

Sustainable Development Evaluation of Road Infrastructure Programmes and Projects

Section 1/2

Evaluation of the Assessment of the Impacts of Road Projects on Biodiversity

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The Foundation for the Economics of Sustainability

Cad a dhéanfaimid **feasta** gan adhmaid? Tá deireadh na gcoillte ar lár
'What will we do in the future without wood? The end of the forests has come'

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SOCIO ECONOMICS

The Socio Economics Section of the Environmental RTDI Programme addresses the need for research in Ireland to inform policymakers and other stakeholders on a range of questions in this area. The reports in this series are intended as contributions to the necessary debate on Socio Economics and the environment.

Part 1:

The Context and Criteria for Assessment of Impacts on Biodiversity

The processes and criteria of assessing the impacts of road developments schemes on biodiversity must be viewed in the context of the relevant International, European, and National policy and legislation. The main criteria for such assessments are outlined below.

Habitats Directive (92/43/EEC):

The Habitats Directive (92/43/EEC) on the conservation of natural habitats and of wild fauna and flora lays out measures for the protection of wild flora, fauna, and habitats (as listed in the Annexes of the directive) that are in need of protection. The main aim of this Directive is to “*promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements*” under the general objective of sustainable development.

Article 6 of the Habitats Directive imposes obligations on the Irish authorities in relation to all developments within Special Areas of Conservation.

Article 6(2) takes as a starting point the prevention principle:

‘Member States shall take appropriate steps to avoid, in the special areas of conservation, the deterioration of natural habitats and the habitats of species as well as disturbance of the species for which the areas have been designated, in so far as such disturbance could be significant in relation to the objectives of this Directive’.

Deterioration is defined as the physical degradation of a habitat. It can be directly assessed through a series of indicators, for example, a reduction in the area or characteristics of the habitat.

Article 6(3) states that

“Any plan or project not directly connected with or necessary to the management of the site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subject to appropriate assessment of its implications for the site in view of the site’s conservation objectives. In the light of the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”

Article 6(4) states:

If, in spite of a negative assessment of the implications for the site and in the absence of alternative solutions, a plan or project must nevertheless be carried out for imperative reasons of overriding public interest, including those of a social or economic nature, the Member State shall take all compensatory measures necessary to ensure that the overall coherence of Natura 2000 is protected. It shall

inform the Commission of the compensatory measures adopted. Where the site concerned hosts a priority natural habitat type and/or a priority species, the only considerations which may be raised are those relating to human health or public safety, to beneficial consequences of primary importance for the environment or, further to an opinion from the Commission, to other imperative reasons of overriding public interest.

Environmental Impact Assessment Directive (assessment of the effects of certain public and private projects on the environment (85/337/EEC) as amended by 97/11/EC

Article 3 states:

“The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 11, the direct and indirect effects of a project on the following factors:

- human beings, fauna and flora;
- soil, water, air, climate and the landscape;
- material assets and the cultural heritage;
- the interaction between the factors mentioned in the first, second and third indents.”

Article 5(3) states that

“The information to be provided by the developer in accordance with paragraph 1 shall include at least:

- a description of the project comprising information on the site, design and size of the project,
- a description of the measures envisaged in order to avoid, reduce and, if possible, remedy significant adverse effects,
- the data required to identify and assess the main effects which the project is likely to have on the environment,
- an outline of the main alternatives studied by the developer and an indication of the main reasons for his choice, taking into account the environmental effects,
- a non-technical summary of the information mentioned in the previous indents.”

The United Nations Convention on Biological Diversity and the European Biodiversity Strategy

The main European Biodiversity Policy is ‘Communication to the Council and Parliament on a European Community Biodiversity Strategy’ (COM (1998) 42). The overall aims of the strategy are to prevent and attach the causes of significant reduction or loss of Biodiversity in order to reverse current trends of Biodiversity loss. The adoption of this Biodiversity Strategy is an important step towards implementing the most important obligations of the United Nations Convention on Biological Diversity (CBD) to which the European Community is party.

The Communication sets out the need for “monitoring and continuous assessment” of biodiversity in the Community, as well as of the pressures and threats that may affect them, via a “system of indicators based on a species and ecosystems approach”. The “fragmentation of habitats by linear transport infrastructure or sites designated under NATURA 2000” is one of the few indicators specifically suggested in the communication.

