



An
Bord
Pleanála

Inspector's Report ABP-303731-19

Development	N16 Lugatober (Drumkilsellagh to Lugnagall) Road Project.
Location	Lugatober (Drumkilsellagh to Lugnagall), County Sligo.
Applicant	Sligo County Council
Observers	Sligo Chamber
Type of Application	Section 51 of the Roads Act 1993, as amended.
Dates of Site Inspection	08 th May and 21 st June 2019
Inspector	Patricia Calleary

Contents

1.0	Introduction	3
2.0	Site Location and Description.....	3
3.0	Proposed Development.....	5
4.0	Policy Context	7
5.0	Reports and Submissions	10
6.0	Roads Authority Response to Submissions	12
7.0	Planning Assessment.....	12
8.0	Environmental Impact Assessment	18
9.0	Appropriate Assessment	48
10.0	Recommendation	57
11.0	Conditions	62

1.0 Introduction

- 1.1. This report relates to an application to An Bord Pleanála by Sligo County Council in which approval is sought for development under the provisions of Section 51 of the Roads Act 1993, as amended. The proposed development referred to as the 'N16 Lugatober (Drumkilsellagh to Lugnagall) Proposed Road Development' (PRD) relates to the upgrade of approximately 2.5km of the N16 national primary road from a point approximately 2.5km to the northeast of Sligo town. It is part of the wider N16 National Primary route upgrade, which is intended to improve road connections from Sligo towards Belfast and Dundalk. Following a request from Sligo County Council under section 50(1)(b) of the Roads Act, 1993, as amended, the Board directed the Roads Authority (File Reference ABP-300441-17) to prepare an environmental impact assessment report in respect of the PRD. The application now before the Board is accompanied by an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS).
- 1.2. A parallel application was initially made by Sligo County Council requesting the confirmation of a compulsory purchase order (CPO) to facilitate the delivery of the road. All initial objections in relation to the CPO application were subsequently withdrawn and the Board has no further role in relation to that application.

2.0 Site Location and Description

- 2.1. The site is predominately located in the townland of Lugatober with the remainder crossing other townlands comprising Drumkilsellagh, Doonally (ED Drumcliff East), Castlegal (ED Glencar), Drum East, Collinsford and Lugnagall. At its closest point, the PRD is located approximately 2.5km northeast of Sligo city and approximately 15.5km west of Manorhamilton in County Leitrim. Sligo and Manorhamilton are connected by the N16 national road, which extends eastward to meet the A4 major road at the border with Northern Ireland at Blacklion / Belcoo. The A4 connects onwards to Enniskillen and feeds into the M1 motorway travelling towards Belfast.
- 2.2. The section of the N16 which is the subject matter of this application, commences in the townland of Drumkilsellagh at the junction with local road L3406 (Drum Road), initially following a north-south alignment for a distance of approximately 1.1km rising by approximately 30m towards the western slopes of Cope's Mountain. A local road,

the L7415, intersects the national road in this lower section. The second section of the road project follows around the north-western slopes of Cope's Mountain and is deficient in horizontal alignment with overtaking prohibited. This section of this road cuts into the mountain slope and intermittently features steep drops to the northwest into Glencar valley. The L7413 and L3404 local roads intersect the second section of the road, dropping north-westwards into the valley. The project terminates in Lugnagall townland, approximately 2.5km from the county boundary with Leitrim. The boundary is identified on the ground by a stream running north towards Glencar Lake.

- 2.3. The area which the road traverses is characterised by agricultural lands dominated by sheep farming, interspersed by farmsteads and dwellings set back from the roadside. While agriculture is the dominant land use, the area also performs an important tourism function, with Glencar waterfall accessed via this route.
- 2.4. For large sections, the existing stretch of the N16 is flanked on both sides by mature hedgerows and trees, including broadleaf wooded areas. Views overlooking Glencar valley are intermittently available along the second higher section of the road. The Tully River is the largest watercourse that intersects with the subject section of the N16, and it passes under the road at Drumkilsellagh, before flowing west towards Rathcormac village and Drumcliff Bay. Two other watercourses feeding off the north-western slopes of Cope's Mountain, flow north-westwards towards the Drumcliff River in the valley below, which feeds into Drumcliff Bay from Glencar Lough.
- 2.5. There are no schools or community facilities within the study area. Calry National School is located c.5km away. Sligo Tennis Club is located nearby in the vicinity of Shannon Oughter, close to the N15. There is an Alzheimer's day-care facility at Doonally. Dairy, cattle and sheep farming are the main activities in the area. Other businesses in the study area are stated to include a property known as 'Glenview' guesthouse¹ and a 'shot blasting' premises. There is a haulage business and a regional veterinary laboratory at Doonally. AbbVie international pharmaceutical

¹ Glenview does not appear to operate as a guesthouse, a matter which is addressed later in this assessment under the heading of Population and Human Health.

company is accessed from a roundabout junction off the N16, c.2km south towards Sligo.

- 2.6. Currently, the N16 carries an average annual daily traffic (AADT) of circa 2,800 to 3,500 (2018 figures) per year. There are four minor road intersections along the subject section of the N16, and there are 22 direct accesses onto the road from houses and agricultural lands.

3.0 Proposed Development

- 3.1. The PRD relates to approximately 2.5km of the N16 national road from a point approximately 2.54km to the northeast of Sligo, commencing in the townland of Drumkilsellagh and terminating in the townland of Lugnagall. Chapter 4 of the EIAR (Main Report) provides a detailed description of the design for the PRD.

- 3.2. As set out in the EIAR, the physical characteristics would generally comprise:

- Realignment to the existing N16 National Primary Route (c. 0.79km online and c. 1.75km offline);
- Junction improvements including one 'at-grade' roundabout and six simple T-Junctions;
- Approximately 1.5km of realignment to the existing local road network (tie-in works);
- Three direct access connections to the National Primary road network;
- Approximately 1.5km of unsegregated cycle and pedestrian tracks located predominately within the mainline verge space, interlinking with alternative offline routes;
- One vulnerable road users 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 PRD;
- The diversion of services and utilities;
- Earthworks operations;
- One steepened cut side slope in the townland of Lugatober;
- One soil repository/borrow pit;

- Environmental mitigation works;
- Other consequential construction works;

- 3.3. The project entails approximately 67% offline realignment works and approximately 33% online at both road tie-ins, to provide a 'Type 2 Single Carriageway' road, with a total width of approximately 18m and includes a cycle track where alternative off-road routes are not available. A typical cross-section of the PRD is presented in Figure 4.4.1 within Volume 3 of the EIAR. For the most part, the new road would either run along the existing road or parallel with it. All junction tie-ins with connecting local roads are simple junction tie-ins and a roundabout is proposed for the southern tie-in. The PRD proposes a transfer of 19 direct accesses from the national primary route.
- 3.4. The overall length of the road would reduce by 250m (10%) and a journey time reduction of 50 seconds is anticipated over the do-nothing or baseline scenario. This is stated to lead to a 36% reduction in journey time over its length. A dedicated surface water drainage system including attenuation ponds in the form of surface flow wetlands is proposed. There are a number of new structures proposed including a clear span bridge over the Tully Stream at chainage (ch.) 605m, an underpass at ch.1310m for use by vulnerable road users and a reinforced earth structure between ch.1350-1420m and other minor structures, including stream culverts and retaining walls. There are a number of cuts and fills proposed, most of which are less than 5m in height. One deep cut (up to 13m) is proposed at Castlegal and a high embankment is proposed at Lugatober. Lighting is proposed at the southern roundabout and its approach routes to the south and also from the L3406-0 local road with 10m lighting columns carrying LED lanterns. Boundary fencing would comprise timber post and tension mesh fence.
- 3.5. It is estimated that somewhere between 10 and 15 hectares of land would be required for the 2.5km road realignment project, and that the paved road surface would equate to approximately between two and three hectares. The construction phase of the project is expected to take c. 12 to 18 months to complete. For the duration of the works, one construction compound is proposed to be located at ch.500m.

4.0 Policy Context

4.1. The following sets out an overview of applicable European, national, regional and local policy framework relevant to the assessment of the application.

4.2. European Policy

4.2.1. The **Trans European Network (TEN-T)** are a planned set of road, rail, air and water transport networks in the European Union. TEN-T policy sets out the framework for policy development in transport with the aim to close the gaps between Member States' transport networks. The objective is to ensure that progressively, throughout the entire EU, the TEN-T will contribute to enhance internal markets, strengthening territorial, economic and social cohesion and reducing greenhouse gas emissions. The TEN-T consists of two planning layers, namely the Core and Comprehensive transport networks. The Belfast to Sligo route forms part of the TEN-T comprehensive road network of routes, which feeds into the core network at regional and national level.

4.3. National Policy

4.3.1. **The National Planning Framework – Ireland 2040 (NPF)** sets out ten National Strategic Outcomes, which include:

- Compact Growth;
- Enhanced Regional Accessibility;
- Strengthened Rural Economies and Communities;
- High Quality International Connectivity;
- Sustainable Mobility;
- A Strong Economy, supported by Enterprise, Innovation and Skills;
- Enhanced Amenities and Heritage;
- Transition to a Low Carbon and Climate Resilient Society;
- Sustainable Management of Water, Waste and other Environmental Resources;
- Access to Quality Childcare, Education and Health Services.

4.3.2. Within the NPF, Sligo is identified as a regional centre for economic growth. Section 3.3 recognises Sligo's significance as a centre for employment and capacity for Sligo

to enhance its regional role through building critical mass of population and future employment in tandem with enhanced accessibility and quality of life. A key future planning and development priority for the Northern and Western region seeks the enhancement of city-region like functions. Section 4.3 (National Policy Objective 7) provides for the strengthening of Ireland's overall urban structure, including Sligo and Letterkenny in the North-West, and cross-border networks.

- 4.3.3. **Investing in our Transport Future: Strategic Investment Framework for Land Transport (Department of Transport, Tourism and Sport) 2015** established high level priorities for future investment in land transport and key principles to which transport investment proposals are required to adhere to.
- 4.3.4. **Smarter Travel – A Sustainable Transport Future 2009-2020** sets out a transport policy for Ireland. The policy proposes to retain investment in roads that provide the necessary links to support the NSS².
- 4.3.5. The **National Cycle Policy Framework 2009-2020** seeks to create a strong cycling culture in the country. It considers the planning and infrastructure, communication and education intervention measures necessary to encourage cycling. While many of the measures focus on urban cycling the document acknowledges the Strategy for the Development of Irish Cycle Tourism.
- 4.3.6. In terms of engineering measures, the **Road Safety Strategy 2013-2020** notes that whilst there is a reduced emphasis on large-scale road construction, there is an increased focus on value for money road improvements that will enhance the safety of the road system as a whole.
- 4.3.7. Other National Policy and Guidance are relevant including the following:
- TII (2004) Environmental Assessment and Construction Guidelines;
 - National Roads Authority (2008) Environmental Impact Assessment of National Road Schemes – A Practical Guide;
 - EPA (2017) Draft Guidelines on preparation of Environmental Impact Assessment Reports;

² The NSS has since been superseded by the NPF.

- European Commission guidance document (2017) on the preparation of the Environmental Impact Assessment report (Directive 2011/92/EU as amended by 2014/52/EU)
- Department of the Environment, Community and Local Government (DoECLG), (2018) Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment;
- Inland Fisheries Ireland (IFI), (2016) Guidelines on Protection of Fisheries during Construction Works in and adjacent to Waters.

4.4. Regional Policy

4.4.1. While under review, the **Regional Planning Guidelines for the Border Region, 2010-2022** remain the appropriate regional planning policy framework document pending the preparation and adoption of the Regional Spatial and Economic Strategies (RSES) for the more recently formed Northern and Western Regional Assembly. The guidelines emphasise that good transport infrastructure is vital to promote economic and social well-being. They identify the N16 as a Strategic Link in a West/North Central Corridor which links the Gateway of Sligo and Enniskillen in Northern Ireland and forms part of the Northern Cross.

4.4.2. Section 4.1.2 of the **Draft Regional Spatial & Economic Strategy (RSES) for the Northern and Western Regional Assembly (N16 National Primary Road Realignment)** sets out that it is proposed to realign and upgrade the existing N16 Sligo-Enniskillen Road from the Sligo urban area to the Sligo/Leitrim county boundary. The draft RSES notes that on a strategic level it is important to develop a cross-border core east-west route, and this is best served through Sligo-Enniskillen-Dundalk corridor. Regional Policy Objectives (regional and local roads) – No. 112 is relevant.

4.5. Regional Corridor Studies

4.5.1. The **EU Socio-Economic Case for Improvements to the N16/A4 Sligo to Ballygawley and N2/A5 Monaghan to Letterkenny Transport Corridors (October 2012)** study notes the deficiency of the N16 as a designated National Primary Road.

4.5.2. The **Border Region East-West Corridor study (March 2007)**, which is an appraisal carried out under criteria including Economic, Environmental, Accessibility,

Integration and Safety, recommended that a Strategic Core East West Route linking Sligo to Dundalk should encompass the N16 between Sligo and Enniskillen.

