

i. Preface

THIS NATURA IMPACT ASSESSMENT REPORT CONSISTS OF THE FOLLOWING DOCUMENTS:

Volume 1

❖ MAIN REPORT

Volume 2

❖ Appendices

- 1) A Description of the proposed road development (As extracted from Chapter 4 of the Environmental Impact Assessment Report);
- 2) Outline Erosion & Sediment Control Plan;
- 3) Invasive Alien Species Management Plan.
- 4) Appropriate Assessment Screening Decision;

Volume 3

❖ Figures

Document Control

Status	Issued For	Undertaken By			Client Checking and Formatting		
		Signed	Date	Approved	Signed	Date	Approved
FINAL	Publication	JH	February 2019	PR	FM	February 2019	EC

ii. Compilation

This Natura Impact Statement (NIS) has been prepared by McCarthy, Keville O'Sullivan Planning & Environmental Consultants Ltd. on the behalf of Sligo County Council and under the Project Management of the Sligo TII National Roads Project Office. It has been prepared to inform the Appropriate Assessment process for the N16 Lugatober (Drumkilsellagh to Lugnaqall) proposed road development.



iii. ADDITIONAL INFORMATION

Additional Information not included in this NIS, but which may be made available to interested parties includes *inter-alia*:

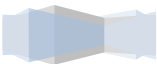
- Various Chapters as required of the N16 Lugatober (Drumkilsellagh to Lugnaqall) Environmental Impact Assessment Report, including but not limited to the following:
 - Chapter 3, Consideration of Alternatives;
 - Chapter 7, Noise & Vibration;
 - Chapter 8, Air Quality & climate Change;
 - Chapter 9, Biodiversity;
 - Chapter 11, Hydrology & Hydrogeology;
 - Chapter 12, Landscape & Visual;
- N16 Sligo to County Boundary Route Selection Report (2017)¹

¹ <http://www.sligococo.ie/N16/RouteSelectionReport/>





iv. MAIN REPORT



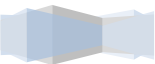
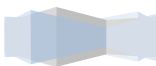


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1 Introduction

1.1 Background

The assessment material contained within this Natura Impact Statement (NIS) has been prepared by McCarthy Keville O’Sullivan Ltd. as appointed by Sligo County Council.

It has been prepared in order to provide the information necessary to allow the competent authority to conduct an Appropriate Assessment in accordance with Part XAB of the Planning and Development Acts 2000 to 2018 and the requirements of Article 6(3) of the Habitats Directive (Directive 92/43) and pertaining to the proposed N16 Lugatober (Drumkilsellagh to Lugnagall) Road Project, Co. Sligo.

The project has been subject to the Appropriate Assessment screening process, which is contained within Volume 2 (Appendices) of this Report.

1.2 Appropriate Assessment Methodology

This document was prepared in accordance with the European Commission guidance document *Assessment of Plans and Projects Significantly affecting Natura 2000 Sites: Methodological Guidance on the provisions of Article 6(3) and 6(4) of the Habitats Directive 92/43/EEC (EC, 2001)* and the Department of the Environment’s *Guidance on the Appropriate Assessment of Plans and Projects in Ireland* (December 2009, amended February 2010).

In addition to the guidelines referenced above, the following relevant guidance was considered in preparation of this report:

1. DoEHLG (2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government;
2. European Communities (2000) Managing Natura 2000 Sites: the provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
3. Directive 92/43/EEC, Office for Official Publications of the European Communities, Luxembourg. European Commission;
4. EC (2007) Guidance document on Article 6(4) of the ‘Habitats Directive’ 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative reasons of overriding public interest, compensatory measures, overall coherence, opinion of the commission. European Commission;
5. EC (2013) Interpretation Manual of European Union Habitats. Version EUR 28. European Commission

Firstly, in Section 2 of the report, a consolidated project description is provided, this description is expanded upon in Volume 2 of the NIS (as extracted from Chapter 4 of the EIAR).

Following on from this in Section 3, the Baseline environment is described with respect to the Qualifying Interests/Special Conservation Interests (QIs & SCIs) of the “screened in” European Sites with subsequent assessment of identified potential pathways for effects on the Qualifying Interests/Special Conservation Interests provided in Section 4. The assessment takes into consideration the conservation objectives and associated targets and attributes for the relevant Qualifying Interests/Special Conservation Interests.

The assessment of potential adverse effects follows the precautionary principle as prescribed in Article 191 of the Treaty on the Functioning of the European Union (EU). It aims at ensuring a higher level of environmental protection through preventative decision-taking in the case of risk and underpins the Habitats Directive (DoEHLG, 2010). The precautionary principle is the underlying concept of sustainable development which implies that prudent action be taken to protect the environment even

in the absence of scientific certainty (DoEHLG, 2010). Potential adverse effects are assessed in view of best scientific knowledge, on the basis of objective information in relation to the proposed road development including the proposed avoidance, reduction and preventive measures.

Following the assessment of potential adverse effects on a European Site resulting from the project itself, a further assessment of the potential for effects when the proposed road development is considered cumulatively and in combination with other plans or projects is made in Section 5.

Finally, in Section 6 a concluding statement is made. This includes a summary of the results of the assessment along with a checklist that demonstrates the lack of adverse effects on the integrity of any European Site (limited to the Conservation Objectives of the site) (as per Box 10 of EC, 2002). As per EC, 2002, the meaning of integrity is defined as follows:

The integrity of a site involves its ecological functions. The decision as to whether it is adversely affected should focus on and be limited to the site's conservation objectives' (MN2000, paragraph 4.6(3)).

1.3 Screening Summary and Competent Authority

As already outlined, the project has been subject to the Appropriate Assessment screening process which based on the contents of a technical report prepared by McCarthy Keville O'Sullivan concluded that:

"It cannot be excluded beyond reasonable scientific doubt, in view of best scientific knowledge on the basis of objective information and in light of the conservation objectives of the relevant European sites, that the proposed development, individually or in combination with other plans and projects, would have a significant effect on the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Sligo/Leitrim Uplands SPA, Cummeen Strand SPA (004035) and Drumcliff Bay SPA"

As a result, an Appropriate Assessment is required and a Natura Impact Statement shall be prepared in respect of the proposed development. "

On this basis, Sligo County Council determined that an Appropriate Assessment was required in order to assess the implications of the project on those sites described above, in view of the relevant conservation objectives.