The strategy specifically calls for integration of biodiversity concerns in to sectors, citing specific objectives for the ‘energy and transport’ sector. One of the objectives of the strategy under the transport sector is “to minimize the impacts on biodiversity of transport infrastructure by optimizing the capacity and efficiency of the existing infrastructure and, for new infrastructure, giving full consideration to environmental concerns”.

The strategy then states that transport does not require a new specific Action Plan, as “the implementation of adequate environmental assessment procedures should be adequate to achieve the biodiversity objectives” in this policy area. In this light it is of the utmost importance to ensure that Environmental Impact Assessment procedures relating to biodiversity are sufficiently adhered to if we are to achieve our commitment under the Convention on Biological Diversity.

Using these (abovementioned) criteria for an assessment of the sustainability of current transport development in Ireland, in terms of the conservation and sustainable use of biodiversity, three case studies are presented and assessed. In each case the assessment of alternatives is examined; the potential threats of the development to biodiversity, protected species, and designated sites; mechanisms for avoiding damage to protected ecosystems incorporated in the EIA procedures and granting of permissions; and the adequacy and appropriateness of mitigations proposed where damage is likely.

Part 2: Case studies for assessment of Biodiversity Impacts
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Case Study 1. Galway to East Ballinasloe

Introduction:

On the 20th August 2004 an application including and EIS for a new road to replace the N6 from Doughiska, Galway, to Beagh, east of Ballinasloe, was lodged to An Bord Pleanala by Galway County Council. The Oral Hearing was held between November 2004 and January 2005. The An Bord Pleanala inspector furnished his report in April 2005 and the Board granted permission on the 13th June 2005.

This stretch of the dual carriageway crosses the River Suck and its floodplain which is a Special Protection Area for Birds (SPA)(site code 4097) and a National Heritage Area (NHA).

The Environmental Impact Assessment:

1) Consideration of alternative route options (section 4.3)

The EIS states that route selection was based on the avoidance of sensitive areas, under headings such as agriculture, air quality and noise, aquatic and terrestrial ecology, visual impacts, and so on. However there was no assessment evident of the impact to the several priority species that are found in the Protected site (River Suck Special Protection Area and National Heritage Area) which the road will cross, in the assessment of options for site selection. This is a most important omission considering the value of this habitat to the Habitats Directive protected species: Bewick's Swan, Whooper Swan, Greenland White-fronted Goose, and Golden Plover that the road may impact.

2) The Non Technical Summary:

No consideration of the protected wildfowl, in particular the Greenland White Fronted Geese, was given in the Non-tech summary of the Environmental Impact Statement, which states that (p.21) that *“a number of designated areas are located within 5km of the proposed development and these were a factor in the original route selection, in particular the Suck Callows located in the floodplain of the River Suck approximately 5km south of Ballinasloe”*. It then goes on to state that these callows are a candidate Special Area of Conservation and a SPA. However, the Duchas /National Parks and Wildlife Service (NPWS) map of the designated sites shows that the NHA/ SPA designation runs right through Ballinasloe from the NW to the SE, and not, as stated in this section, located 5 km south of Ballinasloe. The NPWS site synopsis states that it *“is an important site for wintering waterfowl”* particularly to the *“internationally important Greenland White-fronted Goose flock that is based along the Suck”*.

The EIA also states the following in relation to the Birdlife along the route:
“Birdlife along the route is typical of central Ireland comprising grassland species such as rook, jackdaw, golden plover, magpie and woodpigeon with some pheasant and skylark. Meadow pipits occur in summer in rough grassland and more widely in winter. Sparrow-hawks and kestrels were also recorded. Smaller birds such as chaffinch, robin, blackbird, song thrush, dunnock, wren, golcrest, and blue tit were recorded in hedgerows and near scrub and woodland. Snipe and Curlew were widespread in wet grassland. Flocks of Lapwing were also recorded particularly in grassland habitats. Several types of butterflies were also recorded during site visits.

“Along much of the proposed scheme, there are no sensitive habitats significantly impacted. The route may, however, impact a small section of important habitat around Doughiska (protected limestone pavement priority habitat). In addition the scheme may give rise to fragmentation and potential habitat loss and may also impact on protected faunal species such as badgers and bats”.