4.5.3. **Analysis of Need for up-grading of N16-A4 Arterial Route** is a report setting out the main arguments for upgrading the N16/A4 route.

4.6. **Local Policy**

4.6.1. The **Sligo County Development Plan (2017-2023)** is the statutory development plan for the area. Objective O-NR-1 sets out that Sligo County Council would undertake programmed-improvements to the national road network.

5.0 **Reports and Submissions**

5.1. **Prescribed Bodies**

5.1.1. Inland Fisheries Ireland (IFI)

- States that the development has the potential to impact on three catchments, the Drumcliff River, the Tully Stream and the Doonally River.
- Provides a number of requirements including delivery of environment mitigation measures, including the need to follow IFI guidance document 'Guidelines on Protection of Fisheries during Construction Works in and adjacent to Waters', (2016) and the requirement to protect riparian vegetation that may impact on water quality or fisheries habitat.

5.1.2. Transport Infrastructure Ireland (TII)

- No specific observations to make.

5.1.3. Geological Survey Ireland (GSI)

- No County Geological Sites (CGSs) are located within the proposed area of the development and hence no impact on such CGSs in the county would arise;
- Proposed development is located near Cope's Mountain, an upland area with some recorded landslides;

- Asks that any significant bedrock cuttings proposed would be designed to remain visible as rock exposure rather than be covered with soil and vegetation.
- Recommends the furnishing of copies of Site Investigation reports to the GSI in order to add to the GSI's national database of site investigation boreholes;
- Encourages the use of the GSI map viewer.

5.1.4. Irish Water

- Notes proposal to locate the project in close proximity to a number of Irish Water's below ground assets, including 125mm and 90mm watermains running parallel to the N16 and access roads. Requests further information and liaison would take place with Irish Water.

5.2. **Observers**

5.2.1. Sligo Chamber

- Expresses support for the project setting out the significance of the N16 Lugatober road section for business, tourism and residents' needs;
- States that the PRD would improve safety for road users and would deliver a boost for the local economy during construction.

5.3. **Scoping**

- 5.3.1. The applicant refers to informal scoping which was undertaken as part of the EIA process. A scoping report was sent to statutory and non-statutory bodies which are listed under Section 1.5 (EIA Informal Scoping) of the EIAR. Two written responses are on file including one from the HSE and also from IFI. It is also stated that a request was sent to the National Parks and Wildlife Service (NPWS) seeking records on rare and protected species and a response is stated to have been received. In addition, it is stated that consultation took place with OPW, GSI and IFI. It is also stated that no written response was received from the NPWS on nature conservation matters and a phone call with the NPWS local ranger, no issues were highlighted.

6.0 Roads Authority Response to Submissions

6.1. Prescribed Bodies

6.1.1. IFI

- All environmental mitigation measures included in the EIAR would be included in the contract for construction;
- Any IFI presence, where required, would be subject to reimbursement by the Roads Authority and the IFI would be included in the incident response plan. The construction phase of the project would follow the 2016 IFI Guidelines for protection of fisheries. Refers to specific sections of the EIAR and the Outline Erosion and Sediment Control Plan (OESCP).

6.1.2. GSI

- Roads Authority concurs that there are no County Geological Sites affected by the PRD and states that Landslides and Landslide Susceptibility is assessed in Chapter 10 of the EIAR. Acknowledges other GSI comments and recommendations.

6.1.3. Irish Water

- Roads Authority is aware of the PRD's proximity to existing watermains. Any watermain diversions and temporary connections would be planned and executed in accordance with Irish Water protocols and the Roads Authority states their intention to liaise with Irish Water in this regard.

6.2. Observers

6.2.1. Sligo Chamber

- Welcomes the submission and highlights particular points put forward in support of the proposal.

7.0 Planning Assessment

7.1. Introduction

- #### **7.1.1.**
- Most of the assessment in relation to the application now before the Board centres around environmental matters and I have dealt with these below under the heading

of Environmental Impact Assessment (EIA). The planning assessment therefore considers policy and the need / justification including road safety considerations in respect of the PRD.

7.2. Policy Considerations

7.2.1. European Policy

As set out under Section 4 (Policy Context) above, the EU have designated the Belfast to Sligo road as part of a comprehensive network of routes which feed into the core **TEN-T network**. The PRD can be considered of strategic importance in linking Sligo and the north west of Ireland to the Belfast/Sligo route, which in turn connects with the TEN-T network.

7.2.2. National Policy

In terms of National Policy, the PRD is supported by Strategic Outcomes set out in the **NPF**, including in particular: Enhanced regional accessibility, Strengthened rural economies and communities, High Quality international connectivity and sustainable mobility. It would assist in delivering Sligo's status as a regional centre for economic growth. As set out in the EIAR, Sligo has a strong employment base, particularly in the pharma, engineering, third-level education (including IT Sligo campus), cultural institutions and health services. The PRD would provide improved access to build on the capacity for employment and economic growth as envisaged in Section 3.3 of the NPF and in strengthening Sligo's urban structure, as set out in Section 4.3. The PRD would also accord with high-level priorities set out in '**Investing in our Transport Future: Strategic Investment Framework for Land Transport (Department of Transport, Tourism and Sport) 2015**', including Priority 1: Achieve steady state maintenance, Priority 2: Address urban congestion and Priority 3: Maximise the contribution of land transport networks to our national development.

The proposal would be consistent with policy set out in **Smarter Travel – A Sustainable Transport Future 2009-2020**, which proposes to retain investment in roads that provide the necessary links to support the National Spatial Strategy (since superseded by the NPF). It would also be consistent with policy set out in the **National Cycle Policy Framework 2009-2020**, which supports the delivery of infrastructure necessary to encourage cycling. In support of the objective to provide designated rural cycle routes, the stated policies include examining the use of hard

shoulders and contiguous space on roads with an arterial character as part of the National Cycle Network and ensuring that the upgrading of national roads does not impact negatively on the safety and perceived safety of the roads for cyclists.

The PRD would undoubtedly improve road safety for all road users and would be consistent with the **Road Safety Strategy 2013-2020**, which notes that there is an increased focus on value for money road improvements that would enhance the safety of the road system as a whole.

7.2.3. Regional Policy

The **Regional Planning Guidelines for the Border Region, 2010-2022** remain the appropriate regional planning policy framework document pending the preparation and adoption of the Regional Spatial and Economic Strategies (RSES) for the more recently formed Northern and Western Regional Assembly.

The Regional Planning Guidelines identify the N16 as a Strategic Link in a West/North Central Corridor linking Sligo and Enniskillen in Northern Ireland and forming part of the Northern Cross. It specifically lists the development of the N16 Sligo to Enniskillen section as a priority.

Section 4.1.2 of the **Draft Regional Spatial & Economic Strategy (RSES) for the Northern and Western Regional Assembly** (N16 National Primary Road Realignment) which are due to be adopted sets out that it is proposed to realign and upgrade the existing N16 Sligo-Enniskillen Road from the Sligo urban area to the Sligo/Leitrim county boundary. It recognises that the existing road is deficient in terms of geometry and surface condition and results in slow journey times and hazardous traffic conditions. It states the strategic importance to develop a cross-border core east-west route and that this is best served through the Sligo-Enniskillen-Dundalk corridor.

Regional Policy Objective (Regional and Local Roads) – No. 112 sets out that the East-West (Dundalk to Sligo) Road will be pursued incrementally in the short and medium term, to be delivered to an appropriate level of service (Dundalk-Carrickmacross- Shercock- Cootehill-Cavan- Enniskillen- N16 at Blacklion).

7.2.4. Regional Corridor Studies

The **EU Socio-Economic Case for Improvements to the N16/A4 Sligo to Ballygawley and N2/A5 Monaghan to Letterkenny Transport Corridors (October 2012)** study notes the deficiency of the N16 as a designated National Primary Road. The **Border Region East-West Corridor study** recommends that a Strategic Core East West Route linking Sligo to Dundalk should encompass the N16 between Sligo and Enniskillen. **Analysis of Need for up-grading of N16-A4 Arterial Route** is a report setting out the main arguments for upgrading the N16/A4 route.

7.2.5. Local Policy

The **Sligo County Development Plan 2017-2023** is the statutory plan for the area. Objective O-NR-1 states that it is an objective of Sligo County Council to 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. Table 8.B includes the 'N16 Sligo to County Boundary' section as one which requires improvement by 2021. The PRD would allow for the realisation of this stated objective and is supported by local policy, as outlined in the county development plan. Other specific policies and objectives considered and are referenced throughout the environmental impact assessment below, as appropriate.

7.3. Need/Justification and Road Safety

7.3.1. The background and need for the scheme are set out in Chapter 2 of the EIAR. Chapter 2 also provides technical detail in relation to the existing road profile. An analysis of the existing road is put forward by the applicant and centres around relevant technical issues, including road cross-section, geometry, junctions, stopping sight distance and drainage. The width of the road varies from 6m to 6.5m with limited verges in places of c.0.5m to 1m in width. In terms of the cross sections, in Lugatober, it is typically c.50% less than that which is desired for a TII specified Type-2 Single Carriageway cross section.

7.3.2. The geometry of the road was examined by the applicant using the Road Design computer package, MXRoad. In terms of horizontal curvature, the current route follows the general existing topography, resulting in 13 tight radius bends occurring close together, approximately every c.201m. These fall well below the desired

requirements set out in the TII standards and consequently also result in poor Stopping Sight Distance. In terms of vertical curvature, the existing topography includes 31 vertical curves occurring on average once every 90m. As presented in Figure 2-10 and 2-11 within Chapter 2 of the EIAR, these values are deficient as they fall well short of TII standards. Having travelled the route, I would agree that the deficiency and intensity of the curves greatly inhibits the safety and efficiency of the road, and in a number of cases it severely impacts upon stopping sight distance.

- 7.3.3. In relation to junctions, there are six local road junctions occurring along the existing N16, which are proposed to be replaced by the PRD. The existing road has eight direct residential accesses and 14 agricultural entrances, which give rise to safety issues due to the intensification of right-turning movements onto a national primary route.
- 7.3.4. In terms of surface water, the existing N16 is without a dedicated surface water drainage system. Verge cuts provide an informal means of surface water runoff and the runoff is not treated or attenuated prior to discharge to the receiving environment. Flash floods and aqua-plaining are stated to be a common feature following heavy rainfall events and this is exacerbated by the topography of the area where following heavy storm events, the road intercepts sheet flow from the adjacent Cope's Mountain.
- 7.3.5. Section 2.4 of the EIAR sets out what is referred to as the 'Problem Definition' in the context of this section of the N16 being replaced by the PRD and does so under six headings (Economy, Safety, Environment, Accessibility, Integration and Physical Activity).
- 7.3.6. In terms of the economy, due to the deficiencies of the road as outlined above, the journey time is increased, having a low journey speed of c.67 kph. Given the high dependency on road-based transport in the area and the lack of public transport as a real alternative, this results in a poor level of service and a consequential impact on the local and regional economy. Sligo Chamber have expressed strong support for the proposal, stating that its delivery is crucial for the proper functioning of industry and trade within the region and is required to improve competitiveness of the economy and for sustaining tourism in the area.

7.3.7. In terms of road safety, deficiencies are clearly evident as outlined above. Information from the Road Safety Authority (RSA) collisions database reveals that there have been three minor collisions recorded on this section of the national primary route between 2009 and 2015. In addition, a fatality also occurred on the N16 in 2016 at Drumkilsellagh. Overall, this equates to approximately 14.75 accidents per 100 million kilometres of travel, which is almost twice the national average.

7.3.8. It is clearly evident that the current deficient condition of the road acts as a barrier to accessibility, social inclusion and integration for both local short trips and longer inter-regional or international trips. Pedestrian movement and cycling activity on the existing route is also inhibited. I would agree as submitted that the proposal for a dedicated cycle lane would bring about increased safety for locals and tourists. Given the improved alignment, the PRD would undoubtedly result in a road which is safer to travel.

7.4. Conclusion on proper planning and sustainable development

7.4.1. Having regard to the existing deficient nature of the section of the road, as set out above, including the existing geometric conditions and the problems that arise, and when taking the policy context into account, the need for the development is clearly evident. I therefore consider that the need for the PRD has been justified and would result in a safer road over its length. I also submit that the consideration of non-motorised users accords with TII recommendations for such projects. I have also concluded above that the proposed road and associated works are supported at national, regional and local policy level. It is therefore reasonable to conclude that the consequences for proper planning and sustainable development in the area would be largely positive. This is contingent on ensuring that the effects on the environment of the proposed development, by itself and in combination with other development in the vicinity, would be acceptable and that the integrity of European Sites would not be adversely affected, in view of the relevant sites' conservation objectives. I have dealt with these matters under the following sections of my assessment.

