these sites Rathcroghan is one of four major royal sites in ancient Ireland and today is represented as an archaeological complex of over 100 monuments, set in a rural pastoral landscape, located to the north-west of the village of Tulsk in County Roscommon. This complex of nationally important monuments has been included on the tentative list as part of a submission of the Royal Sites of Ireland for consideration as a UNESCO World Heritage Site.	<b>Yes</b> Consultations on the Route Selection have been ongoing with the National Monuments Service and the Department of Arts, Heritage and the Gaeltacht for a number of years and will continue throughout the environmental assessment of the proposed development.
20. Is the project located in a previously undeveloped area where there will be loss of greenfield land?	<b>Yes.</b> Yes it is located in a rural part of County Roscommon.	<b>?</b> Further surveys and investigations will be required to identify potential effects of new route on land uses and identify possible ameliorative measures. Based on current information significant effects cannot be ruled out.
21. Are there existing land uses on or around the location e.g. homes, gardens, other private property, industry, commerce, recreation, public open space, community facilities, agriculture, forestry, tourism, mining or quarrying which could be affected by the project?	<b>Yes</b> The project will involve the acquisition of both land and property as part the CPO.	<b>Yes.</b> It is likely that the proposed development will result in some property acquisition as well as significant acquisition of agricultural land and forestry. Based on current information significant effects cannot be ruled out.



Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
22. Are there any plans for future land uses on or around the location which could be affected by the project?	No	No
23. Are there any areas on or around the location which are densely populated or built-up, which could be affected by the project?	No	No
24. Are there any areas on or around the location which are occupied by sensitive land uses e.g. hospitals, schools, places of worship, community facilities, which could be affected by the project?	<b>Yes</b> There are a number of schools and churches identified adjacent to the road corridor. None are within the road corridor.	<b>No</b> A number of schools and churches are located either in proximity to the proposed road development or along the existing N5 and will be affected in either a positive or negative manner. Studies will be required to identify routes to these community facilities to ensure access is provided.
25. Are there any areas on or around the location which contain important, high quality or scarce resources e.g. groundwater, surface waters, forestry, agriculture, fisheries, tourism, minerals, which could be affected by the project?	<b>Yes</b> The road crosses a number of salmonid watercourses and is adjacent to a number of lakes. Groundwater is a major source of drinking water in County Roscommon with a number of Group Water Schemes in the vicinity of the proposed road development and it is expected that there will also be a number of private drinking wells.	<b>?</b> Although the proposed road development will be designed and constructed in accordance with the NRA EACG and other best practice guidelines further surveys and assessments are required before significant effects can be ruled out. The risk of pollution during the operational phase is expected to be reduced to the improved alignment and cross section as well as the drainage design of the new road.
26. Are there any areas on or around the location which are already subject to pollution or environmental damage e.g. where existing legal environmental standards are exceeded, which could be affected by the project?	No	No

Questions to be Considered For further guidance on factors to be considered see the more detailed questions listed in the Scoping Guidance	Yes / No / ? Briefly Describe	Is this likely to result in a significant effect? Yes/No/? – Why?
27. Is the project location susceptible to earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions e.g. temperature inversions, fogs, severe winds, which could cause the project to present environmental problems?	<b>No</b>	<b>No</b>

## **APPENDIX 2**

### **EIA Screening Manager's Order**



Roscommon County Council

Order No: R/39/15

**Subject: N5 Ballaghaderreen to Scramoge Road Project - Accept the findings of the Environmental Impact Assessment (EIA).**

ORDER: By virtue of the powers vested in me by the Local Government Acts, 1925 to 2014,

IT IS HEREBY ORDERED that....

Pursuant to Section 50(1) of the Roads Act, 1993-2015 as amended by the European Communities (Environmental Impact Assessment) Regulations 1989 to 2006, and having regard to the criteria specified for the purposes of Article 27 of the European Communities (Environmental Impact Assessment) Regulations 1989, it is the decision of Roscommon County Council that, in the absence of additional surveys, investigations and assessments, the N5 Ballaghaderreen to Scramoge Road Project – as described in, and for the reasons set out in the N5 Ballaghaderreen to Scramoge Road Project Environmental Impact Assessment Screening Report (June 2015) – is likely to have significant effects on the environment.

Signed by me at the Courthouse, Roscommon on this                      day of June, 2015.

  
A/Director of Services



## **APPENDIX 3**

### **Drawings**