In accordance with section 177AE of the Planning and Development Act, the County Council shall prepare, or cause to be prepared, a Natura Impact Statement and shall apply to An Bord Pleanála for approval.



2 Description of the Project

2.1 Site Location

Sligo County Council is currently planning a 2.54km upgrade of the N16 National Primary Route, between the townlands of Drumkilsellagh and Lugnagall and occurring predominately within the townland of Lugatober. The project location is depicted on Figure 1.0 contained within Volume 3 of this NIS. The project will remove a number of substantially deficient bends on this section of the route and in so doing, will improve aspects such as journey times, safety, sight distance, cross sectional width and drainage.

2.2 Description of the Development

The Physical Characteristics of the proposed road development are contained within the townlands of Drumkilsellagh, Doonally (ED Drumcliff East), Castlegal (ED Glencar), Drum East, Lugatober (occurring predominately within), Collinsford and Lugnagall. The detailed description of the proposed road development is provided in Chapter 4 of the EIAR, which for reference purposes has been provided in Volume 2 (Appendices) and Volume 3 (Figures) of this NIS. The outline description of the proposed road development is as follows:

- Circa 2.54km of Realignment to the existing N16 National Primary Route (c. 0.79km online and c. 1.75km offline);
- Junction Improvements including:
 - One At Grade Roundabout;
 - Six Simple T Junctions, including two Right/Left Staggered T Junctions;
- Circa 1.5km of realignment to the existing local road network (tie-in works);
- Three Direct Access connections to the National Primary network;
- Circa 1.5km of Vulnerable Road Users (Unsegregated cycle and pedestrian) tracks located predominately with the mainline verge space, interlinking as necessary with alternative offline routes;
- One Vulnerable Road Users Subway underpass;
- One River/Stream Clear Span Structure;
- Culverts and associated diversions of existing minor watercourses and drainage ditches;
- All the necessary drainage works associated with the *Proposed Road Development*;
- The diversion of services and utilities;
- Earthworks operations;
- One no. steepened cut side slope in the townland of *Lugatober*;
- One no. Soil Repository/Borrow Pit;
- Environmental mitigation works;
- The other consequential construction works necessary in order to complete the project.



3 Baseline Ecology of the Sites

In relation to Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC the screening assessment identified a potential pathway for indirect effects on the marine/surface water dependent Qualifying Interests. This was identified in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development. The Qualifying Interests with the potential to be impacted via the identified pathway include:

- Estuaries (1130);
- Mudflats and sandflats not covered by seawater at low tide (1140);
- *Petromyzon marinus* (Sea Lamprey) [1095];
- *Lampetra fluviatilis* (River Lamprey) [1099];
- *Phoca vitulina* (Harbour seal) [1365].

In relation to Sligo/Leitrim Uplands SPA the screening assessment identified a potential pathway for impact on breeding Chough and Peregrine populations based on proximity.

In relation to Cummeen Strand SPA and Drumcliff Bay SPA a potential pathway for indirect effects on the surface water dependent Qualifying Interests ‘Wetland and Waterbirds [A999]’ was identified, in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development.

The sections below describe the details of the desk study and field surveys undertaken to inform this assessment regarding the “Screened in” Sites and associated Qualifying Interests/Special Conservation Interests.

3.1 Desk Study

1.1.1 EPA River Catchments & Watercourses

The indirect pathway for impact on Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Drumcliff Bay SPA is via surface waters.

The Proposed Road development site overlaps with two EPA River Catchments Bonet_SC_030 and Drumcliff_SC_010 (<https://gis.epa.ie/EPAMaps/>). The following section provide an overview of the watercourses providing connectivity to European sites in each catchment.

1.1.1.1 Bonet SC 030

The southern tie in, attenuation pond and associated discharge to the Willsborough Stream occur in the Bonet_SC_030 river catchment. The surface waterbodies in this catchment (i.e. Willsborough Stream) provides hydrological connectivity between the proposed road development and Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Cummeen Strand SPA. (>4.5km downstream via surface water).

The Willsborough Stream is not traversed by the proposed project but surface water draining from the new road will be attenuated and discharged to this watercourses via a drainage ditch which will run along the boundary of improved agricultural fields. The watercourse is classified as an **Upland/eroding River (FW1)**. It is approximately 6-8m wide and dominated by a substrate of gravels, cobbles, bedrock and boulders.

1.1.1.2 Drumcliff SC 010

The remainder of the project is located within the Drumcliff_SC_010 river catchment. The watercourses in this catchment include the Tully Stream and tributaries of the Drumcliff River (i.e. Lugatober Stream, Collinsford Stream, Lugnaqall Stream and drainage ditches). The watercourses

provide hydrological connectivity between the proposed road development and Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC and Drumcliff Bay SPA (>5.09km downstream via surface water).

The Tully Stream consists of an **Upland/eroding river (FW1)**. During the May site visit the watercourse was approximately 2-3m wide, 10-20cm deep, with a substrate dominated by gravels, small cobbles and occasional boulders. The river was dominated by a series of small riffles and glides with some pools and natural bends. **Treelines (WL2)** dominated by Sycamore (*Acer pseudoplatanus*) and Ash (*Fraxinus excelsior*) occur along the extent of the watercourse.

The Lugatober stream is a tributary of the Drumcliff River. At the proposed crossing location, the stream banks have been damaged by livestock. The watercourse is reminiscent of a drainage ditch at this location with little perceivable flow and a benthic substrate dominated by silt. Instream/bankside vegetation included floating sweet-grass (*Glyceria fluitans*), foals watercress (*Apium nodiflorum*), soft rush (*Juncus effuses*), yellow iris (*Iris pseudacorus*) and duckweed (*Lemna sp.*). Downstream of the proposed road development area the stream enters a steep sided natural cut in the valley and it has a more natural flow regime characterised by small riffles and pools.

A small stream (i.e. Collinsford stream) categorised as and **Upland/eroding river (FW1)** was recorded in the woodland area. The stream is a tributary of the Drumcliff River. During the May site visit the watercourse was approximately 0.5-1m wide and 10-15cm deep, with a substrate dominated by gravel and small cobbles. Bankside flora included yellow iris, water mint (*Mentha aquatica*), cuckoo flower, floating sweet grass (*Glyceria fluitans*), Hard rush (*Juncus inflexus*) and Soft Rush (*Juncus effuses*).