8.0 Environmental Impact Assessment

8.1. Introduction

8.1.1. Sligo County Council has submitted an Environmental Impact Assessment Report (EIAR) which is presented in a 'grouped format' comprising 4 volumes as follows:

- Volume 1: EIAR Non-Technical Summary
- Volume 2: Main Report
- Volume 3: Figures
- Volume 4: Appendices

8.1.2. It is submitted by the applicant that the EIAR has also been prepared in accordance with the European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018 that came into effect on 1st September 2018, and which the Board will be aware, transposed Directive 2014/52/EU into Irish law in respect of the assessment of the effects of certain public and private projects on the environment by amending the Planning and Development Act 2000, the Planning and Development (Housing) and Residential Tenancies Act 2016, the Planning and Development (Amendment) Act 2018 and the Planning and Development Regulations 2001. I note however that the Roads Act has not as yet been amended to give effect to the Directive. Nonetheless, it is proposed to apply the requirements of Directive 2014/52/EU.

8.1.3. As is required under Article 3(1) of the EIA Directive 2011/92/EU amended by Directive 2014/52/EU, the EIAR identifies, describes and assesses in an appropriate manner, the direct and indirect significant effects of the project on the following environmental factors: (a) population and human health; (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC; (c) land, soil, water, air and climate; (d) material assets, cultural heritage and the landscape and it equally considers the interaction between the factors referred to in points (a) to (d).

8.1.4. I am satisfied that the EIAR has been prepared by competent experts to ensure its completeness and quality, and that the information contained in the EIAR and supplementary information provided by the developer, adequately identifies and

describes the direct, indirect and cumulative effects of the proposed development on the environment and complies with the requirements of Section 50 of the Roads Act, 1993, as amended and Directive 2011/92/EU as amended by Directive 2014/52/EU.

8.2. Vulnerability to risks of major accidents and/or disasters

- 8.2.1. With regard to the effects of the project on the environment arising from its vulnerability to risks of major accidents and/or disasters, this matter is addressed in section 5-5 of the EIAR. It is concluded that the project is not of a nature which would result in it generating a risk of major accidents and/or natural disasters as a result of Seveso sites or landslides. There are no Seveso (COMAH) sites located within County Sligo, or the adjoining County Leitrim. The risk of landslides is dealt with in Chapter 10 (Soils and Geology) which I have addressed in the assessment further below.

8.3. Consideration of Reasonable Alternatives

- 8.3.1. The consideration of alternatives is set out in Chapter 3 of the EIAR. At 'constraints study' stage, alternatives included 'do-nothing' and 'do-minimum' and 'do-something', including a public transport alternative, a traffic management alternative and upgrades were examined. As the process evolved, the only viable solution was deemed to be the upgrade option which is currently before the Board for approval. Design alternatives included an examination / appraisal of junction siting and side road arrangement, vulnerable road users and the siting of other ancillary infrastructure. In view of the above and having regard to the characteristics of the proposed development, I am satisfied that the applicant has adequately identified and described reasonable alternatives which are relevant to the project and the main reasons for the option chosen are clear.

8.4. Public Consultation

- 8.4.1. Public consultation is stated to have taken place as part of the route selection process and as the design evolved through a constraints study, feasible route options, refined feasible route options and an emerging preferred route with engagement with the public undertaken during all phases. I am satisfied that the participation of the public has been adequate, and the application has been made accessible to the public by electronic and hard copy means with adequate timelines

afforded for submissions. The application is also accessible through the EIA portal³ which is a map-based website providing users with access to applications for development consent which are accompanied by an EIAR and which are made since 16th May 2017.

8.5. Assessment of Environmental Effects

8.5.1. I have carried out an examination of the information presented by the applicant, including the EIAR, the submissions made during the course of the application and responses to submissions. A summary of the submissions made by prescribed bodies has been set out in Section 5 of this report. The main issues raised by prescribed bodies specific to EIA, can be summarised as follows:

- the potential impact of the construction and operational phases of the PRD on water;
- requirement to ensure that environmental mitigation measures set out in the EIAR are included in the contract for construction and enforced fully;
- development is located near Cope's Mountain, an upland area with some recorded landslides;
- proposal would be located in close proximity to a number of Irish Water below ground assets, in particular, watermains that run parallel to the PRD.

8.5.2. In addition, Sligo Chamber expresses support for the project setting out the significance of the PRD for business, tourism and residents' needs. These issues and other matters, which I consider relevant to the assessment, are addressed below under the relevant headings, and as appropriate in the reasoned conclusion and recommendation, including conditions.

8.5.3. My assessment of the effects of the project on the receiving environment environmental follows by considering the following environmental factors:

- Population and Human Health
- Noise and Vibration
- Biodiversity
- Land and Soils

³ <https://www.housing.gov.ie/planning/environmental-assessment/environmental-impact-assessment-eia/eia-portal>

- Water
- Air and Climate
- Material assets
- Cultural Heritage
- Landscape
- Cumulative Impacts and Interactions

8.5.4. The assessment is based on the information provided by the applicant, including the EIAR and the submissions made in the course of the application by the prescribed bodies and an observer, and the response to submissions prepared by the Roads Authority.

8.6. **Population and Human Health**

8.6.1. Population and human health impacts are examined in Chapter 6 of the EIAR (Main Report) where the assessment generally addresses impacts at a community level. Impacts on individual properties are addressed separately within Chapter 14 (agricultural property) and Chapter 15 (non-agricultural property). The PRD falls within the Electoral Divisions (EDs) of Glencar and Drumcliff East in County Sligo. Glencar ED has a total population of 236 and Drumcliff East has a total population of 724. A profile of the local population changes since the 2006 census period is presented. It is submitted that the EDs are not characterised by higher levels of social disadvantage.

8.6.2. The PRD is predicted to have a significant positive long-term effect on journey amenity and road safety. Journey times and accessibility to Sligo town and destinations to the east are predicted to result in a slight positive effect. Cyclists would benefit from the proposal for a two-way cycle lane and the impact for journey amenity is expected to be slight to moderate positive for cyclists.

8.6.3. Tourism potential is predicted to result in a significant positive impact as a result of the inclusion of the cycle track along the PRD. Reference is made to the provision of a viewing facility as a positive interaction with policy and tourism, however there are no details of such a facility presented on any of the drawings or included in the description of works set out in the public notice. It is also submitted that a reduction in severance on householders who reside beside the existing road would transpire due to the provision of crossing facilities and the dedicated cycle lane. The PRD

would undoubtedly result in regional economic and social benefits as a result of improved access for businesses and social and health services in and around Sligo, the region and to cross-border trade.

- 8.6.4. Some negative severance is anticipated on a farming family living adjacent to the L7413-0 at Lugatober. Community severance would also be experienced as a result of the closure of the existing N16 at the cut-off point to the north. For a small number of householders, journeys to the north, including to Glencar Lough, would be required to travel an additional 800m road length. The PRD is stated to potentially result in a moderate negative economic effect on the 'Glenview' guesthouse located on a severed section of the existing N16 parallel at ch.1000m and a slight negative effect on a shot-blasting business to the south. It is my understanding that 'Glenview' does not currently operate as a guesthouse. On the day of inspection, no signage was on display at the property.
- 8.6.5. In relation to health impacts, at a community level there are potential benefits envisaged, due to a reduction in noise levels and improvements in air quality when the PRD is delivered. It is also submitted that because of potential for economic development and tourism improvements, this would lead to improvements in employment opportunities and in social and psychological health as a result. This is plausible but without specific scientific evidence. The development would clearly result in an improvement in road safety through enhanced junction layouts and separation of vehicular and bicycle/pedestrian traffic, which would undoubtedly benefit all road users. A reduction in traffic collisions is anticipated, which would also lead to a reduction in negative impacts on health and the PRD would provide better access to hospitals and emergency services.
- 8.6.6. During construction, the community would experience disturbance from temporary impacts relating to traffic management and would result in delays at works locations. I would agree as submitted by the applicant that while this disturbance cannot be discounted, it does not equate to ill-health. I note that the EIAR concludes that in this regard, the negative impact is assessed as 'slight' and it is relevant to note that the construction period would be short term.
- 8.6.7. Mitigation measures proposed for the construction stage includes community interaction and good traffic management, the provision of pedestrian and cycle

movement and crossing facilities, a pedestrian underpass from a severed farmhouse, signage and appropriate road marking.

- 8.6.8. Following mitigation, the PRD is predicted to have a significant positive effect on journey amenity, including road safety, and a slight positive effect on accessibility which would be a benefit to the local and visiting community and to the business community in terms of regional economic improvements to cross-border trade and access.
- 8.6.9. Other factors which could impact on human health include noise, vibration, air quality, water and soils. These are dealt with under their respective headings below, but insofar as they would interact with human health, it can be concluded that with appropriate site management and adoption of mitigation measures, as proposed, no adverse impacts on health would conceivably arise because of these environmental impacts.
- 8.6.10. Otherwise, given the potential for health improvements outlined above, I would conclude that the impact on health at a community level would be slightly positive.
- 8.6.11. Conclusion on Population and Human Health

Having regard to the above, I am satisfied that at a community level, the proposed development would have significant positive impacts (benefits) on Population and Human Health arising out of improved safety for all road users together with improved access to services and an overall enhanced journey experience. Where negative impacts have been identified as set out above including traffic delays and diversions during the course of construction, these would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. For a small number of householders, journeys to the north, including to Glencar Lough would require an 800m detour during the operation phase. It is considered that this residual impact following mitigation would not justify a refusal of planning permission having regard to the nature and overall benefits of the proposed development.

8.7. Noise and Vibration

- 8.7.1. Noise and vibration are considered in Chapter 7 of the EIAR. A baseline environmental noise survey was undertaken at six representative noise sensitive locations (N1-N6) which are proximate to the PRD.

- 8.7.2. During construction, noise and vibration would arise from use of construction plant and machinery for excavations, drilling and blasting, including a proposed combination of blasting and rock breaking at the required rock cutting of up to 13m depth at Castlegal (between c. ch.900m and c. ch.1160m) and within the adjacent soil repository/borrow pit.
- 8.7.3. It is submitted that noise limits generated would be consistent with BS 5228-1:2009 'Noise control on open and construction sites' and 'Good Practice Guidance for the Treatment of Noise and vibration during the Planning of National Road Schemes' (NRA 2014), such as to ensure adherence to noise limits at the façade of dwellings during construction would be within acceptable limits. It is stated that a noise limit of 70 dB(A) $L_{Aeq, 1 \text{ hour}}$ on Monday to Friday (07.00 to 19.00) would not be exceeded at the nearest noise sensitive properties which equates to the maximum permissible noise level in the guidelines. This noise limits are set out in Table 7-5 and mirror those within the guidance. The contract documents are stated to include specification for noise abatement measures to ensure compliance with these limits. Rock breaking is predicted to result in a higher noise level of approximately 93 - 96 dB $L_{Aeq, 1 \text{ hour}}$ at 10m, however noise from rock-breaking would occur over short-term intervals and would be during daytime periods only. The nearest residential properties would be informed of the timing and duration of the rock breaking.
- 8.7.4. Vibration mitigation measures are proposed such that residual vibration would be limited to standard thresholds and ensure protection against cosmetic damage to properties. Blasting of rock would be required to adhere to strict protocols. Property condition surveys would be offered to all buildings within 50m of the development boundary and to properties within 500m of any potential blast site. Three receptors within 100m of the rock cut area at Castlegal have been identified as being sensitive to vibration impacts during construction, including Castlegal House, a residential property built in the c.1820s, and two other modern houses. TII adopted vibration limits would be complied with during rock blasting and rock breaking/piling works at these property locations.
- 8.7.5. At Lugatober, properties no.s 125 and 126 would be c.50m and 20m from a proposed 4m deep cutting, which would have steepened earthen slopes on each side. In this localised area, rock splitting rather than rock breaking is proposed which

as a methodology is significantly quieter and has less of a vibration impact than rock breaking.

8.7.6. Of the 46 identified noise sensitive receiver locations assessed, no receivers are assessed as requiring noise mitigation measures in the operation phase, either in the year of opening (2021) or the design year (2036), as the predicted noise level is stated to fall below the 60 dB L_{den} design goal as specified in the TII/NRA Guidance, on treatment of noise for national road schemes which is acceptable. The road surface is proposed to be finished in a stone mastic asphalt road surface which is a low noise surface. A total of 11 properties are stated would experience substantial positive change (reduction) in noise levels.

8.7.7. I am satisfied that no vibration related mitigation measures are required in respect of the operational phase of the PRD.

8.7.8. Conclusion on Noise and Vibration

Having regard to the above, I am satisfied that the negative Impacts on sensitive receptors arising from noise and vibration would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. At a localised area close to the most sensitive residential receptors, rock splitting rather than rock breaking is proposed which as a methodology is significantly quieter and has less of a vibration impact than rock breaking. The proposed development would result in positive impacts (benefits) for 11 properties who would experience a noticeable decrease in noise levels during the operation phase as a result of a low noise surface and a corresponding reduction in traffic noise generated.

8.8. Biodiversity

8.8.1. Chapter 9 of the EIAR examines the biodiversity environment. Field surveys of the fauna and flora on both the site and surrounding zone of influence were undertaken between 2016 and 2018. Habitats recorded within the study area are set out in Table 9-19 of the EIAR and include buildings and artificial surfaces, grasslands, woodlands, scrub, calcareous springs, rich fen and flush, drainage ditches, upland/eroding river, recolonised bare ground, hedgerows and trees.