Whilst there is much detail in the technical summary of these songbirds found along the route, there is no specific reference to the rare and protected wildfowl, other than referring in the paragraph on the Suck callows to *“a regular presence of wildfowl and waders that are of national and international importance.”* No specific protected wildfowl species are listed, whilst the songbirds are listed in detail.

3) Potential Impacts as described in the main body of the Environmental Impact Statement and as submitted by the relevant authorities

At 6.3.2: Fauna, under the heading of birds, there is extensive description of the many songbirds recorded along the route, including grassland and hedgerow species which are mostly not considered particularly sensitive and as such are not included in the Annexes of the Birds Directive.

The description of Wetland birds is as follows: *“Wetland birds that nest along the route Mallard, moorhen, swans, grey heron and snipe, while the Auhrim lakes and the River Suck attract additional wintering wildfowl. Many areas of wet grassland provide feeding for snipe and curlew in winter while golden plover and lapwing are seen in drier fields, particularly in the Moyode area”*. There is a distinct lack in this section of any mention of the Annex 1 wildfowl species that are listed for the River Suck callows in the published Duchas Special Protection Area for birds (SPA) site information, with the exception of the Golden Plover. The species listed for the SPA are Bewick’s Swan, Whooper Swan, Greenland White-fronted Goose, Golden Plover, in addition to Ireland’s most threatened bird species, the Corncrake (Special Protection Areas for Birds in Ireland, Duchas / Government of Ireland, 2002).

At 6.5.18 the protected nature of the River Suck Callows and some of the above mentioned species are listed here as the reason that the site is designated as an HNA and SPA, though the fact that they are Annex 1 species under the Birds Directive is not mentioned.

It goes on to state that the route through this area is on *“poorly developed wetland vegetation”* and that *“the amount of natural habitat that will be disturbed is small”* and there is only *“likely to be a slight impact on nesting snipe, which may move away to breed although they will still feed here”*

“According to table 6.2 the impact at a value A ecological site would determine a severe impact, however due to the small size and quality of habitat affected the impact is related as minor”

The submission by National Parks and Wildlife Service (Appendix BX1) on this development states that the crossing of the Suck *“will involve direct impacts on a small part of the River Suck Callows Special Protection Area and Suck River Callows, Castlecoote-Shannonbridge proposed Natural Heritage Area”*

4) Adequacy of the Environmental Impact Statement:

Further inadequacies in the EIS were identified in the department of Environment Heritage and Local Governments submission to the Board. These include:

- the lack of assessment of impacts on linear habitats such as hedgerows, deemed as significant loss by the Department, and subsequent impacts on bats (also protected under the Habitats Directive), and failure to include mitigation for these impacts
- failure to carry out otter surveys as part of the EIS and thus assess impacts on this Habitats Directive protected species
- failure to carry out a rare plant survey on a quarried esker ridge that will be lost through construction
- the use of revegetated cutover bog of ecological significance that is to be used for storage of excavated peat and silt
- failure to refer to four Annex II aquatic species (River Lamprey, Brook Lamprey, White-clawed Crayfish and Salmon) that according to the National Parks and Wildlife Service “*have been referred to as widely present in watercourses that will be impacted by the road*” and hence a lack of mitigation measures for these protected species
- failure to refer to “*potential indirect impacts*” on Rashane Turlough SAC/pNHA and SPA which is an “internationally important site”

Some of these issues are subsequently addressed in the inspectors report although insufficiently. For example the issue of the removal of possible rare plant species on the esker is to be addressed by “*leaving the roadsides here to revegetate naturally to maintain calcareous flora*”. It is not possible for such rare flora, if they do exist, to revegetate naturally under such circumstances, indeed this is why they are rare.

5) Mitigation measures

Under the subheading of Fauna –Birds, “*advice from a swan expert will be obtained in relation to the design of the river Suck Bridge to limit any potential impacts on this species.*” No further mitigation measures were proposed in the Environmental Impact Statement in relation to birds, including no reference to any potential impacts or mitigation measures relevant to the Annex 1 species Greenland White-fronted Goose, Golden Plover, Hen harrier, Merlin, Corncrake, and Ruff.