The Lugnagall Stream is culverted under the existing N16. At the proposed crossing point the watercourse is modified and reminiscent of a drainage ditch. However it is still best classified as an **Upland/eroding River (FW1)**. The watercourse is approximately 1-1.5m wide and 20cm deep, with a substrate dominated by silt. Downstream of the N16 the watercourse is shrouded by willows while upstream there are recently cleared section and areas shrouded in **Scrub (WS1)**.

The Tully Stream will be crossed by a Clear Span Structure. The Lugatober Stream, Collinsford Stream and Lugnagall Stream will be crossed by a box culvert. All other crossing points (i.e. drainage ditches) will be crossed by pipe culverts.

1.1.2 Annex I habitats of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

1.1.2.1 Estuaries

The extent of this habitat within Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC is estimated as 1258ha using OSI data and the defined Transitional Water Body area under the Water Framework Directive. This extent is illustrated on Map 3 of the site-specific conservation objective document (NPWS 2013).

The habitat occurs a minimum distance of 4.5km downstream of the proposed road development.

1.1.2.2 Mudflats and sandflats not covered by seawater at low tide (1140)

The extent of this habitat within Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC is estimated as 2288ha. This extent is illustrated on Map 4 of the site-specific conservation objective document (NPWS 2013).

The habitat occurs a minimum distance of 4.5km downstream of the proposed road development.

1.1.3 Annex II species of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

1.1.3.1 *Petromyzon marinus* (Sea Lamprey) [1095]

This SAC only covers marine/estuarine habitat and it is not anticipated that it contains suitable spawning or nursery habitat (NPWS 2013). Migrating adult lamprey pass through the site en route

to/from the Garavogue River, which flows out of Lough Gill. Lough Gill SAC (site code: 001976), which is adjacent to this SAC, encompasses the freshwater elements of river lamprey habitat. Potential barriers for migrating lamprey include anthropogenic physical barriers and chemical barriers e.g. oxygen depletion or discharge of noxious pollutants.

The proposed road development is located a minimum distance of 4.5km from suitable marine/estuarine habitat utilised by migrating Sea Lamprey within the SAC.

1.1.3.2 *Lampetra fluviatilis* (River Lamprey) [1099]

This SAC only covers marine/estuarine habitat and it is not anticipated that it contains suitable spawning or nursery habitat (NPWS 2013). Migrating adult lamprey pass through the site en route to/from the Garavogue River, which flows out of Lough Gill. Lough Gill SAC (site code: 001976), which is adjacent to this SAC, encompasses the freshwater elements of river lamprey habitat. Potential barriers for migrating lamprey include anthropogenic physical barriers and chemical barriers e.g. oxygen depletion or discharge of noxious pollutants.

The proposed road development is located a minimum distance of 4.5km from suitable marine/estuarine habitat utilised by migrating River Lamprey within the SAC.

1.1.3.3 *Phoca vitulina* (Harbour seal) [1365]

The proposed road development is located a minimum distance of 4.5km from suitable marine/estuarine habitat utilised by Harbour seal within the SAC (See map 8 of the NPWS Conservation objective document, 2013).

The proposed road development does not have the potential to impact on terrestrial, breeding or resting habitat for the species.

The proposed road development is located a minimum distance of 4.5km from suitable marine/estuarine habitat utilised by this species within the SAC.

1.1.4 Wetlands of Drumcliff Bay SPA

The following relevant extracts have been gleaned from the NPWS site synopsis and Natura 2000 Data Form for the SPA.

*“Drumcliff Bay, Co. Sligo is the most northerly of Sligo Bay’s three estuarine inlets. The bay comprises an inner area of sheltered estuarine habitat and an outer area of shallow seawater. It extends 9 km east to west from Drumcliff village to Raghly Point. Drumcliff Bay is the estuary of the Drumcliff River, a substantial river flowing from Glencar Lough to the east. The inner part of Drumcliff Bay is sheltered by a sandy/grassy peninsula extending north from Rosses Point. The northern part of the bay is fringed by fine sandy beaches -Ballygilgan Strand, Lissadell Strand and Ardtermon Strand. Salt marsh occurs in the most sheltered areas and at low tide, extensive inter-tidal flats are exposed. A bed of Dwarf Eelgrass (*Zostera noltii*) occurs near the south-eastern corner of the bay.*

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Sanderling and Bar-tailed Godwit. The E.U. Birds Directive pays particular attention to wetlands and, as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds”

1.1.5 Wetlands of Cummeen Strand SPA

The following relevant extracts have been obtained from the NPWS site synopsis and Natura 2000 Data Form for the SPA.

“Cummeen Strand is a large shallow bay stretching from Sligo Town westwards to Coney Island. It is one of three estuarine bays within Sligo Bay and is situated between Drumcliff Bay to the north and Ballysadare Bay to the south. The Garavogue River flows into the bay and forms a permanent channel. At low tide, extensive sand and mud flats are exposed. These support a diverse macro-invertebrate fauna which provides the main food supply for the wintering waterfowl. Invertebrate species such as Lugworm (*Arenicola marina*), Ragworm (*Hediste diversicolor*), Cockles (*Cerastoderma edule*), Sand Mason (*Lanice conchilega*), Baltic Tellin (*Macoma balthica*), Spire Shell (*Hydrobia ulvae*) and Mussels (*Mytilus edulis*) are frequent. Of particular note is the presence of eelgrass (*Zostera noltii* and *Z. angustifolia*) beds, which provide a valuable food stock for herbivorous wildfowl. The estuarine and intertidal flat habitats are of conservation significance and are listed on Annex I of the E.U. Habitats Directive. Areas of salt marsh fringe the bay in places and provide roosting sites for birds during the high tide periods. Sand dunes occur at Killaspug Point and Coney Island, with a shingle spit at Standalone Point near Sligo Town.

The site is a Special Protection Area (SPA) under the E.U. Birds Directive, of special conservation interest for the following species: Light-bellied Brent Goose, Oystercatcher and Redshank. The E.U. Birds Directive pays particular attention to wetlands, and as these form part of this SPA, the site and its associated waterbirds are of special conservation interest for Wetland & Waterbirds.”

3.2 Breeding Bird Populations of Sligo/Leitrim Uplands SPA

The SPA is designated for reproducing populations of Chough and Peregrine. The following sections provide details of the desk study assessment with regard to both species.

1.1.6 Bird Atlas 20017 -2011

Bird Atlas 2007-11: The breeding and wintering birds of Britain and Ireland’ (Balmer et al., 2013) is the most recent comprehensive work on wintering and breeding birds in Ireland.