- 8.8.2. Potential for effects on European sites is summarised in the Biodiversity chapter and addressed in more detail in the submitted Natura Impact Statement. Fifteen European sites (ten SACs and five SPAs) are examined and these are presented in Table 9-5 of the applicants submitted EIAR. None of the habitats within the PRD footprint correspond to habitats listed on Annex I of the EU Habitats Directive. However, while the Annex I habitats Alkaline Fen [7230] and Petrifying springs [7220] were recorded outside the PRD footprint, they are within the EIAR study area boundary.
- 8.8.3. National sites of significance have been also examined in the EIAR. These include: Crockauns/Keelogyboy Bogs Natural Heritage Area (NHA) (002435) which lies directly adjacent to and south of the PRD. A review of NPWS mapping indicated that the NHA boundary crosses the existing and proposed road at the location of Lugnagall stream. The Feature of Interest for which this NHA is designated is 'peatlands'. The habitats within this NHA along the PRD comprise Mixed Broadleaved Woodland (WD1) and Lugnagall Flush which is stated to be degraded and highly modified. The woodland along the existing N16 has evidently been recently cleared of woodland vegetation. It is submitted that there would be no direct impacts on the habitats of ecological significance within the NHA and that the PRD would have an imperceptible impact on the biodiversity of the NHA. Specific measures to prevent impacts from water pollution are proposed to be incorporated into the design at both construction and operation phase. These are dealt with under the heading of Hydrology and Hydrogeology below. The Crockauns/Keelogyboy Bogs NHA (002435) overlaps the Sligo/Leitrim Uplands SPA. The relevant SCIs for this SPA are Peregrine and Chough and generic conservation objectives (Version 6.0, February 2018) are applicable. The matter of appropriate assessment is dealt under separate heading below in which a finding of no significant effects on the integrity of this European site was identified. None of the remaining NHAs or proposed NHAs (pNHAs) within the zone of influence were considered to be impacted by the PRD due to the lack of any identifiable pathway for direct or indirect effects.
- 8.8.4. Habitats considered to be of ecological significance were identified and classified as key ecological receptors (KERs). These include: KER 01 - Rich Fen and Flush (PF1) & Calcareous Springs (FP1) at Lugnagall; KER 02 - Calcareous springs (FP1) at

Lugatober North; KER 03 - Flush Area (south of Collinsford); KER 04 - Flush Area (East of Drum); KER 05 -Calcareous springs (FP1) at Lugatober (Reported as West of Castlegal); KER 06 - Woodland Habitats; KER 07 - Treelines and Hedgerows; KER 08 - Tully Stream and Additional Watercourses.

- 8.8.5. Faunal surveys undertaken included an otter survey, badger survey, bird survey, *vertigo* species (whorl snails) survey and bat survey. Bat activity was highest to the south, proximate to Castlegal House. Evidence of Otter activity in the form of spraints was observed under the existing N16 Castlegal Bridge and it is stated that watercourses may be utilised for commuting. Evidence of Badgers was recorded outside of the PRD footprint but within the study area. No evidence of Red squirrel, Irish stoat, Pine marten, Irish Mountain Hare or other protected fauna was recorded.
- 8.8.6. The Willsborough Stream and Tully Stream provide suitable spawning and nursery habitat for salmonids and have potential to support Lamprey species, European Eel and White Clawed Crayfish. The Lugatober, Collinsford and Lugnagall streams have negligible suitability to support habitat for Salmonids, Lamprey species, European Eel or White Clawed Crayfish at the proposed crossing points. However, the watercourses have connectivity to potentially supporting habitat downstream within the Drumcliff catchment. It is stated that all pathways from the watercourses to designated shellfish waters (Garavogue Estuary and Drumcliff Estuary) would be blocked.
- 8.8.7. In relation to birds, it is stated that the banks of the Tully Stream do not provide suitable nesting habitat for the Annex I species Kingfisher. Consideration of the Special Conservation Interests (SCIs) of the Sligo Leitrim Upland SPA (Site Code 004187), including Chough and Peregrine, are dealt with under the heading of Appropriate Assessment, in which it is concluded that there is no potential for habitat loss, displacement or disturbance to these Chough and Peregrine species as a result of the PRD.
- 8.8.8. The EIAR considers the identified impacts on KERs for construction and operation phases. Specifically, an analysis of the effects of the KERs by characterising the impacts for construction and operation phases are set out in Tables 9-23 to 9-34. In relation to the decommissioning phase, I am satisfied that this is not relevant as the road is intended to be a long-term / permanent development. The main impacts

identified on certain KERs are short-term, slight negative and reversible and relate to water quality deterioration from sediment run-off during construction. Impacts associated with dust are also anticipated as leading to short-term slight negative and reversible impacts.

- 8.8.9. Overall, a finding of no significant effect at any geographic scale is predicted, largely on the basis of avoidance of impact through design.
- 8.8.10. During operation, impacts would invariably be less. Impacts from diversions of natural overland flow and groundwater seepage from the road pavement cut has the potential to moderately impact on the local hydrological regime, thus leading to a permanent slight negative effect on KER 03 (Flush Area South of Collinsford).
- 8.8.11. Mitigation measures are outlined and include mitigation by design and avoidance in the first instance and thereafter specific measures are outlined to prevent or minimise effects on individual receptors. An OESCP has been prepared as a method of water quality preservation to offset potential construction stage pollution impacts from the PRD to adjacent hydrologically sensitive habitats, which includes best practice measures. The OESCP also contains measures to minimise dust arising during the construction stage. It is stated in Chapter 11 that the contractor would be required to prepare a Construction Environmental Management Plan (CEMP) in advance of the commencement of construction. I am satisfied that this would be so and would include a developed Erosion and Sediment Control Plan based on the principles of the outline plan on file. I recommend that in the event of an approval that the requirement for a CEMP including the Erosion and Sediment Control Plan can be strengthened by way of an approval condition. All in-stream works in watercourses identified as being suitable to support fish species would be undertaken in accordance with the NRA/TII and IFI Guidelines for such works. All culverts and diversions on the Lugatober Stream, Collinsford Stream and Lugnagall Stream are stated to have been designed to ensure that there would be no net loss of fisheries habitat. Temporary stream diversions would be provided with geotextile membrane or rock armour on sides and the base of such diversions to minimise erosion and surface runoff. New channels would be constructed in dry conditions and all works would be undertaken in consultation with IFI as appropriate. The removal of vegetation would be undertaken in line with the provisions and exemptions described in the Wildlife Act 1976, as amended. In relation to bats,

specific measures for tree planting are proposed to ensure that bat habitat connectivity is not severed.

- 8.8.12. If the PRD is approved, it is stated that during construction, the works would be monitored periodically by a suitably qualified ecologist. Following completion of the works, it is stated that the ecologist would ascertain and record how the works complied with the environmental provisions described.
- 8.8.13. Regarding invasive species, I am satisfied that this is sufficiently addressed in the application identifying the requirements of the Wildlife Acts as amended and European Communities (Birds and Natural Habitats) Regulations 2011, as amended. The non-native invasive species Japanese Knotweed (*Fallopia japonica*) was recorded on the PRD in the townlands of Lugatober and Lugnagall. A pre-construction survey is proposed to be conducted to determine if there has or has not been an additional spread of Japanese knotweed/ or introduction of any other invasive species post the undertaking of this EIAR. An Invasive Alien Species (IAS) Management Plan has been prepared and is included as an appendix within Volume 4 of the EIAR. It sets out methods for the treatment of Japanese Knotweed pre-construction. Control measures are also outlined including adherence to 'The Management of Noxious Weeds and Non-native Invasive Plant Species on National Roads (NRA 2010)'.
- 8.8.14. During the operation phase, specific measures relating to surface water runoff have been incorporated into the design and include the use of penstocks, attenuation systems and hydrocarbon interceptors. I would agree, as is submitted, that with the pollution prevention measures in place, the PRD would result in a higher level of ecological protection against water pollution than currently exists. Mammal resistant fencing is proposed at locations to prevent badgers from crossing the road at locations other than at mammal underpasses which are proposed. Lighting has been designed to avoid light spillage outside of the intended area.
- 8.8.15. With the adoption of mitigation measures, the PRD has been assessed as not resulting in any significant effects on any of the identified KERs. Overall, no significant residual effects on receptors of International, National, County or Local Importance are anticipated.

8.8.16. Conclusion on Biodiversity

Having regard to the above, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. A key element includes the development of and adherence to a Construction and Environmental Management Plan which would include an Erosion and Sediment Control Plan, together with adherence to IFI guidelines and consultation with IFI and NPWS as the project is advanced. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Biodiversity.

8.9. Soils and Geology

- 8.9.1. Soils and Geology are examined in Chapter 10 of the EIAR. The PRD site is located primarily within agricultural lands. There are two quarries within the study area, neither of which are currently in use. As confirmed by the GSI, there are no Geological Heritage Sites within the study area. There are five County Geological Heritage sites within 10km of the PRD, but these are not considered sensitive to the development due to their separation distance from the road footprint.
- 8.9.2. Based on geotechnical investigations and published data, ground conditions comprise topsoil and some made ground on glacial tills (cohesive and granular) underlain by limestone bedrock. Some made ground was encountered and laboratory tests did not indicate any contamination. Groundwater was encountered at depths ranging from 2.6m to 11.0m below ground.
- 8.9.3. While the site itself does not have any karst features identified on the GSI mapping, there are stated to be 18 karst features located within 10km of the site. Four additional Calc tufa springs referenced as No.s 14, 15, 16 and 17 on Table 10-2 (Karst Features) of the EIAR, were stated to be identified in the N16 Sligo to County Boundary Route Selection Report (July 2017). A swallow hole referred to as No.18 is also listed and is stated to have been discovered in Drumkilsellagh at Ch 0.0m. The location of the karst features are presented in Figure 10.1 of the drawings contained in Volume 3 of the EIAR (Figures). A review of this figure when cross referenced against Table 10-2 would indicate certain discrepancies between both. In the first instance the numbering of the Spring features and the Swallow hole within the study

area are clearly at odds with those presented in Table 10-2 of the EIAR. Equally the numbering sequence and the townlands do not correspond in all cases. One such identified feature shown on Fig 10.1 is not numbered or referenced in the corresponding aforementioned table. Notwithstanding these discrepancies, it is clear when taken as a whole within the wider information contained in the EIAR and noting in particular the information provided in Figures 9.3.2 and 9.3.1 (Key Ecological Receptors) in Chapter 9 (Biodiversity), that the four 'calcareous spring' features have been examined and are adequately considered in the design. I am also satisfied that the features of the swallow hole close to the intersection of Drum Road and the N16, at ch.0.0m has been adequately considered. I have also viewed each of these features on the ground. I return to the anticipated impacts and proposed mitigation below.

- 8.9.4. It is also stated that during site investigation, anomalies were encountered which may be karst related. One such location was at Borehole 218 where no recovery from 11.0m to 12.0m bgl was recorded, indicating the potential for the presence of a void. Based on a review of the drawings, including Fig 10.4.2 (geotechnical overview), the location of this particular borehole would appear to correspond with the general location of a calcareous spring at Lugnagall , referenced as KER 01 (Lugnagall Flush) on Figure 9.3.2 (KERs).
- 8.9.5. The GSI map viewer presents the location of three neighbouring historic landslides. These are located outside the study area and are not considered sensitive to the development due to their distance from the road footprint. It is stated that the PRD is designed to avoid all areas of high susceptibility to landslides and is within areas of moderately low and low susceptibility to such potential occurrences.
- 8.9.6. There is no evidence of contaminated land or organic material based on baseline data collected including site investigations. Two historic quarries to the south of the site are stated to have been previously used for the disposal of soil, stone and inert construction and demolition waste.
- 8.9.7. A Soil Repository/Borrow pit is proposed, located between ch. 880m and ch.1045m which would realise c.59,000 m³ of rock and overburden for re-use. The same amount of material deemed unsuitable for re-use is proposed to be deposited in the repository. The remaining 40,000 m³ of material required externally from the site

would be sourced from local quarries and would result in 5,000 additional truck movements over the course of the construction phase.

- 8.9.8. The impact assessment of the construction phase focussed on earthworks, importation of construction material, subsoil and bedrock removal, karst features, economic geology, erosion, storage, sealing of overburden, contaminated land organic matter and soil pollution. Soil pollution is predicted to have the highest level of significance with impact significance ranging from moderate to slight negative. No karst features were identified underlying the PRD and while the risk of localised karst being present exists, it is stated to be a low risk with a negligible impact.
- 8.9.9. Soil pollution is also identified as a potential impact during operation, but with neutral or imperceptible significance. No other impacts have been identified on the soils and geology environment during the operation phase. Groundwater pollution is examined in Chapter 11 (Hydrology and Hydrogeology) in the EIAR and I have considered it under its same heading further below.
- 8.9.10. In terms of mitigation of construction impacts, these include designing to minimise the importation of material and reuse of material on site, as well as good site management.
- 8.9.11. Rock removal is required, and as recommended by the GSI in correspondence to the Board, it is proposed to expose the rock faces along the road in deep cut areas. This is presented as resulting in a positive impact for geology as it would allow the public to experience this view, where normally it is hidden underground away from direct view and in doing so would add to geological knowledge of the sub-surface. A qualified geotechnical engineer would be engaged to investigate exposed surfaces for any karst features and to inspect the ground where rockhead is not exposed for the appearance of karst features. Any karst features encountered would be backfilled with a fining up sequence to return the site to its original conductivity and removing any risk of collapse. Following the implementation of these mitigation measures the residual impact is predicted to be imperceptible and neutral. It is stated under the examination of Hydrogeology (Chapter 11) that this feature is small and drains less than one hectare. It is proposed to construct a low retaining wall to avoid encroachment of this feature and to ensure that drainage to and from the swallow hole would not be impacted on.