National Parks and Wildlife Service stated in their submission to An Bord Pleanala (Appendix BX1) that “*consideration of the likely impacts on birds as a result of construction and operation of the new road, including impacts on the SPA is in our opinion insufficient. There should be further consideration of mitigation measures to reduce impacts on breeding and wintering birds along the route and in the SPA*”.

There is no evidence that An Bord Pleanala requested further information on this matter. The An Bord Pleanala Inspectors report then states that “*both the Natural Heritage Area and the SPA extend along and include the River Suck. Any route alignment south of Ballinasloe will require the crossing of these conservation areas. However given the location of the road including the proposed bridge the impact on the conservation areas should not be significant*”

There is no reference in the inspectors report to the Habitats Directive protected aquatic species (River Lamprey, Brook Lamprey, White-clawed Crayfish and Salmon) for which concern is raised by the Department of Environment, Heritage, and Local Government, nor are any specific mitigation measures proposed for these. The report does, however, state that “*pollution of these waters may arise*” and that “*permanent loss of stream side habitat is also a possibility*”.

The report states that “*No specific surveys were undertaken in relation to Crayfish (An Annex II species - Habitats Directive) but Crayfish were recorded in the electro-fishing process as were lampreys. The latter are not a protected species under the Wildlife Act unless it is within a Special Area of Conservation*”. However, Lamprey are listed under Annex II of the Habitats Directive, meaning that they have the full protection of the Directive whether in or outside of a protected site. In this case it appears that neither was the monitoring sufficient for these protected species, nor do the mitigation measures appear to be sufficient to avert possible significant impacts on these rare and protected species as required under the Habitats Directive.

In relation to terrestrial environment issues the inspectors report states that “*the mitigation measures identified are satisfactory and the proposed scheme is acceptable in relation to this [Terrestrial environment (Flora and Fauna)] issue*”

In the ‘Reasons and Considerations’ of the An Bord Pleanála decision it is stated that the decision to grant consent for the construction of the proposed road development is based on the premise that “*the proposed road development would not adversely affect the integrity of any European site*”. This statement appears to be made in the absence of any further investigation of the impacts on a European conservation site alleged to be required by the Department of Environment, Heritage, and Local Government in their written submission, and in the absence of any additional mitigation measures for protected species within the site.

Case Study 2

M7 Portlaoise - Castletown / M8 Portlaoise to Cullahill

Introduction

This scheme involves new roads for the N7 and N8 in addition to improvement works for existing roads associated with the scheme. The Scheme, as proposed, comprises 40 kilometres of Motorway, 2.2 kilometres of single carriageway link road and 15 kilometres of realigned link roads. The road is to operate as a Public Private Partnership scheme.

The Environmental Impact Statement for this scheme was published in December 2003, the application was lodged to An Bord Pleanála on 15th January 2004, and the oral hearing was held in March 2004. An Bord Pleanála granted consent on 29th October 2004.

The road impacts on at least 20 sites of ecological significance, and crosses The River Barrow / River Nore Special Area of Conservation and Natura 2000 European site in two locations. This site has been designated for the presence of several Annex II aquatic species including the Freshwater Pearl Mussel, Lamprey, Crayfish, and Salmon. According to the National Parks and Wildlife Service site synopsis:

“The site is very important for the presence of a number of EU Habitats Directive Annex II animal species including Freshwater Pearl Mussel (*Margaritifera margaritifera* and *M. m. durrovensis*), Freshwater Crayfish (*Austropotamobius pallipes*), Salmon (*Salmo salar*), Twaite Shad (*Alosa fallax fallax*), three Lamprey species - Sea (*Petromyzon marinus*), Brook (*Lampetra planeri*) and River (*Lampetra fluviatilis*), the marsh snail *Vertigo moulinsiana* and Otter (*Lutra lutra*). This is the only site in the world for the hard water form of the Pearl Mussel *M. m. durrovensis* and one of only a handful of spawning grounds in the country for Twaite Shad.”