The study area lies within two hectads, G73 and G74. Table 3-1 lists the records for Peregrine and Chough.

Table 3-1: Atlas Records for Peregrine and Chough from Hectads G73 & G74

Species Name	Breeding		Wintering		Conservation Status
	G73	G74	G73	G74	
Peregrine (<i>Falco peregrinus</i>)	No	Prob	No	Yes	BD Annex I
Chough (<i>Pyrrhocorax pyrrhocorax</i>)	Non-breeding	Conf	Yes	Yes	BD Annex I

BD = Birds Directive; RL= BoCCI Red List; Seen = recorded; Breed = breeding; Non-B = non-breeding; Poss = possible breeding;

Prob = probable breeding; Conf = confirmed breeding

1.1.7 Chough of Sligo/Leitrim Upland SPA

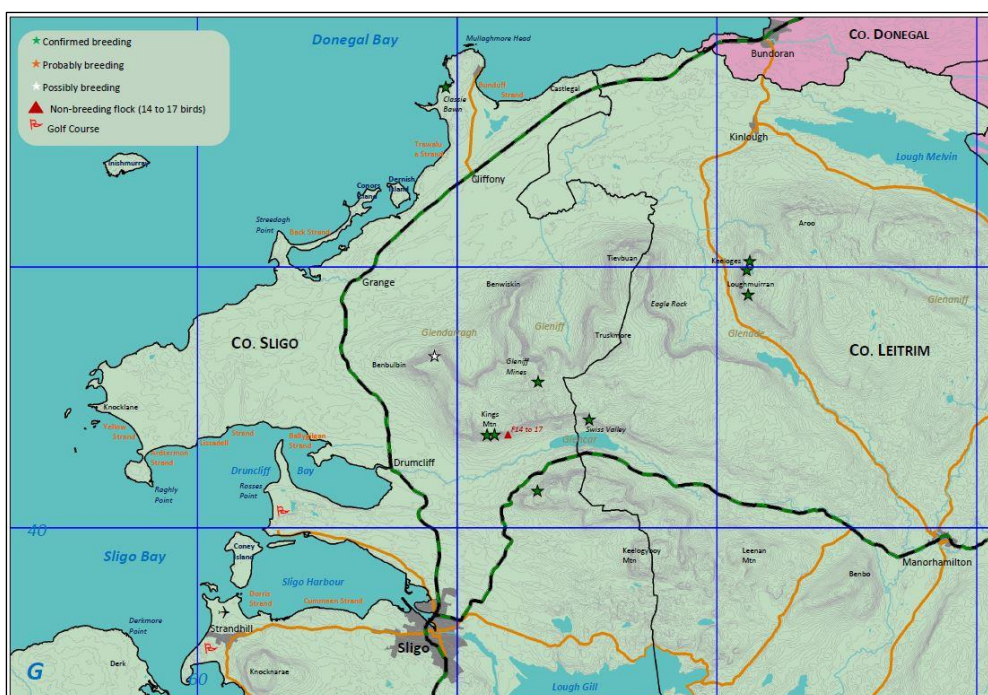
The majority of breeding chough within the SPA are found along the south facing cliffs of King’s Mountain. Trewby et.al (2010) found that 84% of the Chough numbers recorded within the SPA occur along the stretch from Glendarragh (Benbulben) to Glencar. Breeding within the SPA appeared to be associated with activity radiating out from the Kings Mountain communal roost which is located more



than 2km from the proposed road development. Low usage for some parts of the SPA – Cope’s Mountain & Gleniff – could be explained by small numbers of birds (pairs) only being present seasonally (breeding season) (Trewby et.al (2010)).

The most recent distribution of breeding chough within the SPA, as determined by Trewby et al 2010 is shown in Plate 3-1 below. The closest suitable breeding habitat for chough occurs on the cliffs of Cope’s Mountain approximately 500m east of the northern tie in with the existing N16. Chough tend to utilise the same nesting area in subsequent years and the same nest site was recorded at Cope’s Mountain in both 2003 and 2009. The nest site is in a hidden canyon on the northern cliff face of the Mountain.

Plate 3-1 Distribution of breeding chough in north Co Sligo (Trewby et al 2010)



3.3 Field Surveys

1.1.8 Breeding Bird Surveys

1.1.8.1 Methods

The methodology employed for the identified study areas was as detailed in ‘Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes, National Roads Authority (NRA, 2009)’.

The surveys focused on potential habitat, within the land take boundary, for sensitive breeding bird species listed on Annex I of the EU Birds Directive and Birds listed on the Birds of Conservation Concern in Ireland (BoCCI) Red and Amber list (Colhoun & Cummins, 2013).

Based on the results of the multidisciplinary walkover survey, no potential for significant impact on important assemblages of birds was identified. However, taking a precautionary approach, and given that the development site occurs adjacent to the Sligo Leitrim Uplands SPA, bird surveys were conducted on the 24th and 25th of May 2018, 28th and 29th of June and 30th and 31st of July 2018.

A ‘scaled-down’ survey protocol, based upon the specifications of the Common Bird Census (CBC) methodology was utilised to fulfill the survey objectives.



The survey was also consistent with the recommended Chough survey techniques described in Gilbert *et al.* (1998). This guidance recommends two survey visits between May and June. The surveys included walked transects with regular stops to listen and scan the area for Chough.

The survey also included an assessment of habitat suitability for nesting chough and peregrine within and in proximity to the land acquisition boundary

1.1.8.2 Results

Chough

There is no suitable nesting habitat for chough within the land acquisition boundary. The closest suitable breeding habitat for chough occurs on the cliffs of Cope's Mountain approximately 500m east of the northern tie in with the existing N16. Chough have been confirmed breeding in this area in the past (See Plate 3-1 above).

Chough were not recorded during the dedicated surveys undertaken during the 2018 breeding season. In addition the species was not incidentally recorded during any additional survey work undertaken between 2017 and 2018.

The habitats within the land acquisition are suboptimal for foraging chough being dominated by improved and semi-improved pasture. Many of the fields are utilised for silage production and have a sward which is unsuitable for foraging chough. The species requires a short sward and feed mostly on insect's insects and their larvae, worms and other subterranean invertebrates, using their curved bills to probe the soil.

As per the NPWS Site Synopsis for the SPA, suitable foraging habitat utilised by chough within the SPA occurs on the steep slopes below the cliffs.