- 8.9.12. The applicant states its intention to furnish a report to the GSI, detailing site investigations carried out. Control measures would ensure that topsoil and overburden required to be removed would be appropriately handled, stored and reused. During construction, localised accidental spillages of fuel or chemicals have the potential to contaminate underlying soils, however, these would be mitigated by adopting standard pollution measures.
- 8.9.13. During the operational phase, mitigation measures outlined under the heading of Hydrology and Hydrogeology for the protection of groundwater would also protect the soils from contamination.
- 8.9.14. Following the implementation of the mitigation measures proposed and the engagement of a geotechnical engineer to advise on karst features, I am satisfied that the residual impacts at both the construction and operational phases would be no greater than imperceptible.

8.9.15. Conclusion on Soils and Geology

Having regard to the above, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Soils and Geology.

8.10. Hydrology and Hydrogeology

- 8.10.1. The hydrology and hydrogeological factors are examined in Chapter 11 of the EIAR. The PRD is located within three river catchments, comprising the Willsborough Stream catchment to the South, the Tully Stream and Drumcliff River. The catchment Winter Rainfall Acceptance Potential (WRAP) for these catchments is predominantly SOIL index 5 and to a lesser extent index 4 representing the classifications of 'Very Low' and 'Low' WRAP and consequently very high and high flood runoff classifications.
- 8.10.2. The main hydrological impacts on the receiving waters are associated with the proposed road crossing points and the potential for sediment loading and pollutants entering such watercourses during both construction and operational phases. Of the five crossings of drainage/stream channels, the Tully Stream crossing is the largest

with an upstream catchment area of 1.53 km² to the proposed crossing and 1.64km² to the existing N16 road culvert. I would agree as submitted that all of the other drains/streams to be crossed have very small catchments of between seven and 40 hectares in area. In relation to watercourse crossings, the design of stream culverts for the larger catchments follows OPW Section 50 design standards and TII drainage requirements which collectively provides for twice the annual flood and allows for statistical error (1.65) and climate change (mid-range of 1.2). Overall the combined factor is just under four times the mean annual flood flow. Smaller catchments less than 0.4km² use the mean of the IH124 equation and ADAS design flow estimates, also in accordance with TII drainage guidelines and which also allows for statistical error and climate change as appropriate. It is evident that the design of the culverts is soundly based and will ensure peak water flows will be adequately accommodated.

- 8.10.3. Existing flood risk examination within the study area indicates fluvial flood risk along the existing N16 road at Lugatober stream culvert crossing, Collinsford tributary crossing and Lugnagall stream crossing. Significant flood risk currently exists downstream of the N16 road on the Glencar local road (L3404-0) occurring from the Lugnagall Stream due to insufficient culvert sizes at field crossings and at the local road crossing.
- 8.10.4. All proposed culvert structures are intended to be designed with a capacity to pass the estimated 100-year flood flow with appropriate allowances for statistical error and climate change. A minimum freeboard allowance of greater than 0.3m between its soffit level and the design flood level would be provided at all culverts. Having examined the design, which includes an actively managed drainage system and interceptor and toe drains and road pavement drainage, I am satisfied that the PRD would result in a beneficial impact on flood risk over the existing section of N16, minimising flood risk to the road without increasing flood risk elsewhere.
- 8.10.5. In relation to surface water quality considerations, rivers monitored by the EPA that traverse the PRD, vary in quality from being 'slightly polluted' by reference to Biotic Index (Q value) of Q3-4 to 'moderately unpolluted' with a Q value of Q2-3.

- 8.10.6. The majority of the PRD is underlain by a Regionally Important Aquifer which has an attribute rating of 'high importance' (County importance). The remainder is underlain by Locally Important Aquifers of 'medium importance' (local high).
- 8.10.7. Based on GSI mapping, the PRD traverses the aquifer vulnerability ratings of extreme over its entire length. Ground investigation revealed vulnerability ratings ranging from 'extreme' to 'moderate' along the road alignment and the alignment passes through a till of low permeability.
- 8.10.8. Based on the GSI National Karst Database and the applicant's walkover visit, it is stated that neither revealed evidence of significant surface karst features present within the study area beyond that of a local karst feature near Carncash townland. This is at variance with that stated under Soils and Geology above. The calcareous spring at Lugnagall is identified however in this chapter and is stated to supply at least 9 properties along the L3403-0 road located downgradient and for this and reasons of land reclamation and filling, has been significantly interfered with. The swallow hole depression feature at Ch 0.0m is also identified. It is stated that this feature only drains the locally surrounding land and would be protected by the inclusion of a low retaining wall to avoid any encroachment to the feature, mirroring the proposals proposed as set out in Chapter 10 (Soils and Geology).
- 8.10.9. In relation to water abstractions/groundwater supplies, it is stated that none would be encroached by the PRD as they are not hydrologically linked to and are located sufficiently remote from the PRD. The PRD is not located within a groundwater source protection area. Seven local water supplies, and private wells are identified and set out in Table 11-23 of the EIAR.
- 8.10.10. Relevant designated sites are listed, comprising European and National designated sites and shellfish waters within Drumcliff Bay and Garavogue Estuary/Cummeen Strand.
- 8.10.11. There are three groundwater dependent wetland sites identified in close proximity to the PRD, which support the priority Annex I habitats 'Petrifying springs with tufa formation' [7220] and 'Alkaline fens' [7230]. These have been considered above under the heading of Biodiversity, in which they are referred to as key ecological receptors (KER 01, KER 02 and KER 05). Other wetland sites which are further

away from the road are also referred to above and include 'KER 03 – South of Collinsford' and 'KER 04 – East of Drum'.

- 8.10.12. The principal hydrological impacts would include construction activities leading to contaminants and silt entering watercourses and causing deterioration of water quality. Operational impacts would include permanent interference with watercourses causing alteration of channels, bank erosion leading on to changes to the morphology of the stream channel and increased flood risk, and accidental spillage associated with HGVs gaining rapid access to receiving water.
- 8.10.13. The principal hydrogeological impacts associated with the road development would include the interception of groundwater flow and recharge as a result of construction activities, increasing the vulnerability of underlying aquifers to pollution, as a result of loss of overburden. In addition, the potential pollution of the underlying groundwater body from road drainage and construction works would, if unmitigated, lead to hydrogeological impacts. The most significant impact predicted is that on the regionally important aquifer between ch. 0 to 1050m, which is rated as a slight negative impact.
- 8.10.14. The ratings of significant impacts on groundwater resources is largely imperceptible, except for one private well (GWS_1) which is rated as slight.
- 8.10.15. No significant impacts to Lugnagall Flush, the Lugatober North Ecological site (petrifying spring) of national importance or the 'West of Castlegal' Ecological Site of County importance are predicted as a result of the PRD. There is some potential for a moderate impact to the 'South of Collinsford' Ecological Site of County importance, as a result of the diversion of seepage flows. No potential impacts to the 'East of Drum' Ecological Site of Local Higher importance are anticipated as a result of the PRD.
- 8.10.16. For the construction phase, mitigation measures are stated to follow the principles of avoidance, reduction and remedy. During construction, it is submitted that the contractor would be required to prepare and adhere to a Construction and Environmental Management Plan (CEMP) with a number of standard measures included. I have dealt with this requirement above in consideration of Biodiversity.
- 8.10.17. IFI require that all environmental mitigation measures are included in the contract for construction and enforced fully, and that IFI are included in the incident response

plan in case of pollution or groundwater or damage to fisheries habitat. In addition, IFI have stated their requirements including consultation, fencing of riparian buffer zones, protection of water quality and compliance with IFI Guidelines on protection of fisheries during construction works in and adjacent to waters (2016).

8.10.18. In a response on submissions received by the Board, the applicant confirms its intention to comply with IFI requirements through the conditions of the contract and measures included in the OESCP.

8.10.19. Operational phase mitigation includes design to avoid significant hydrological and hydrogeological impacts. One specific mitigation measure around maintaining flowpaths, such as would protect the 'South of Collinsford' ecological site from hydrological changes from the upslope cutting, is proposed. It is also submitted that consultation with IFI and NPWS would continue.

8.10.20. Post mitigation, there are no residual impacts above slight predicted to result on the hydrological or hydrogeological environment.

8.10.21. Conclusion on Hydrology and Hydrogeology

Having regard to the above, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Hydrology and Hydrogeology.

8.11. Air and Climate

8.11.1. Air and Climate is examined in Chapter 8 of the EIAR. Results of baseline monitoring found that the existing NO₂ concentrations in the areas are less than 25% of the annual limit for the protection of human health (40 µg/m³), which indicates very good air quality. PM₁₀ levels for Zone D, the closest zone for which there is data available, are approximately 12µg/m³ and are well within the EU annual limit value of 40µg/m³ and WHO air quality guideline of 20µg/m³ respectively. It is submitted that because the PRD is for the main part an online project, dust impact would be minimised when compared to larger offline road projects.

- 8.11.2. Groundworks would involve cuttings, excavations, embankments, fill, road paving and installation of signage and services. It would involve a rock cut area at Castlegal (ch.850-1150m) up to 13m deep. Rock would be primarily excavated via rock ripping and blasting methods. The soil repository/borrow pit would be constructed adjacent to the rock cutting at this location, which would also require rock ripping and/or blasting.
- 8.11.3. During construction, 'temporary slight adverse' impact arising from dust is anticipated on three sensitive receiver locations within 100m of the works at Castlegal and two at Lugatober, which have potential to become exposed to dust impacts.
- 8.11.4. In order to minimise the potential dust impact, dust minimisation measures are proposed which are generally standard in nature and include the cleaning of the site and public roads, stockpiling of materials to minimise exposure from wind, water misting or spraying, careful loading of vehicles, maintenance of vehicles, restriction of speed limits of site traffic to 20 km/hr and careful handling of materials during excavation. The main mitigation measure would be the requirement for the contractor to maintain dust levels below the guidance of 350 mg/m²/day as an annual average to sensitive receptors. Measures to control blasting impacts on air quality are proposed to be employed. Nearby residents would be informed prior to planned blasting schedules and a warning siren would be sounded prior to blasting taking place. At the two identified properties at Lugatober, which are most sensitive (No.s 125 and 126), splitting of rock rather than blasting is proposed, which I am satisfied would produce less dust arisings.
- 8.11.5. No impacts on air quality pollutant concentration (NO₂ and PM₁₀) above imperceptible are predicted as a result of the PRD.
- 8.11.6. As there would be no significant change in traffic volumes in proximity to the PRD, it is submitted that no long-term residual impacts would arise as a result of changes to air quality. Similarly, there is no climate impact due to the operation of the PRD when compared with the existing N16 alignment.
- 8.11.7. Conclusion on Air and Climate
- Having regard to the above, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable

conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Air and Climate.

8.12. Material Assets

- 8.12.1. Material assets are examined in Chapter 14 (agriculture) and Chapter 15 (non-agriculture) of the EIAR.
- 8.12.2. Landtake is the primary impact on agriculture / agricultural lands arising from the PRD which would require c.20.8 hectares of agricultural lands on a permanent basis, across twenty-one properties along the existing N16 road. Beyond landtake, other impacts on agricultural properties include land severance, impact on farm buildings/facilities and on land drainage and services. On five farm holdings (23.8% of farms) the unmitigated impact is assessed in the EIAR as significant, due to impacts including landtake, access to lands and impacts to farm buildings. On six farm holdings (28.6% of farms), the significance of impact is assessed as moderate, primarily due to the impact of landtake. The remaining farm holdings (47.6% of farms) would realise a slight or imperceptible significant impact.
- 8.12.3. Impacts during the construction phase would include noise and dust close to farms, causing distress to livestock or reducing productivity, as well as disturbance to drainage and services during this period.
- 8.12.4. Mitigation measures for the operation phase would include replacing farmyard entrances, field access and boundaries and providing access for severed areas. Access for small livestock would be provided through the combined use of the vulnerable road users underpass at ch.1300m.
- 8.12.5. Mitigation measures during construction would include the minimisation of construction noise and dust arising, maintaining access to agricultural lands, reinstatement of field drainage as part of the completed works and where required providing an alternative source of water and/or electricity to ensure that disruption to farming is minimised during construction.
- 8.12.6. Post mitigation, the residual impact is assessed as being moderate on eight farms (38.1% of farms), slight on 11 farms (52.4% of farms) and imperceptible on two farms (9.5% of farms).