The Environmental Impact Statement

1) Adequacy of the Environmental Impact Statement and of Mitigation measures:

The Environmental Impact Statement states in the non-technical summary, under ‘Flora and Fauna’, that “*provided the mitigation measures are effective, there should be no significant impacts on the integrity of the River Nore cSAC*”

The Environmental Impact Statement recognises the importance of the Freshwater Pearl Mussel (*Margaritifera margaritifera*) and its high protection status under the Habitats Directive. It also recognises that the Nore Pearl mussel (*Margaritifera margaritifera durrovensis*), present only in a small stretch of the Nore downstream from one of the crossings, is threatened with extinction.

The crossing site was surveyed for the presence of this mussel: *“the in-river survey at the proposed crossing point indicated that the substrate was not suitable for the pearl mussel at the proposed crossing and no signs of mussel were observed. As the habitat was unsuitable for the pearl mussel, no further survey was undertaken.”*

The technical summary of the Environmental Impact Statement recognises that *‘potential indirect impacts on the River Nore, such as an increase in siltation or an increase in the discharge of polluting substances could have serious implications for the continued survival of certain Annex II species, notably the Irish Pearl mussel’*.

In section 3.5.2 of the EIA it is stated that there will be *“temporary negative impacts at all crossing points of watercourses at the construction phase”*. These impacts include siltation of the watercourse. *“As a result there will be knock-on effects for local fish and lamprey populations and their spawning habitat, and for aquatic invertebrates”*.

The mitigation measures proposed in section 3.6 for these important aquatic habitats include the following: *“the bridge abutments and associated construction works area will be a minimum of 3m from the edge of the river bank in order to mitigate any impacts on the river channels or riparian habitats”*. Such mitigation measures for the indirect impacts on the freshwater pearl mussels and the other rare and protected aquatic species are not sufficient for protecting these sensitive species. Instead the issue is dealt with by conditions to be stipulated in the contract documents that will require the contractor to develop a ‘Water Quality Management Plan’.

Concerns were also raised by National Parks and Wildlife Service regarding the adequacy of aspects of the mitigation measures on aquatic species and habitats as proposed in the Environmental Impact Statement in their submission to An Bord Pleanála (Annex BX2).

The Habitats Directive (Article 6(3)) specifically requires that *“the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned”*.

Article 5 of Council Directive 97/11/EC on the assessment of the effects of certain public and private projects on the environment states *“projects for which an assessment is required should be subject to a requirement for development consent”* and that *“the assessment should be carried out before such consent is granted”*

Leaving the mitigation measures for water quality to be determined at the construction phase or after having granted consent for the development is not sufficient within the terms of European Environmental Impact Assessment Directives. There is also a lack of transparency in this method of mitigation, and enforcement of such a management plan does not appear to be adequately accounted for.

2) An Bord Pleanála and Proposed Mitigation Measures for Completion of the Assessment:

Other, more sufficient mitigation measures, were subsequently proposed at the An Bord Pleanála Oral hearing for this development, where the issue of water quality and protected aquatic species, in particular the Pearl Mussel, was an issue.

The EIA Directive (97/11/EC) specifically states in Article 2 that “*member states shall adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment...are made subject to a requirement for development consent and an assessment with regard to their effects*”.

Article 8 then requires that “*the results of consultations and information gathered pursuant to [the EIA procedure] must be taken in to consideration in the development consent procedure.*”

On the subject of Ecology, the An Bord Pleanála inspector’s report states (section 5.3.6) that “*On the proposed route, there is a large dependence on the water quality management plan proposed to be set as part of the Employer’s Requirements during construction. This Management Plan is aimed at reducing the risk of siltation by use of attenuation ponds. Effective management of these ponds is a challenging task. The successful enforcement of the plan and the achievement of the objectives are more critical the closer the outfall point is to the habitat of the pearl mussel and other aquatic life.*”

Evidence given by Ireland’s foremost expert in Pearl Mussels states that “*in carrying out these compensatory works the National Roads Authority would be contributing to an improvement in the status of Margaritifera Durrovensis which would more than adequately compensate for a temporary and minor increase in silt in the river. The compensatory works would also provide the National Parks and Wildlife with the basis for changing the cSAC condition assessment for the Nore Pearl Mussel from unfavourable to recovering*”.