Peregrine

There is no suitable nesting habitat for Peregrine within the land acquisition boundary. The species was not recorded utilising habitats within the development footprint during the 2018 breeding bird surveys or during any additional survey conducted during the 2017-2018 survey period.

The closest suitable breeding habitat for Peregrine occurs on the cliffs of Cope's Mountain approximately 500m east of the northern tie-in with the existing N16. This area is traditionally utilised by one breeding pair of Peregrine.

David McNicholas of McCarthy Keville O'Sullivan has voluntarily monitored the pair in recent years. Confirmed breeding success was recorded for the 2017 breeding season (one chick fledged) and possible breeding success was recorded for the 2018 season.

1.1.9 Invasive Alien Species (IAS)

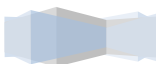
During field surveys, observations of Invasive Alien Species (IAS) listed under the Third Schedule of the European Communities Regulations 2011 (S.I. 477 of 2015) were recorded. Other than Third schedule species, no non-native invasive species were recorded that could potentially impact the integrity of European sites.

Regulations 49 and 50 of these Regulations include legislative measures to deal with the dispersal and introduction of invasive alien species. Regulation 50 has not yet been commenced. IAS are also addressed by EU Regulation 1143/2014, which seeks to address the problem of invasive alien species in a comprehensive manner so as to protect native biodiversity and ecosystem services, as well as to minimize and mitigate the human health or economic impacts that these species can have.

The non-native invasive species Japanese Knotweed (*Fallopia japonica*) was recorded on the proposed road development in the townland of Lugatober (Grid Ref 571878 841098). This infestation consisted of a linear strip (approximately 20m) recorded in the road side hedgerow.

A second infestation was recorded in the townland of Lugnaqall (Grid Ref 572380, 841629). The infestation consisted of two small stands which measures approximately 2m x 2m.

There was also signage present at the Southern tie-in (Grid Ref 571723, 839182) which indicated that Japanese knotweed had been recorded and treated in the past. No evidence of Knotweed was recorded at this location during the 2017 and 2018 surveys.



4 Assessment of Potential Impacts

4.1 Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC

1.1.10 Review of Conservation Objectives

The relevant QIs and the associated conservation objectives of the site are presented in Table 4-1.

The associated Target and Attributes for the relevant habitats and species as described in the Conservation objective document were reviewed and considered in this assessment.

Table 4-1: *Qualifying Interest and Conservation Objectives (Version 01, 2013)*

Qualifying Interest	Conservation Objective (Version 01, 2013)
Estuaries [1130]	<i>To maintain the favourable conservation condition of Estuaries in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC.</i>
Mudflats and sandflats not covered by seawater at low tide [1140]	<i>To maintain the favourable conservation condition of Mudflats and sandflats not covered by seawater at low tide in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC</i>
<i>Petromyzon marinus</i> (Sea Lamprey) [1095]	<i>To restore the favourable conservation condition of Sea Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC</i>
<i>Lampetra fluviatilis</i> (River Lamprey) [1099]	<i>To maintain the favourable conservation condition of River Lamprey in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC</i>
<i>Phoca vitulina</i> (Harbour Seal) [1365]	<i>To maintain the favourable conservation condition of Harbour Seal in Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC</i>

1.1.11 Review of site specific pressures and threats

As per the Natura 2000 Data Form, the site-specific threats, pressures and activities with potential to impact on the SAC are as follows:

- G02.01 - golf course (medium importance);
- G01.02 - walking, horse riding and non-motorised vehicles (medium importance);
- A02.01 - agricultural intensification (medium importance);
- J02.11.01 - dumping, depositing of dredged deposits – (low importance);
- I01 - invasive non-native species - (medium importance);
- D03.01 - port areas - (medium importance);
- G05.01 - trampling, overuse - (low importance);
- E01.03 - dispersed habitation - (medium importance);
- E03.03 - disposal of inert materials - (low importance);
- J01.01 - burning down - (low importance);
- G01.03.02 - off-road motorized driving - (medium importance);
- J02.12.01 - sea defence or coast protection works, tidal barrages - (low importance);
- G02.08 - camping and caravans - (low importance);
- F01.01 - intensive fish farming, intensification – (high importance);
- D03 - shipping lanes, ports, marine constructions - (medium importance).



1.1.12 Identified Pathway for Impact

The proposed road development is located 3.3km west of the SAC but has hydrological connectivity via tributaries of the Drumcliff River (> 5.09km downstream via surface water) and via the Willsborough Stream (>4.5km downstream via surface water). The dominant habitats within the SAC are estuaries and intertidal sand and mud flats.

The Screening Assessment identified the potential for indirect impact on the marine/surface water dependent Qualifying Interests in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development. The relevant Qualifying Interests include:

- Estuaries (1130);
- Mudflats and sandflats not covered by seawater at low tide (1140);
- *Petromyzon marinus* (Sea Lamprey) [1095];
- *Lampetra fluviatilis* (River Lamprey) [1099];
- *Phoca vitulina* (Harbour seal) [1365]

4.2 Cummeen Strand SPA

1.1.13 Review of Conservation Objectives

The relevant QI and the associated conservation objective of the site are presented in Table 4-2. The associated Target and Attributes for the *Wetland and Waterbirds* as described in the Conservation Objective Document were reviewed and considered in this assessment.

Table 4-2: *Qualifying Interest and Conservation Objectives (Generic Version 01, 2013)*

Special Conservation Interest	Conservation Objective (Version 01, 2013)
Wetland and Waterbirds [A999]	To maintain the favourable conservation condition of wetland habitat in Drumcliff Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

1.1.14 Review of site specific pressures and threats for Cummeen Strand SPA

As per the Natura 2000 Data Form, the site-specific threats, pressures and activities with potential to impact on the SPA are as follows:

- E02 - Industrial or commercial areas (high importance);
- D01.02 - Roads, motorways (medium importance);
- H - Pollution (medium importance);
- F01 - Marine and Freshwater Aquaculture (high importance);
- A08 - Fertilisation (medium importance);
- E01 - Urbanised areas, human habitation (medium importance);
- D03.02 - Shipping lanes (high importance);
- J02.01.02 - Reclamation of land from sea, estuary or marsh (high importance);
- F02.03 -Leisure fishing (low importance).

1.1.15 Identified Pathway for Impact

The Willsborough Stream provides hydrological connectivity between the proposed road development and Cummeen Strand SPA. (>4.5km downstream via surface water).