- 8.12.7. Beyond agricultural lands, consideration was given to 15 non-agricultural properties, comprising 11 residential properties, three development sites and a Local Authority property consisting of the public road. Impacts on these properties include a reduction in curtilage area and impacts on existing property boundaries and access. Details of the significance of impact without mitigation ranges from imperceptible to significant. In the absence of mitigation, two properties are rated as having a significant impact stated to be due to the acquisition of property curtilage, boundary and access to these properties.
- 8.12.8. Detailed mitigation measures for individual properties affected are set out in Table 15-7 and include maintaining access, consultation and agreements with property owners regarding boundaries, carrying out building surveys on properties in use which are located within 50m of the CPO boundary and repair/replacement of services affected. Post mitigation, the residual impact is predicted as being slight on six properties, imperceptible on eight properties and moderate on one property comprising a development site.
- 8.12.9. Impacts during the construction phase include restricted access to property, disturbance as a result of noise and vibration and dust nuisance. Other impacts include disturbance to drainage and services during this period.
- 8.12.10. It is stated that these construction phase impacts would be mitigated by maintaining access or alternative access, adopting appropriate control measures, providing temporary drainage alternatives, adherence to good traffic management and by appropriate control measures. It is recognised that the PRD might impact on services, including supply of water, electricity and phone services, and the proposed mitigation includes consultation with relevant utility and service suppliers, ensuring the services are maintained and reinstated and giving reasonable prior notice.
- 8.12.11. Post mitigation, the residual impact would be 'slight' on seven properties (46.7% of properties) and 'imperceptible' on eight properties (53.3% of properties).
- 8.12.12. Irish Water have raised concerns regarding the potential impact on watermains that lie adjacent to the existing N16. In response, the applicant submits that they are aware of these utilities and states their intention to engage with Irish Water and to comply with Irish Water's protocols in this regard. I am satisfied that the precise relocation of utilities is a matter which could be planned prior to construction, in

agreement with utility providers, including Irish Water, and I note the applicant's intentions outlined above.

8.12.13. Conclusion on Material Assets

Having regard to the above, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Material Assets.

8.13. **Archaeology, Cultural Heritage and Architectural Heritage**

8.13.1. Archaeology, cultural heritage and architectural heritage are examined in Chapter 13 of the EIAR.

Archaeological and Cultural Heritage

8.13.2. Table 13-5 within the EIAR provides a list of archaeological and cultural heritage sites located within c.50m of the PRD.

8.13.3. During construction, the PRD is stated would impact directly on one site included in the Record of Monuments and Places (RMPs), namely a ringfort (CHC 11 – RMP-026) where a portion would be acquired as part of the CPO for severance reasons. It would also impact indirectly on two other sites included in the RMP, namely a ringfort (CHC 12 – RMP SL009-035) and a wedge tomb (CHC 01 – RMP SL009-028). In addition, the PRD has been assessed as impacting on six sites of archaeological potential, namely three streams (AAP 07, AAP 15 and AAP 16), an area of settlement potential (AAP 17), an area of wet, rush ground (AAP 19) and the site of a former quarry (AAP 20). The PRD would also impact directly on a further six cultural heritage constraints and seven townland boundaries.

8.13.4. In relation to operational impacts, it is stated that the PRD would potentially result in an impact on the setting of three recorded archaeological monuments, namely the two ringforts (CHC 11 and CHC 12) and on the wedge tomb (CHC 01) as referenced above.

8.13.5. Mitigation measures proposed include avoidance and the carrying out of geophysical surveys, topographical surveys, photographic surveys and written records, wade

surveys, test excavations, archaeological excavation and preservation in situ. It is submitted that the archaeological and cultural heritage impacts would be resolved where possible, at pre-construction stage, or where this is not possible by test excavations and monitoring at construction stage. The portion of CHC 11 which would be acquired as part of the CPO for severance reasons would be excluded from the lands which would be made available for construction and thus preserved in situ.

- 8.13.6. During the consultation period, no comment was provided by the National Monuments Service or the Development Applicants Unit of the DCHG. It is submitted that further consultation is proposed to take place with stakeholders with statutory roles including the National Monuments Service and the Built Heritage and Architectural Policy Section of the Department of Culture, Heritage and the Gaeltacht.
- 8.13.7. It is submitted that impacts on the four sites included in the RMP, located in close proximity to the PRD, (CHC 01 – RMP SL009-028, CHC 02 – RMP SL009-027, CHC 12-RMP SL009-035 and CHC 11 – SL009-026) would be avoided by ensuring contractors are aware of their presence and the need to avoid impacting them.
- 8.13.8. With mitigation in place, no significant residual impacts are anticipated to remain on the archaeology and cultural heritage post adoption of mitigation measures. Any archaeological features would be recorded prior to construction and, if required, the site would be notified to the Archaeological Survey of Ireland (DCHG) for inclusion in the SMR.

Architectural Heritage

- 8.13.9. In relation to architectural heritage, there are stated to be no impacts on any sites of national importance included in the Record of Protected Structures or in the National Inventory of Architectural Heritage within the landtake associated with the PRD.
- 8.13.10. The construction phase of the PRD would have a direct negative impact on three locally significant Architectural sites namely the partial remains of a house (AHC 42) and two other houses (AHC 43 and AHC 47).
- 8.13.11. The operational phase would give rise to an indirect slight negative impact on the setting of one regionally significant structure, namely Castlegal House and

outbuildings (AHC 41), and one locally significant structure, namely a house (AHC 44).

8.13.12. Construction phase mitigation by architectural record, providing written account, measured drawings and a photographic survey would be applied to the three structures AHC 42, AHC 43 and AHC 47. During operation, landscape screening provided as part of the PRD would minimise visual impact on structures AHC 41 and AHC 44.

8.13.13. It is submitted that the PRD would have a slight negative residual impact on the setting of the two architectural heritage structures (AHC 41 and AHC 44). Beyond this, no significant residual impacts are anticipated to remain post adoption of mitigation measures.

8.13.14. Conclusion on Archaeology, Cultural Heritage and Architectural Heritage

Having regard to the above, I am satisfied that the benefits on cultural heritage sites within the zone of influence of the PRD would be largely positive in that archaeological features would be recorded prior to construction, and if required the sites identified would be notified to the Archaeological Survey of Ireland (ASI) unit of the National Monuments Service within the Department of Culture, Heritage and the Gaeltacht. Where impacts have been identified, as set out above, these would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on Archaeology, Cultural Heritage and Architectural Heritage.

8.14. **Landscape and Visual**

8.14.1. Landscape and visual effects are examined in Chapter 12 of the EIAR. The topography of the existing N16 varies from 50m above sea level adjacent to Sligo to a level of c.130m ASL close to Glencar lake. It undulates and meanders following the existing land topography. The N16 provides views across Glencar lake towards King's mountain to the north and it sits on the lower slopes of Cope's mountain to the south. The PRD is located within Glencar Valley, which is referenced in William Butler Yeats writings including the poems 'Towards Break of Day' and 'The Stolen Child'.

- 8.14.2. The PRD site is located proximate to four landscape character areas including: Sligo Lowland Agricultural Landscape, Sligo Urban Landscape, Glencar Lake Valley Landscape and Cope's Mountain Upland Landscape, the latter two having a high sensitivity to the type of change proposed. Visually significant vegetation is located at eight locations along the PRD route.
- 8.14.3. The PRD crosses through Normal Rural landscape and a Scenic Route on the existing N16 (from Leitrim County Boundary to Sligo), which aims to preserve views of Glencar Lake, Benbulbin and the Atlantic Ocean. The nearest Sensitive Rural Landscape area is located at the Cope's Mountain area east of the existing N16 at Castlegal and Lugatober. A further Sensitive Rural Landscape area is located to the west at King's Mountain. Cope's Mountain and Kings Mountain areas are considered visually vulnerable within the Sligo County Development Plan.
- 8.14.4. Policies of relevance in the Development Plan include P-LCAP-1 – to protect and enhance the physical landscape, visual and scenic qualities of County Sligo, P-LCAP-2, which aims to discourage any development which would be detrimental to the unique character of designated visually vulnerable areas, P-LCAP-3 – to preserve the scenic views listed in Appendix E of the Development Plan and P-LCAP-4 to control new development in designated sensitive rural landscapes. Scenic routes are listed in the EIAR and of greatest relevance is the N16 from Leitrim County boundary to Sligo that preserves views of Glencar Lake, Benbulbin and Atlantic Ocean.
- 8.14.5. The construction phase would be relatively short term and while activities associated with construction would undoubtedly be a departure on the landscape locally, such activities are nonetheless not an unfamiliar sight. The site selected for the construction compound is not within any visual vulnerable area and it would be reinstated at the end of the construction contract. Properties at close proximity to the PRD are stated would experience moderate to major visual impacts, but these would be short term in duration.
- 8.14.6. During operation, the PRD would introduce new built elements in the landscape, along the existing N16 including structures, cuttings and embankments, signage and lighting at the new roundabout at Drumkilsellagh.

- 8.14.7. In terms of landscape character areas impacts, it has been predicted that the greatest impact would be minor to moderate adverse impact on the Glencar Valley along the road, reducing to minor adverse impact beyond 1km.
- 8.14.8. There is a minor adverse impact predicted in the Sligo Lowland Agricultural Landscape, proximate to the PRD reducing to negligible to minor adverse beyond 1km. There would be no change to the Cope's Mountain Upland Landscape characteristics and no direct landscape impacts would result on the Sligo Urban Landscape.
- 8.14.9. Based on a review of the current Sligo County Development Plan, it has been predicted that there would be no significant landscape or visual effects for any relevant landscape policy and designations in the Plan, in particular with regards to Scenic Routes, Visually Vulnerable Areas and Sensitive Rural Landscapes. The PRD would maintain its status as a scenic route in the wider N16, preserving views of Glencar Lake, Benbulbin and the Atlantic Ocean.
- 8.14.10. A detailed visual impact assessment was carried out, which examined the potential views from sensitive visual receptors. Pre-mitigation, it is assessed that three properties would experience a major to substantial negative impact; five properties are predicted to have a moderate to major negative impact; three properties are predicted to have a minor to moderate negative impact; ten properties are predicted to have a minor negative impact; four properties are predicted to have negligible to minor negative impact, 29 properties are predicted to have No impact; one property has Minor beneficial impact; and two properties have moderate to major beneficial impact.
- 8.14.11. Landscape planting is proposed, in accordance with the NRA (TII) Guide to Landscape Treatment, generally comprising a screening woodland mix of Hybrid Oak, Scots Pine, Hawthorn, Hazel, Holly, Blackthorn, Goat Willow, Alder, Rowan and Birch. The road verges and unplanted side slopes would be seeded with a general (Grade II) grass seed mix with the exception of where rock cut occurs at Castlegal, which would be left exposed naturally. This visibility of rock exposure where significant bedrock cuttings is created is actively encouraged by GSI for reasons outlined under the heading of Soils and Geology above. It is a method which I am

satisfied based on other completed projects is also acceptable from a visual perspective, subject to compliance with safety requirements.

8.14.12. As planting becomes established, landscape impacts would decrease, and the PRD would read as an integral part of the landscape. Visual impacts would also be decreased as a result of landscape screening. Post-mitigation, it is assessed that no properties would experience a major to substantial negative impact; three properties are predicted to have a moderate to major negative impact; five properties are predicted to have a minor to moderate negative impact; three properties are predicted to have a minor negative impact; ten properties would experience negligible to minor negative, 33 properties are predicted to have no impact; one property has minor beneficial impact and two properties have moderate to major beneficial impact.

8.14.13. Conclusion on Landscape and Visual

In respect of the majority of receptors, I am satisfied that the impacts identified would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. I am therefore satisfied that the proposed development would not have any unacceptable significant direct, indirect or cumulative impacts on the landscape and visual environment. I am also satisfied that the landscape planting proposed would assist in assimilating the new aligned N16 into the receiving landscape and that it is acceptable and preferable, as proposed, that significant bedrock cuttings (at Castlegal) would remain visible as rock exposure.

Notwithstanding the conclusion reached in respect of the inability of proposed measures to fully mitigate the visual impact of the PRD on certain sensitive receptors, resulting in three receptors having moderate to major negative long term visual impacts and five having minor to moderate negative long term negative impact, it is considered that the residual impacts following mitigation would not justify a refusal of planning permission having regard to the nature and overall benefits of the proposed development.

8.15. Reasoned Conclusion

8.15.1. Having regard to the examination of environmental information contained above, and in particular to the EIAR and supplementary information provided by the applicant

and the submissions received from prescribed bodies and the observer in the course of the application, it is considered that the main significant direct and indirect effects of the proposed development on the environment are as follows.