However, the An Bord Pleanála inspector’s report concludes that as he has “*made negative conclusions in relation to junctions and consideration of alternatives, detailed comments on proposed mitigation measures are not given in this report.*”

While the decision of the Board sets out mitigation measures for the pearl mussel, it is not specifically mentioned that the development will not have a significant adverse affects on the protected Habitat of the Nore Pearl Mussel (*Margaritifera durrovensis*) or of the several other Habitats Directive protected aquatic species (lamprey, crayfish, and salmon), to which much less attention was given in the Oral hearing. No evidence has been found by the author of suitable assessment by ABP of the detail or adequacy of the ecological information provided, or of sufficient assessment of the effectiveness of mitigation measures proposed for these species was carried out.

3) Other Biodiversity Impacts of the Scheme

Other protected species and habitats that are likely to be impacted by the scheme include:

- 11.5km of hedgerows, which are ecological corridors and as such are protected under the habitats directive, will be removed by the scheme. 1.75km of hedges to be removed are described as ‘high value hedges’. and for which some mitigation measures are proposed
- Four species of Bats were found in the vicinity of the scheme and these are likely to be impacted by habitat loss and habitat fragmentation from the scheme. All bats are afforded protection under the Habitats Directive
- Nineteen sites of local ecological value are likely to be impacted by the scheme, including one which will suffer ‘major negative impacts’ and ten that will suffer ‘moderate negative impacts’ according to the Environmental Impact Statement. These include Coolacurragh (Natural Heritage Area) and Coolnamona wet woodlands (wet woodland is a protected habitat under the Habitats Directive)
- Cuffsborough proposed Natuaral Heritage Area lies 100m east of the development and contains Greenland White Fronted Geese
- Kilnaseer Fen is part of a Special Area of Conservation and contains a rich fen ecosystem and species protected under the Habitats Directive. The fen is dependant on local hydrology and would be severely impacted if drainage alterations were to occur. Mitigation measures are to be implemented to avoid such impacts.
- Otters are protected under the Habitats Directive and will be impacted by habitat loss and culverting streams along the route

Whilst the decision of the Board has been to grant consent for this scheme, the adequacy of proposed mitigation procedures for the full range of biodiversity impacts from this scheme do not appear to have been assessed by suitably qualified and independent experts.

Case Study 3: N3 Butlers Bridge to Belturbet Road Improvement Scheme

Introduction

N3 Butlers Bridge to Belturbet Road Improvement Scheme comprises the construction of approximately 6.7km of single carriageway road to replace the existing N3 for this stretch. The need for this road improvement scheme was based on safety grounds and was included in the National Development Plan and Cavan County Development Plan 2003-2009.

The road crosses Lough Oughter SAC / Natura 2000 European site in seven different locations and removes 4.26ha of habitat. This Natura 2000 site contains two Annex 1 priority habitats as listed in the Habitats Directive. These are habitats which are considered to be endangered, and are thus of particular conservation importance and which Ireland has a special responsibility to protect under the Habitats Directive.

The EIS was completed in March 2005, the application was lodged to An Bord Pleanála on 21st May 2005, and the oral hearing began in September 2005. The file is currently with An Bord Pleanála and no decision has yet been made.

Environmental Impact Statement

The Environmental Impact Statement refers to this site as a 'candidate' Special Area of Conservation, whereas this site is no longer a 'candidate' Special Area of Conservation as it was adopted by the European Commission as a 'site of Community importance for the Atlantic biogeographical region' on 7th December 2004, site code 'IE0000007 Lough Oughter and Associated Loughs *' (where * indicates priority habitat) is not noted in the Environmental Impact Statement.

1) Consideration of alternative route options

The impacts on the Bog woodland priority Habitat and Special Area of Conservation, which this road runs directly through, were not taken in to account in the consideration of alternatives (section 3.6.3 of the EIS).

2) Potential Biodiversity Impacts as outlined in the Non Technical Summary:

According to the Flora and Fauna subsection of the Non-Technical Summary, *“there will be direct impacts on the cSAC as approximately 1.4km of the proposed route covers the cSAC and crosses the cSAC at 7 seven different locations. A total of 4.26ha of habitats will be removed.”* It goes on to state that *“the integrity of the cSAC will be maintained as the qualifying interest for the cSAC designation, (the presence of two Annex I habitats), are not adversely impacted.”*

Despite the removal of 4.26ha of habitats from a Natura 2000 (Special Area of Conservation) site, the EIS goes on to state that their will be *“no direct impacts on the*

cSAC priority habitat, bog woodland. The construction of the piers and embankments supporting the bridge will be finalised at the detailed design and build stage, but it's envisaged that there will be no indirect impact on this wetland complex. The construction working area will be fenced off and kept to a minimum."