Taking a precautionary approach and given that the SPA is located hydrologically downstream a potential pathway for indirect effects on the surface water dependent Qualifying Interest 'Wetland

and Waterbirds [A999]’ was identified, in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development.

4.3 Drumcliff Bay SPA

1.1.16 Review of Conservation Objectives

The relevant SCI and the associated conservation objective of the site are presented in Table 4-3. The associated Target and Attributes for the *Wetland and Waterbirds* as described in the Conservation objective document were reviewed and considered in this assessment.

Table 4-3: *Qualifying Interest and Conservation Objectives (Generic Version 01, 2013)*

Special Conservation Interest	Conservation Objective (Version 01, 2013)
Wetland and Waterbirds [A999]	To maintain the favourable conservation condition of wetland habitat in Drumcliff Bay SPA as a resource for the regularly occurring migratory waterbirds that utilise it.

1.1.17 Review of site specific pressures and threats for Drumcliff Bay SPA

As per the Natura 2000 Data Form, the site-specific threats, pressures and activities with potential to impact on the SPA are as follows:

- E01.03 - dispersed habitation (medium importance);
- A04 – grazing – (high importance);
- A08 – fertilisation – (medium importance);
- G01.02 - walking, horseriding and non-motorised vehicles – (low importance);
- F01 - marine and freshwater aquaculture – (high importance).

1.1.18 Identified Pathway for Impact

The proposed road development is located 4.1km west of the SPA but has hydrological connectivity via tributaries of the Drumcliff River (> 5.09km downstream via surface water).

Taking a precautionary approach and given that the SPA is located hydrologically downstream a potential pathway for indirect effects on the surface water dependent Qualifying Interest ‘Wetland and Waterbirds [A999]’ was identified, in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development.

4.4 Sligo/Leitrim Uplands SPA

1.1.19 Review of Conservation Objectives for Sligo/Leitrim Uplands SPA

The relevant QI and the associated conservation objectives of the site are presented in Table 4-4.



Table 4-4: Qualifying Interest and Conservation Objectives (Generic Version 06, 2018)

Special Conservation Interest	Conservation Objective (Version 06, 2018)
Peregrine (<i>Falco peregrinus</i>) [A103]	Generic conservation objectives for this site (Version 06, 2018) were reviewed as part of the assessment and are available at www.npws.ie
Chough (<i>Pyrhocorax pyrrhocorax</i>) [A346]	The site-specific conservation objective for this SPA is as follows: <i>'To maintain or restore the favourable conservation condition of the bird species listed as Special Conservation Interests for this SPA'</i>

1.1.20 Review of site specific pressures and threats for Sligo/Leitrim Uplands SPA

As per the Natura 2000 Data Form, the site-specific threats, pressures and activities with potential to impact on the SPA are as follows:

- G02.08 – camping and caravans (medium importance);
- A04.03 - abandonment of pastoral systems, lack of grazing (high importance);
- K01.01 – erosion (high importance);
- C01.03.02 - mechanical removal of peat (low importance);
- I01 – invasive species (low importance);
- C01.01 – sand and gravel extraction (medium importance);
- B01 – forest planting on open ground (high importance);
- G01.02 - walking, horseriding and non-motorised vehicles (medium importance);
- E01.01 – continuous urbanization (high importance);
- G01.04 - mountaineering, rock climbing, speleology (low importance).

1.1.21 Identified Pathway for Impact

The proposed works area is located adjacent to the Sligo/Leitrim Uplands SPA. Taking a precautionary approach, the site was “screened in” based on proximity.

4.5 Impact Assessment

This Natura Impact Statement presents the data and information on the project and provides an analysis of the potential adverse effects on the aforementioned EU designated sites. Potential adverse effects are assessed in view of best scientific knowledge, on the basis of objective information in relation to the proposed road development including the proposed avoidance, reduction and preventive measures that are described in the Outline Erosion and Sediment Control (OESC) Plan (attached as an appendix to this NIS).

1.1.22 Potential for Direct Impacts on the European Sites

There will be no direct effects on the Qualifying Interest of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Drumcliff Bay SPA, Cummeen Strand SPA or Sligo/Leitrim Uplands SPA. These European sites are located entirely outside of the boundary of the proposed road development.



1.1.23 Potential for Indirect Impacts on the European Sites

1.1.23.1 Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA & Drumcliff Bay SPA

The three sites are assessed together because the identified pathway for impact on all three sites is the same.

4.5.1.1.1 *Identified Pathway for Impact -Deterioration of surface water quality*

A potential pathway for indirect effects on the marine/surface water dependent Qualifying Interests of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Drumcliff Bay SPA was identified in the form of deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development.

4.5.1.1.2 *Preventive Measures to Avoid the Identified Impact*

Construction Phase

The pathway that would allow potentially adverse impacts to occur was considered in the design of the project elements. An Outline Erosion and Sediment Control Plan (OESC), which is contained within Volume 2 of this NIS, sets out the environmental management framework to be adhered to during the pre-commencement, construction and operational phases of the development and it incorporates the mitigating principles to ensure that the work is carried out in a way that minimises the potential for any environmental impacts to occur. The OESC has been prepared in accordance with the mitigation measures and commitments made in the Environmental Impact Assessment Report.

The measures described in the OESC avoid potential significant adverse impacts on surface water quality during construction, operation and decommissioning. Post implementation of best practice and preventive measures as described in the OESC, the potential for any effect on the designated sites is negligible.

Operational Phase

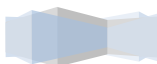
Specific measures to offset potential impacts relating to surface water runoff, during the operation of the road, have been incorporated into the design of the proposed road development. These include the use of penstocks, attenuation systems and hydrocarbon interceptors. Full details are included in the Description of the proposed road development (Contained within Volume 2 of this NIS) and within the Hydrology & Hydrogeology Chapter of the EIAR.

It is noted that the proposed road development will convey traffic diverted off the existing section of N16 road and, given the pollution prevention measures incorporated into the project design will result in a far greater level of ecological protection in relation to water pollution from such traffic during the operational phase of the proposed road development.