- At a community level, the proposed development would have significant positive impacts (benefits) on Population and Human Health arising out of improved safety for all road users together with improved access to services and an overall enhanced journey experience. Where negative impacts have been identified as set out above including traffic delays and diversions during the course of construction, these would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. For a small number of householders, journeys to the north, including to Glencar Lough would require an 800m detour during the operation phase. It is considered that this residual impact following mitigation would not justify a refusal of planning permission having regard to the nature and overall benefits of the proposed development.
- Impacts on sensitive residential receptors arising from noise and vibration would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. At a localised area close to the most sensitive residential receptors, rock splitting rather than rock breaking is proposed which as a methodology is significantly quieter and has less of a vibration impact than rock breaking. The proposed development would result in positive impacts (benefits) for 11 properties who would experience a noticeable decrease in noise levels during the operation phase as a result of a low noise surface and a corresponding reduction in traffic noise generated.
- Impacts on key ecological receptors arising from release of sediment laden water runoff during construction, but which are proposed to be mitigated by design and avoidance in the first instance and thereafter by the adoption of specific measures including the development and adherence to a Construction and Environmental Management Plan which would include an Erosion and Sediment Control Plan and also the adherence to IFI guidelines when working on culverts and stream diversions. Consultation would continue

between the developer and the IFI and NPWS and a suitably qualified and experienced ecologist would be engaged to advise on the preservation of biodiversity. During the operation phase, the proposal for the implementation of a managed drainage system, incorporating surface-water containment and treatment measures, would improve the quantity and quality of surface water being discharged to the environment, with a consequent improvement on ecological receptors.

- Impacts on the landscape and visual environment as a result of the road infrastructure development including areas of deep excavations and high embankments. Landscape planting proposed would assist in assimilating the new aligned N16 into the receiving landscape and it is acceptable and preferable, as proposed, that deep bedrock cuttings (at Castlegal) would remain visible as rock exposure. Notwithstanding the conclusion reached in respect of the inability of the proposed measures to fully mitigate the visual impact of the PRD on certain sensitive receptors, resulting in three receptors having moderate to major negative long term visual impacts and five receptors having minor to moderate negative long term visual impacts, it is considered that the residual impacts following mitigation would not justify a refusal of planning permission having regard to the nature and overall benefits of the proposed development.

9.0 Appropriate Assessment

9.1. Introduction

- 9.1.1. This section of my assessment considers the likely significant effects of the proposed development on the relevant European sites in view of their conservation objectives. The site description and the details of the proposed development are set out in Section 2 and 3 above. The project would broadly comprise the upgrade of a section of the N16 National Primary road over a 2.5km length, at a location between the townlands of Drumkilsellagh at its southern end and Lugnagall at the northern end.
- 9.1.2. On a procedural matter, the Board should note that Natura Impact Statement (Volume 2 :Appendices) contains a number of inclusions as follows:

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

9.1.3. On review of one of the hard copies received by the Board, and which formed part of the compiled working file, the hard copy marked ‘Natura Impact Statement (Volume 2 :Appendices)’ does not contain the above enclosures, but instead contains a copy of the NIS itself in duplicate, a matter which appears to have been as a result of a copying error. However, the Board have been able to clarify that the public file available at the Board’s office and that which have been made available for viewing at the offices of Sligo County Council and the TII National Roads Project Office, each contain the aforementioned enclosures within Volume 2. A corrected copy of Volume 2 has also been placed on the Boards working file for ease of reference.

9.2. Appropriate Assessment Stage 1- Screening

9.2.1. The project was subject to Appropriate Assessment (AA) screening and I have examined the AA screening report. Fifteen European sites (SACs and SPAs) within a 15km radius of the PRD were considered to fall within the potential zone of influence of the PRD. These are listed in Table 3-1 in the applicant’s Appropriate Assessment Screening report and I have also set these out below together with their location relative to the PRD.

Table 1 – European sites within the zone of influence of the PRD

European Site name and site code	Location relative to the PRD
Ben Bulbin, Gleniff and Glenade Complex SAC (Site Code 00623)	1.3km north-east
Lough Gill SAC (Site Code 001976)	3.2km south
Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627)	3.3km west
Glenade Lough SAC (Site Code 001919)	9.7km north-east
Ballysadare Bay SAC (Site Code 000622)	10km south-west

Arroo Mountain SAC (Site Code 001403)	10.4km north-east
Union Wood SAC (Site Code 000638)	10.5km south
Streedagh Point Dunes SAC (Site Code 001680)	10.6km north-west
Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (Site Code 000625)	10.9km north-west
Unshin River SAC (Site Code 001898)	11km south
Sligo/Leitrim Uplands SPA (Site Code 004187)	18m east (Adjacent to the eastern boundary if the site)
Cummeen Strand SPA (Site Code 004035)	3.3km south-west/>4.5km downstream via surface water
Drumcliff Bay SPA (Site Code 004013)	4.1km west />5.09km downstream via surface water
Ballintemple & Ballygilgan SPA (Site Code 004234)	7.2km north-west
Ballysadare Bay SPA (Site Code 004129)	10km south-west

9.2.2. Other sites outside of this zone of influence were also examined with a finding of no potential for significant effects on sites located beyond the 15km buffer on the basis of separation distance and the lack of any complete source-pathway-receptor chain. Table 3-1 of the applicant's screening report also sets out the Qualifying Interests (QIs) / Special Conservation Interests (SCIs) for which the sites have been designated together with their Conservation Objectives.

9.2.3. The PRD is not located within any of the European sites and hence I would agree with the applicants finding of no significant effects as a result of direct impacts. In considering indirect impacts, 11 of the 15 European sites within the 15km potential buffer zone have been screened out, having regard to their location at a considerable distance from the PRD and the absence of any pathways for impacts between the proposed development and the European sites and that no complete impact source-pathway-receptor chain could be identified. In relation to Ben Bulbin, Gleniff and Glenade Complex SAC (Site Code 00623) and Lough Gill SAC (Site Code 001976), which are sites closest to the PRD and which were screened out by the applicant, I am satisfied based on the scientific information on file and informed

by my site visits that no hydrological connectivity exists between the PRD and these European sites and given the distance from the PRD, no potential for disturbance arising from construction noise or human activity would occur.

- 9.2.4. Having regard to the above, I am satisfied that significant effects individually or in combination with other plans and projects, on 11 European Sites resulting from indirect impacts can be excluded.
- 9.2.5. The screening assessment identified the potential for indirect effects on marine/surface water dependent QIs/SCIs arising from deterioration of surface water quality and pollution associated with the construction and operation phases of the development in respect of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627), Cummeen Strand SPA (Site Code 004035) and Drumcliff Bay SPA (Site Code 004013). Consequently, the potential for significant effects on these three sites, having regard to their conservation objectives cannot be excluded. The screening assessment also identified that based on proximity, the potential for significant effects in respect of Sligo/Leitrim Uplands SPA (Site Code 004187) could not be excluded.
- 9.2.6. Overall, I would agree with the conclusion reached at screening stage, that potential for significant effects cannot be screened out in respect of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (000627), Cummeen Strand SPA (004035), Drumcliff Bay SPA (Site Code 004013) having regard to their conservation objectives as they relate to marine and surface water dependent QIs and SCIs only. I am satisfied that there is no potential for disturbance of the defined SCI wintering waterbird species on the Cummeen Strand SPA (004035) and Drumcliff Bay SPA (Site Code 004013) arising from noise during construction activities noting the separation distance from this site. For clarity, the **QIs/SCIs** which have the potential to be impacted on have been screened in by the applicant as follows:

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (000627) QIs

1130 Estuaries

1140 Mudflats and sandflats not covered by seawater at low tide

1095 Sea Lamprey *Petromyzon marinus*

1099 River Lamprey *Lampetra fluviatilis*

1365 Harbour seal *Phoca vitulina*

Cummeen Strand SPA (Site Code 004035) SCIs

A999 Wetlands and Waterbirds

Drumcliff Bay SPA (Site Code 004013) SCIs

A999 Wetlands and Waterbirds

Based on proximity, the Sligo/Leitrim Uplands SPA (004187) SCIs are:

A103 Peregrine *Falco peregrinus*

A346 Chough *Pyrrhocorax pyrrhocorax*

9.3. Consultation

- 9.3.1. Comments received from IFI are noted which outline the potential for impact on watercourses discharging into Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627). IFI expressed no objection to the proposal subject to certain requirements including the full adoption of mitigation measures proposed by the applicant. It appears that no written comments were received from the NPWS in relation to European sites, though I note that the NPWS were consulted during the informal scoping stage and no issues appear to have been raised.

9.4. Appropriate Assessment Stage 1- Screening Conclusion

- 9.4.1. It is reasonable to conclude on the basis of information on the file, which I consider to be adequate in order to issue a screening determination, that the proposed development, individually or in combination with other plans or projects would not be likely to have a significant effect on European sites:-

- Ben Bulben, Gleniff and Glenade Complex SAC (Site Code 00623)
- Lough Gill SAC (Site Code 001976)
- Glenade Lough SAC (Site Code 001919)
- Ballysadare Bay SAC (Site Code 000622)
- Arroo Mountain SAC (Site Code 001403)
- Union Wood SAC (Site Code 000638)
- Streedagh Point Dunes SAC (Site Code 001680)
- Bunduff Lough and Machair/Trawalua/Mullaghmore SAC (Site Code 000625)

- Unshin River SAC (Site Code 001898)
- Ballintemple & Ballygilgan SPA (Site Code 004234)
- Ballysadare Bay SPA (Site Code 004129)

9.4.2. Potential for significant effects on the relevant QIs/SCIs of the following European Sites, noting the sites conservations objectives, cannot be screened out:

- Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627)
- Sligo/Leitrim Uplands SPA (Site Code 004187)
- Cummeen Strand SPA (Site Code 004035) and
- Drumcliff Bay SPA (Site Code 004013)

9.4.3. Accordingly, a Stage 2 Appropriate Assessment is required to determine the potential of the proposed development to adversely affect the integrity of these four European Sites.

9.5. Appropriate Assessment – Stage 2

9.5.1. The qualifying interests/special conservation interests and conservation objectives of the four European sites with potential for significant effects, i.e. the sites which were screened in for Appropriate Assessment are set out below.

Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627)

The relevant QIs for this SAC are:

- 1130 Estuaries
- 1140 Mudflats and sandflats not covered by seawater at low tide
- 1095 Sea Lamprey *Petromyzon marinus*
- 1099 River Lamprey *Lampetra fluviatilis*
- 1366 Harbour seal *Phoca vitulina*

9.5.2. Detailed conservation objectives (Version 01, September 2013) are available for this SAC, the overall aim being to maintain or restore the favourable conservation status of qualifying interests which is defined by a list of attributes and targets.

Cummeen Strand SPA (Site Code 004035)

9.5.3. The relevant SCIs of this SPA are:

A999 Wetlands and waterbirds

- 9.5.4. Detailed conservation objectives (Version 01, September 2013) are available for this SPA, the overall aim being to maintain the favourable conservation status of the qualifying interests which is defined by a list of attributes and targets.

Drumcliff Bay SPA (Site Code 004013)

- 9.5.5. The SCIs for this SPA are:

A999 Wetlands and waterbirds

- 9.5.6. Detailed conservation objectives (Version 01, September 2013) are available for this SAC, the overall aim being to maintain the favourable conservation status of the qualifying interests which is defined by a list of attributes and targets.

Sligo/Leitrim Uplands SPA (Site Code 004187)

- 9.5.7. The relevant SCIs for this SPA are:

A103 Peregrine *Falco peregrinus*

A346 Chough *Pyrhocorax pyrrhocorax*

- 9.5.8. Generic conservation objectives (Version 06, February 2018) are available for this SPA, the overall aim being to maintain or restore the favourable conservation condition of the bird species listed as SCIs for this SPA.

9.5.9. **Impact Assessment**

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

- 9.5.10. At the outset, I would agree that these three sites can be assessed together because the identified pathway for impact on all three sites is the same and they are all connected.

- 9.5.11. As the PRD is not within the above designated sites, and as such there would be no potential for direct impacts on their QIs/SCIs. There is potential for indirect impact on the marine/surface water dependent QIs/SCIs of Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC, Cummeen Strand SPA and Drumcliff Bay SPA in the form of

deterioration of surface water quality resulting from pollution, associated with the construction and operational phases of the development.

- 9.5.12. Measures proposed to prevent and/or avoid impact have been considered in the project design. An overarching measure is the adherence to the environmental management framework set out in the outline plan submitted with the application (OESCP), which is contained within Volume 2 of the NIS, and which sets out the environmental management framework to be adhered to during pre-commencement, construction and operational phases of the development. It also reflects the mitigation measures and environmental commitments put forward in the EIAR and which I am satisfied that if implemented would be effective. During the operation of the PRD, drainage would be improved and would incorporate active surface water management and pollution prevention measures. I agree as is submitted that this would result in a greater level of ecological protection in the operation phase than currently exists.
- 9.5.13. Overall, I am satisfied that, subject to the adoption of mitigation measures proposed, the PRD would not adversely affect the integrity of the aforementioned designated sites and no reasonable scientific doubt remains as to the absence of such effects.

Sligo /Leitrim Uplands SPA

- 9.5.14. There is no stated suitable nesting habitat for **Chough** within the land acquisition boundary and it is submitted that the lands proposed to be acquired are sub-optimal for foraging Chough, as suitable habitats include steep slopes below cliffs. The closest suitable breeding habitat for the Chough occurs on the cliff of Cope's Mountain, c.500m east of the northern tie in with the existing N16. No chough were recorded during field surveys in the 2018 breeding season, which it is stated ties in with literature review. Based on scientific knowledge, it is stated that choughs predominately feed within a 300m radius of the nest site and therefore as the PRD would be located c.500 from nesting habitats, no loss of habitat within the 300m core foraging buffer is anticipated. Apart from the northern tie-in with the existing N16, for the most part the new road alignment is further removed from the Cope's mountain section of the SPA than the existing N16 road alignment.