The appropriateness of fencing off the construction area within such a habitat is questionable.

3) Proposed Mitigation Measures:

The adequacy of mitigation proposed if the piers to support the bridge pierce the clay substrata (which maintains the wet nature of this priority habitat) is also questionable. It is proposed that if, during construction, the clay substrata are pierced, they will be sealed around the pier.

"Ecological compensatory planting and natural rejuvenation areas are proposed throughout the Scheme to compensate for the landtake of habitat area. With these mitigation measures proposed the area acquired for habitat restoration will be approximately 15.6ha. Provided mitigation measures are implemented, mammals will re-establish their territories. No permanent indirect impacts on the hydrology of the lakes are envisaged, therefore there will be no permanent adverse impacts on the overall integrity of the cSAC."

4) Consultations:

It appears that National Parks and Wildlife Service (NPWS) initially failed to respond to consultations on the scheme. The Environmental Impact Statement describes the consultations as follows: *"The NPWS of the Department of Environment Heritage and Local Government were consulted on numerous occasions in relation to the potential impacts of the scheme traversing a cSAC area. The NPWS was consulted in relation to records of rare plants in the vicinity of the proposed route."*

Under 17.3.7, Fauna, the likelihood of the occurrence of Bats has been discussed. This includes how *"the habitat in the vicinity of the scheme includes a network of water bodies, wetlands and scrub/woodland, which provide good feeding and roosting habitat for bats"*

"Although no specific survey was carried out to determine the presence of bat roosting sites or feeding grounds along the proposed route, it is possible that seven of the nine species of bat currently known to occur in Ireland may occur in the vicinity of the proposed route." All of Ireland's bat species are protected under the Habitats Directive (92/43/EEC), although this is not mentioned in the section on bats in the Environmental Impact Statement. The EIS then goes on to state that *"full bat survey will be required prior to construction to determine potential roost sights and flight paths to foraging areas."*

Subsequent to the completion of the EIS, The Department of Environment, Heritage, and Local Government in their written submission to An Bord Pleanála (Annex BX3) note that *“the proposed road would cross a wetland complex which contains the priority habitat type Bog Woodland, which is afforded protection under Annex of the EU Habitats Directive”*. They point out their concern *“that the water supply to the above habitat may be compromised through lack of knowledge and understanding of primarily, ground water movements and secondly, surface water movements”*

Vital information regarding the hydrological regime of the area, upon which the priority habitat wet woodland is dependant, has been ongoing since completion of the Environmental Impact Statement.

The scale and adequacy of assessments by An Bord Pleanála on the potentially major impacts on a priority habitat and upon several protected species if this scheme is to proceed are yet to be seen.

The recent decision by An Bord Pleanála to approve the proposed road states that the road *“will not adversely effect the integrity of the Lough Oughter and Associated lakes candidate Special Area of Conservation”*. It also goes on to call for safety considerations in the *“excavation of any significant area of peat”* from reasons of preventing pollution of hazard from such excavation or removal of peat.

Despite the specific requirement in the EIA Directive (97/11/EC) to *“adopt all measures necessary to ensure that, before consent is given, projects likely to have significant effects on the environment...are made subject to a requirement for development consent and an assessment with regard to their effects”* the full suite of mitigation measures are yet to be agreed. The An Bord Pleanála Decision requires that *“the local authority shall consult with National Parks and Wildlife Service of the Department of Environment, Heritage, and Local Government in relation to any mitigation measures required to protect the ‘Bog Woodland’ Priority Habitat (Annex 1 of the European Directive 92/43/EEC) at Aghnaguig Bog. Mitigation measures as required by the National Parks and Wildlife Service shall be implemented as part of the proposed road development”*

The ‘Reason’ quoted for this is *“In order to ensure that the proposed road development will not have any significant adverse effects on the Aghnaguig Bog area of high ecological significance”*. It is difficult to establish how the removal of 4.26ha of priority habitat will be carried out without having any ‘significant effect’ on the habitat.