4.5.1.1.3 *Summary*

The measures described in the Outline Erosion and Sediment Control Plan (OESC) ensures that the proposed road development does not prevent or obstruct any of the qualifying interests from reaching favorable conservation status as per Article 1 of the EU Habitats Directive. A definition of Favorable Conservation Status is provided below:

*'conservation status of a species means the sum of the influences acting on the species concerned that may affect the long-term distribution and abundance of its populations within the territory referred to in Article 2;
The conservation status will be taken as 'favourable' when:*



- *Population dynamics data on the species concerned indicate that it is maintaining itself on a long-term basis as a viable component of its natural habitats, and*
- *The natural range of the species is neither being reduced nor is likely to be reduced for the foreseeable future, and*

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

Based on the above, it can be concluded in view of best scientific knowledge, on the basis of objective information that the proposed road development will not adversely affect the Qualifying Interests associated with the Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Drumcliff Bay SPA.

1.1.23.2 [Sligo/Leitrim Uplands SPA](#)

4.5.1.1.4 *Chough*

Construction Phase

There is no suitable nesting habitat for chough within the land acquisition boundary. The closest suitable breeding habitat for chough occurs on the cliffs of Cope's Mountain approximately 500m east of the northern tie in with the existing N16. Chough have been confirmed breeding in this area in the past (See Plate 3-1 above).

Chough were not recorded during the dedicated surveys undertaken during the 2018 breeding season. In addition, the species was not incidentally recorded during any additional survey work undertaken between 2017 and 2018. This finding is consistent with literature given that 84% of the Chough numbers recorded within the SPA occur along the stretch from Glendarragh (Benbulbin) to Glencar which is located more than 2km from the proposed road development (Trewby et al 2010)

As per the NPWS Site Synopsis for the SPA, suitable foraging habitat utilised by chough within the SPA occurs on the steep slopes below the cliffs. The habitats within the land acquisition are suboptimal for foraging chough being dominated by improved and semi-improved pasture. Many of the fields are utilised for silage production and have a sward which is unsuitable for foraging chough. Trewby et al (2010) found that 68% of all observations of Chough within the SPA occurred on unimproved, steep, sheep grazed slopes that were typically south facing. The report concluded that low usage for some parts of the SPA – Cope's Mountain & Gleniff – could be explained by small numbers of birds (pairs) only being present seasonally (breeding season). The report also found that all observations of chough recorded in the vicinity of Cope's Mountain between February 2009 and January 2010 occurred within the SPA boundary. This is consistent with the results of the current assessment which found no Chough utilizing habitats within the land acquisition boundary.

As per McGuinness *et al* 2015, Chough predominantly feed within a 300m radius of the nest site and as per the NPWS Site Synopsis suitable foraging habitat utilised by chough occurs on the steep slopes below the cliffs. The proposed road development is located approximately 500m from suitable nesting habitat therefore no loss of habitat within the 300m core foraging buffer is anticipated.

With the exception of the northern tie within the exiting N16, the majority of the new road alignment is located further from the Cope's mountain section of the SPA than the existing N16 and will be buffered from it by extensive networks of Hedgerow, Treeline and Woodland.

No potential for habitat loss, displacement or disturbance to breeding Chough is anticipated as a result of the proposed road development.

Operational Phase

There will be no increase in traffic volumes as a result of the proposed road development. No potential for habitat loss, disturbance or displacement impacts during operation is anticipated.

4.5.1.1.5 Peregrine

Construction Phase

There is no suitable nesting habitat for Peregrine within the land acquisition boundary. The species was not recorded utilising habitats within the development footprint during the 2018 breeding bird surveys or during any additional survey conducted during the 2017-2018 survey period.

The closest suitable breeding habitat for Peregrine occurs on the cliffs of Cope's Mountain approximately 500m east of the northern tie-in with the existing N16. This area is traditionally utilised by one breeding pair of Peregrine.

Literature suggests that breeding peregrines are most likely disturbed by activities taking place above their nest (Herbert & Herbert 1969, Ellis 1982, Hustler 1983, Ratcliffe 1972). The heights of nesting cliffs can therefore be interpreted as distances at which the nearest human activity could occur without incurring serious disturbance (Ruddock et al 2007). Ruddock et al also recommends that the upper limit for passive or static disturbance is 500m 0750. Given that proposed road development is located 500m from suitable nesting habitat within the SPA no significant disturbance or displacement effects are anticipated.

The peregrine is one of several species that can become inured to the effects of human disturbance, as witnessed by its occupation of disturbed nest sites such as working quarries and urban centres (Ruddock et. al 2007). The existing pair breeding on Cope's Mountain are habituated to human activity and it is anticipated that the works associated within the northern tie in will be commensurate with ongoing levels of traffic and agricultural activity in the area. In addition, with the exception of the northern tie within the exiting N16, the majority of the new road alignment is located further from the Cope's mountain section of the SPA than the existing N16 and will be buffered from it by extensive networks of Hedgerow, Treeline and Woodland.

No potential for habitat loss, displacement or disturbance to breeding Peregrine is anticipated as a result of the proposed road development.

Operational Phase

There will be no increase in traffic volumes as a result of the proposed road development. No potential for habitat loss, disturbance or displacement impacts during operation is anticipated.

4.5.1.1.6 Summary

The proposed road development will not prevent or obstruct Chough or Peregrine within the SPA populations from reaching/maintaining favourable conservation status as per Article 1 of the EU Habitats Directive.

Based on the above, it can be concluded in view of best scientific knowledge, on the basis of objective information that the proposed road development will not adversely affect the Special Conservation Interests associated with Sligo/Leitrim Upland SPA.

4.6 Mitigation to Prevent the Spread of Invasive Species

Due to the legislative requirements to control the spread of noxious weeds and non-native invasive plant species, it is important that any activities associated with the planning, construction and operation of national road schemes comply with the requirements of the Wildlife Acts, 1976-2012. Regulations 49 and 50 of the European Communities (Birds and Natural Habitats) Regulations 2011

(S.I. 477 of 2015) include legislative measures to deal with the dispersal and introduction of Invasive Alien Species (IAS), which are listed in the Third Schedule of the regulations.

Regulation 49 deals with the Prohibition on introduction and dispersal of certain species while Regulation 50 relates to Prohibition on dealing in and keeping certain species (Regulation 50 has not yet been commenced). Invasive species are listed under the Third Schedule of the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2015).

The non-native invasive species Japanese Knotweed (*Fallopia japonica*) was recorded on the proposed road development in the townlands of Lugatober and Lugnaqall. There was also signage present at the Southern tie-in (Grid Ref 571723, 839775) which indicated that Japanese knotweed had been recorded and treated in the past (as part of the TII IAPS eradication program). No evidence of Knotweed was recorded at this location during the 2017 and 2018 surveys.