- 9.5.15. There is no suitable nesting habitat for **Peregrine** within the land acquisition boundary. The closest suitable breeding habitat for the Peregrine occurs on the cliff of Cope's Mountain, c.500m east of the northern tie in with the existing N16. It is stated that this area is traditionally utilised by one breeding pair of Peregrine. No Peregrine were recorded during field surveys in the 2018 breeding season. It is also stated that literature suggests that breeding Peregrines are most likely disturbed by activities above their nests and that this would imply that the heights of nests could therefore be interpreted as distances at which human activity could occur without resulting in serious disturbance. In addition, it is submitted that the pair of breeding Peregrine on Cope's mountain would be habituated to human activity and that the works associated with the northern tie-in would be commensurate with ongoing levels of traffic and agricultural activity in the area.
- 9.5.16. Similarly to consideration of nesting habitat for Chough, apart from the northern tie in with the existing N16, the majority of the new road alignment is further removed from the Cope's mountain section of the SPA than the existing N16.
- 9.5.17. In summary, no potential for habitat loss, displacement or disturbance to breeding Chough or Peregrine are anticipated as a result of the PRD during its construction phase. As there would be no increase in traffic volume as a result of the PRD, no potential for habitat loss, disturbance or displacement impacts are anticipated during operation. It can therefore be readily concluded that the PRD would not adversely affect the integrity of this designated site and no reasonable scientific doubt remains as to the absence of such effects.

9.6. **In-combination effects**

- 9.6.1. I note that the NIS examines the potential cumulative impacts that could possibly arise, with due cognisance to the Sligo County Development Plan 2017-2023, information from Sligo County Council Planning register (October 2018), Sligo County Council Water Services Department, previous An Bord Pleanála decisions and information from Coillte and Eirgrid websites. The only approved project in proximity of the PRD is the N4-N15 Sligo Improvement Scheme (Case Ref: PL21.JP0048) which relates to an online improvement of the existing N4 in Sligo town, c.4km south of the PRD southern boundary and the Board's decision on

Appropriate Assessment for that project reached a conclusion of no significant effects.

- 9.6.2. No potential for significant cumulative and/or in-combination pollution, disturbance, displacement or habitat loss effects on any of the QIs/SCIs has been identified on any of the relevant four European sites as a result of the development, having regard to their conservation objectives. I am therefore satisfied that no cumulative / in-combination effects are likely to arise.

9.7. **Appropriate Assessment – Stage 2 Conclusion**

- 9.7.1. On the basis of the information provided with the application, including the Natura Impact Statement, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, the submissions received and the assessment carried out above, I am satisfied that the proposed development, individually or in combination with other plans or projects would not adversely affect the integrity of European Sites Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627), Sligo/Leitrim Uplands SPA (Site Code 004187), Cummeen Strand SPA (Site Code 004035) and Drumcliff Bay SPA (Site Code 004013) or any other European site, in view of the sites' Conservation Objectives.

10.0 **Recommendation**

- 10.1. On the basis of the above assessment I recommend that the Board **APPROVE** the proposed development in accordance with the drawings and documents submitted based on the following reasons and considerations, and subject to the conditions set out below.

REASONS AND CONSIDERATIONS

In coming to its decision, the Board had particular regard to:

- a) the relevant provisions of the Roads Act 1993, as amended, and the regulations made thereunder;
- b) the relevant provisions of EU Directive 2014/52/EU, amending Directive 2011/92/EU (EIA Directive);
- c) the relevant provisions of Directive 92/43/EEC (Habitats Directive) and Directive 79/409/EEC as amended by 2009/147/EC (Birds Directives), Wildlife

Acts 1976-2017 and the European Communities (Birds and Natural Habitats) Regulations 2011, as amended;

- d) European, national policies and objectives, inclusive of those set out in The Trans-European Transport Network (TEN-T) policy, National Planning Framework – Ireland 2040 (NPF) and Smarter Travel – A Sustainable Transport Future 2009-2020;
- e) the provision of regional and local policy including the provisions of the Regional Planning Guidelines for the Border Region 2010-2022, Draft Regional Spatial & Economic Strategy (RSES) for the Northern and Western Regional Assembly and the Sligo County Development Plan 2017-2023;
- f) the scheme constituting a key transportation element for the improvement of the N16 National Primary Road;
- g) the interest of road safety noting the seriously substandard condition of the existing road network and the design, layout and alignment of the Proposed Road Development;
- h) the submissions on file, including the Environmental Impact Assessment Report, Natura Impact Statement and associated documentation, and range of mitigation measures including the Schedule of Commitments set out in the documentation received, and
- i) the submissions made in relation to the application and the report and recommendation of the Inspector.

Appropriate Assessment - Stage 1 (Screening)

The Board agreed with and adopted the screening assessment carried out and conclusions reached in the Inspector's report that Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627), Cummeen Strand SPA (Site Code 004035), Drumcliff Bay SPA (Site Code 004013) and Sligo/Leitrim Uplands SPA (Site Code 004187) are the only European Sites in respect of which the proposed road development has the potential to have a significant effect.

Appropriate Assessment - Stage 2

The Board considered the Natura Impact Statement and associated documentation submitted with the application for approval, the mitigation measures contained therein, the submissions and observations on file, and the Inspector's assessment.

The Board completed an appropriate assessment of the implications of the proposed road development for the affected European Sites, namely Cummeen Strand/Drumcliff Bay (Sligo Bay) SAC (Site Code 000627), Cummeen Strand SPA (Site Code 004035), Drumcliff Bay SPA (Site Code 004013) and Sligo/Leitrim Uplands SPA (Site Code 004187) in view of those sites' conservation objectives. The Board considered that the information before it was adequate to allow the carrying out of an appropriate assessment.

In completing the appropriate assessment, the Board considered, in particular, the following:

- a) the likely direct and indirect impacts arising from the proposed road development both individually or in combination with other plans or projects;
- b) the mitigation measures which are included as part of the current proposal, and
- c) the conservation objectives for the European Sites.

The Board accepted and adopted the appropriate assessment carried out in the Inspector's report in respect of the potential effects of the proposed road development on the aforementioned European Sites, having regard to the sites' conservation objectives.

In overall conclusion, the Board was satisfied that the proposed road 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.

Environmental Impact Assessment

The Board completed an environmental impact assessment of the proposed development, taking into account:

- a) the characteristics, nature, scale and location of the proposed road development;
- b) the Environmental Impact Assessment Report and associated documentation submitted in support of the application;
- c) the submissions received from the observer and prescribed bodies in the course of the application;
- d) the applicant's response to submissions and
- e) the Inspector's report;

The Board agreed with the summary and examination, set out in the Inspector's report, of the information contained in the Environmental Impact Assessment Report and associated documentation submitted by the applicant and submissions made in the course of the application. The Board is satisfied that the Inspector's report sets out how these were addressed in the examination and recommendation and are incorporated into the Board's decision.

The Board considered that the Environmental Impact Assessment Report, supported by the documentation submitted by the Roads Authority, provided information which is reasonable and sufficient to allow the Board to reach a reasoned conclusion on the significant effects of the proposed road development on the environment, taking into account current knowledge and methods of assessment. The Board is satisfied that the information contained in the Environmental Impact Assessment Report, is up to date and complies with the provisions of EU Directive 2014/52/EU, amending Directive 2011/92/EU.

Reasoned Conclusions on the Significant Effects

The Board considered that the main significant direct and indirect effects of the proposed development on the environment are, and would be mitigated as follows:

- At a community level, the proposed development would have significant positive impacts (benefits) on Population and Human Health arising out of improved safety for all road users together with improved access to services and an overall enhanced journey experience. Where negative impacts have been identified as set out above including traffic delays and diversions during the course of construction, these would be avoided, managed or mitigated by measures forming part of the proposed development, proposed mitigation measures and measures within suitable conditions. For a small number of householders, journeys to the north, including to Glencar Lough would require an 800m detour during the operation phase. It is considered that this residual impact following mitigation would not justify a refusal of planning permission having regard to the nature and overall benefits of the proposed development.
- Impacts on sensitive residential receptors arising from noise and vibration would be avoided, managed or mitigated by measures forming part of the

proposed development, proposed mitigation measures and measures within suitable conditions. At a localised area close to the most sensitive residential receptors, rock splitting rather than rock breaking is proposed which as a methodology is significantly quieter and has less of a vibration impact than rock breaking. The proposed development would result in positive impacts (benefits) for 11 properties who would experience a noticeable decrease in noise levels during the operation phase as a result of a low noise surface and a corresponding reduction in traffic noise generated.

- Impacts on key ecological receptors arising from release of sediment laden water runoff during construction, but which are proposed to be mitigated by design and avoidance in the first instance and thereafter by the adoption of specific measures including the development and adherence to a Construction and Environmental Management Plan which would include an Erosion and Sediment Control Plan and also the adherence to IFI guidelines when working on culverts and stream diversions. Consultation would continue between the developer and the IFI and NPWS and a suitably qualified and experienced ecologist would be engaged to advise on the preservation of biodiversity. During the operation phase, the proposal for the implementation of a managed drainage system, incorporating surface-water containment and treatment measures, would improve the quantity and quality of surface water being discharged to the environment, with a consequent improvement on ecological receptors.
- Impacts on the landscape and visual environment as a result of the road infrastructure development including areas of deep excavations and high embankments. Landscape planting proposed would assist in assimilating the new aligned N16 into the receiving landscape and it is acceptable and preferable, as proposed, that deep bedrock cuttings (at Castlegal) would remain visible as rock exposure. Notwithstanding the conclusion reached in respect of the inability of the proposed measures to fully mitigate the visual impact of the PRD on certain sensitive receptors, resulting in three receptors having moderate to major negative long term visual impacts and five receptors having minor to moderate negative long term visual impacts, it is considered that the residual impacts following mitigation would not justify a

refusal of planning permission having regard to the nature and overall benefits of the proposed development.

The Board completed an environmental impact assessment in relation to the proposed development and concluded that, subject to the implementation of the mitigation measures referred to above, and other measures set out in the Schedule of Commitments submitted as part of the EIAR which accompanied the application and subject to compliance with the conditions set out below, the effects on the environment of the proposed development, by itself and in combination with other development in the vicinity, would be acceptable. In doing so, the Board adopted the report and conclusions of the Inspector.

Proper Planning and Sustainable Development

It is considered that, subject to compliance with the conditions set out below, the proposed road development would be in accordance with relevant European, national, regional and local planning policy and objectives. It is also considered that the proposed road development has been justified in terms of its need and would result in an improvement in terms of road safety for all road users. The delivery of the proposed road development would be in the interest of the common good and would, overall, be in accordance with the proper planning and sustainable development of the area.

11.0 Conditions

1. The development shall be carried out and completed in accordance with the plans and particulars, lodged with the application, including the mitigation measures specified in the Environmental Impact Assessment Report, except as may otherwise be required in order to comply with the following conditions. Where such conditions require details to be prepared by the Roads Authority, these details shall be placed on file prior to commencement of the development and retained as part of the public record.

Reason: In the interest of clarity.

2. (a) All mitigation measures identified in the Environmental Impact Assessment Report including the Schedule of Environmental Commitments (Chapter 16) submitted by the Roads Authority with the application on the 18th day of February 2019 shall be implemented in full as part of the delivery of the proposed road development.

(b) Prior to commencement of the development, the Roads Authority, or any agent acting on its behalf, shall prepare a Construction and Environmental Management Plan generally in accordance with the commitments set out in the Environmental Impact Assessment Report and the Schedule of Environmental Commitments contained therein. It shall include a developed Erosion and Sediment Control Plan based on the principles of the outline Erosion and Sediment Control Plan which was submitted with the application on the 18th February 2019. The CEMP shall include specific proposals as to how the CEMP will be measured and monitored for effectiveness, and it shall be on file prior to the commencement of development and retained as part of the public record.

Reason: In the interest of protecting the environment.

3. Prior to commencement of the development, the Roads Authority or any agent acting on its behalf shall appoint a person with appropriate expertise to ensure that the ecological mitigation measures identified in the Environmental Impact Assessment Report including the Schedule of Commitments and Summary of the Proposed Ameliorative Measures are implemented in full.

Reason: In the interest of protecting the ecological features of the environment.

4. The Roads Authority or any agent acting on its behalf shall appoint a suitably qualified geotechnical engineer/engineering geologist to investigate exposed surfaces and any ground within the zone of influence of the proposed road development for the presence of karst features and the appointed specialist shall advise and oversee the appropriate treatment of any karst features

exposed, generally in accordance with the mitigation proposals set out in the Schedule of Commitments set out in the EIAR.

Reason: In the interest of protecting any karst features.

Patricia Calleary.
Senior Planning Inspector

9th July 2019.