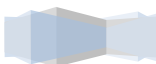
An IAS Management Plan has been prepared (which is contained within Volume 2 of this NIS) in relation to the treatment of the identified stands of Japanese Knotweed (*Fallopia japonica*). The plan has taken consideration of ongoing treatment of Japanese Knotweed which commenced in July 2018 and is scheduled to continue into 2019. The identified infestations, which cannot be avoided, will be subject to deep burial within the proposed borrow pit/soil repository (minimum depth of 5m). Full details of the treatment procedure are described in the IAS Management Plan.

General appropriate spread prevention measures are outlined below.

Control measures for the management of Invasive Species

The following measures address potential impacts associated with the construction phase of the project:

- Any plant or equipment that may have worked in environments where invasive species are present (including but not restricted to zebra mussel *Dreissena polymorpha*, Japanese knotweed *Fallopia japonica*, Indian balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, rhododendron *Rhododendron ponticum*), shall be suitably cleaned by high pressure hose before being employed on site to prevent the spread of invasive species. Water used for this washing process shall always be intercepted and prevented from draining back into watercourses.
- All fill and material sourced or relocated within the site shall be screened at source for the presence of invasive species by a qualified ecologist to prevent the spread of these species within the road corridor. This is in line with the guidance for the control of non-native invasive species set out in the NRA publication '*Guidelines on the Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads*' (NRA, 2010) to be employed by the contractor.
- All planting and landscaping associated with the proposed development shall avoid the use on invasive shrubs such as Rhododendron;
- The treatment and control of invasive alien species will follow guidelines issued by the National Roads Authority – The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads (NRA 2010).



5 Cumulative Impacts

5.1 General

A search and review in relation to plans and projects that may have the potential to result in cumulative and/or in-combination impacts on European Sites was conducted. The assessment focuses on the potential for cumulative in-combination effects on the QIs for which potential pathway for impact were identified as Screening Stage. This included a review of online Planning Registers and served to identify past and future plans and projects, their activities and their predicted environmental effects.

5.2 Plans

The following plans been reviewed and taken into consideration as part of this assessment:

- Sligo County Development Plan 2017-2023

The review focused on policies and objectives that relate to European sites. Policies and objectives relating to transport, were also reviewed, particularly where the policies relate to the preservation of natural heritage. Policies and objectives of particular note include:

O-NR-1 - Undertake programmed improvements to the national road network, including the programme of realignments and upgrades, as set out in Table 8.B and subject to compliance with the Habitats Directive.

5.3 Other Plans & Projects

The following sources of information were consulted to establish if there are any ...existing and/or approved projects^[1]... in proximity to the proposed road development, which are likely to result in cumulative effects:

- Sligo County Council Planning Register;
- Sligo County Council Water Services Department;
- Sligo County Development Plan, 2017 - 2023;
- An Bord Pleanála website;
- Coillte Website;
- Eirgrid Website;

The only approved project in proximity to the proposed road development includes an online improvement to the existing N4/N15 in Sligo town, which occurs circa 4km to the south of the proposed road developments southern boundary. This project extends for approximately 670m from a point just north of Hughes Bridge, to a point just north of the junction with the R291 Rosses Point Road. The development will generally increase the traffic capacity on the N4/N15 from two lanes in each direction to three lanes (via widening), with junction improvements to those side roads intercepted by the development.

The environmental effects arising from this project are not significant considering the results of the EIA screening and Appropriate Assessment decisions, which are outlined below:

Quote 5-1: EIA Screening Decision (Sligo County Council)

...the proposed road development would not be likely to have significant effects on the environment and the N4-N15 Sligo Urban Improvement Scheme does not require an EIA.

5-27

^[1] Terminology used in the amended EIA Directive.

Quote 5-2: Appropriate Assessment Decision (An Bord Pleanála)

...In overall conclusion, the Board was satisfied that the proposed development, by itself or in combination with other plans or projects, would not adversely affect the integrity of the European Sites in view of the sites' conservation objectives.

5.4 Roads Corridors

A Preferred Route Corridor has been established for the N16, extending from Sligo to the townland of *Diffreen* in County Leitrim. However, other sections of the route in this area are not 'approved' and are unlikely, to be progressed in the next 5 to 15 years^[2], therefore not resulting in an accumulation of effects

5.5 Planning Register

The online planning system for Sligo County Council, was consulted on the 01/10/2018 for the proposed works area. A number of residential projects were identified in the townlands of Drumkilsellagh, Castlegal, Lugatober and Lugnaqall in the last 10 years. Each of these developments has been subject to the local authority's appropriate assessment procedure prior to granting consent.

5.6 Assessment of Cumulative and In-Combination Effects

No European Sites were considered to be at risk from cumulative impacts given the nature and scale of the proposed road development, and the implementation of the preventative measures to avoid impacts outlined in Section 4 above. As there is no potential for the currently proposed road development to result in any individual effect on any European Site, therefore it cannot contribute to any cumulative effect.

Each of the projects listed in the foregoing sections have been/will be subject to the to the local authority's appropriate assessment process as part of the planning consent process. No potentially significant residual pollution, disturbance, displacement or habitat loss effects are anticipated.

No potentially significant cumulative and/or in-combination pollution, disturbance, displacement or habitat loss effects on any of the QIs has been identified with regard to the proposed road development.

Taking into consideration the reported residual effects from other plans and projects in the area and the predicted effects with the proposed road development, no residual cumulative and/or in-combination effects have been identified with regard to any QI of any European Site.

^[2] The Sligo section of the N16 lends itself to improvement in a number of sections over the long term (20 to 25 years). However, based on current knowledge, it is likely that only one improvement will occur in the short to medium term.

6 Concluding Statement

This NIS has provided an assessment of all potential direct or indirect pathways for adverse effects on the QI/SCI habitats and species of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Sligo/Leitrim Uplands SPA, Cummeen Strand SPA and Drumcliff Bay SPA

All identified potential pathways for impact are robustly blocked through the use of avoidance, appropriate design and mitigation measures as set out within this report and its appendices. The measures ensure that the construction and operation of the proposed road development does not adversely affect the integrity of European sites

Therefore, it can be objectively concluded that the proposed road development, individually or in combination with other plans or projects, will not adversely affect the integrity of any European Site.



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