Specialist Report

R322329_App 2

Development	Ballina Flood Relief Scheme- River Moy
Type of Application	Local Authority Application
Topic	Adequateness of information for purpose of Appropriate Assessment and Environmental Impact Assessment: Aquatic and Terrestrial Biodiversity
Ecologist	Maeve Flynn BSc. PhD. MCIEEM
Senior Planning Inspector	Fiona Fair

Contents

1.0 Introduction

1.1. Scope of Report to Inspector

1.1.1. Mayo County Council in partnership with the Office of Public Works (OPW) is seeking approval to undertake flood relief works along and/or adjacent to and/or in the vicinity of the River Moy, and the following tributaries: Quignamanger Stream, Bunree Stream, Brusna River, and the Tullyegan Stream. Works proposed include the construction of new flood walls, repairs to quay walls, culverts, embankments, cutting, pruning and bankside maintenance and other works within the River Moy SAC (002298) and the Killala Bay/Moy Estuary SAC (000458) and SPA (004228).

1.1.2. Due to the nature of the works within European Sites, the Planning Inspector requested input from the Ecology and Environment team in a memo dated 05/08/2025.

1.1.3. This report to the Planning Inspector and available to the Commission is a written record of my review and examination of the information provided by Mayo County Council as prepared by RPS related to aquatic and terrestrial Biodiversity and the requirements for Appropriate Assessment.

1.1.4. In my capacity of Inspectorate Ecologist with over 20 years professional experience, I have the relevant expertise to provide a professional opinion as to the adequacy of the information for the Planning Inspector and for the Commission to undertake Appropriate Assessment (AA) and Environmental Impact Assessment (EIA) for the proposed Ballina Flood Relief Scheme.

1.1.5. This report does not comprise a detailed assessment, rather an overview of the adequateness and quality of reports to inform the EIA and AA in view of the Planning Inspectors request.

1.1.6. I have reviewed and examined the following documents including relevant appendices and figures:

- Natura Impact Statement (NIS)
- EIAR: Chapter 9 Aquatic Biodiversity, Chapter 10 Terrestrial Ecology and associated appendices
- Construction and Environmental Management Plan (CEMP)

1.1.7. The documents have been reviewed with respect to the following current best practice guidance:

- CIEEM (2019) Ecological Impact Assessment Checklist (as relevant to Irish legislation -see Appendix II).
- EC (2018) Managing Natura 2000 sites. The provisions of Article 6 of the Habitats Directive 92/43/EEC
- EC (2021) Assessment of plans and projects in relation to Natura 2000 sites. Methodological guidance on Article 6(3) and 6(4) of the Habitats Directive 92/43/EC
- EPA (2023) Guidelines on the information to be contained in environmental impact assessment reports.

2.0 General approach and technical content in relation to Biodiversity and the Natura Impact Statement

2.1. Expertise and technical content

2.1.1. The biodiversity chapters of the EIAR and the NIS were prepared by suitably qualified and experienced Ecologists from RPS with support from freshwater ecologist Lauren Williams (Ecology Ireland Wildlife Consultants) for Aquatic Ecology. A statement of competence for each lead ecologist has been provided (Table 1.3 EIAR). I am satisfied that the scope, structure and content of the EIAR and NIS has been prepared in accordance with the current best practice guidance referred to.

2.1.2. Based on my review, I am satisfied that the scientific information on surveys, nature conservation sites, aquatic habitats and species, terrestrial habitats and species is adequate and up to date (over various dates between 2020- 2023, EIAR summary Tables 9.1, 10.2) to inform a robust baseline for both the EIA and AA. The scientific information included desk survey, habitat survey, aquatic survey and taxon specific surveys (table 1 below) and all protected species (including all qualifying interest species) likely to be significantly affected are clearly and correctly identified. Details of individual surveys and approaches are presented in appendices of the relevant chapters.

Table 1: Summary of ecological surveys that informed the EIAR and NIS.

Aquatic Biodiversity	**Terrestrial Biodiversity**
Fisheries habitat assessment	Habitat (phase 1 Fossitt, 2000)
Instream plant community (floating river vegetation: Annex I Habitat 3260: Water courses of plain to montane levels with the *Ranunculion fluitantis* and *Callitricho-Batrachion* vegetation	Breeding birds
Juvenile lamprey presence/ absence sampling	Wintering birds
White clawed crayfish presence/ absence sampling	Invasive alien species
Q value sample and analysis	Protected mammals (otter and badger)
Water chemistry sample and analysis	Bats

2.1.4. I am satisfied that the ecological surveys were undertaken in line with published good practice methods and at the optimum seasonal period providing a robust baseline for the impact assessment as part of the EIA and AA. Survey and data limitations are clearly presented (EIAR 9.2.6 and 10.2.6).

2.1.5. It is evident that significant consultation and interaction with the National Parks and Wildlife Service (NPWS) and Inland Fisheries Ireland (IFI) has informed the approach taken in the EIAR and NIS in relation to surveys undertaken, impact assessment and in the design of mitigation measures and monitoring.

3.0 Aquatic Biodiversity

3.1. Baseline

3.1.1. The proposed flood relief scheme involves works in the Ballina section of the River Moy and upper River Moy Estuary, and four separate tributaries of the River Moy in the vicinity of Ballina: namely the Tullyegan Stream, Quignamanger Stream, Bunree Stream and the Brusna / Glenree River. The River Moy and its wider catchment is

one of the most important salmon catchments in Ireland reflected in its designation as a Salmonid Water under the Salmonid Regulation and as SAC designated for Atlantic Salmon among other aquatic qualifying interest features including Sea and Brook lamprey, and white-clawed crayfish. Chapter 9 Aquatic Ecology details the existing environment in a comprehensive manner, taking account of the sensitivities of the stretches of watercourses impacted by the proposed scheme including the hydromorphological conditions. Other aquatic species including trout and European eel are considered and habitats including floating river vegetation and tufa springs. Table 9.13 provides a summary of aquatic receptors in view of their ecological significance, with the main river of the River Moy and the Brusna/Glenree watercourses identified as being of international importance.

3.2. Significant effects and mitigation

3.2.1. The sources of construction phase effects including, impact mechanisms of increased suspended solids, cement, hydrocarbons, temporary hydromorphological effects, habitat disturbance and invasive alien species are considered for each watercourse receptor. Sources of operational phase effects primarily relate to hydromorphological impacts which refer to the physical structure of surface water habitats which influence the ecosystems that support biological quality elements and water body status. The likely significance of potential effects in the absence of mitigation is determined for each water course (stretch of) affected. In the absence of mitigation measures significant negative effects are considered likely for a number of locations, species and habitats for the construction and operational phase (see Table 9-15 and 9.16 for summary).

3.2.2. Chapter 9 clearly identifies and describes mitigation measures designed to address all likely significant effects and the likely effectiveness of these measures. A comprehensive suite of mitigation measures is proposed to prevent contamination of surface waters and protect critical life-cycle periods for fish species and their habitats during the construction phase. Operational phase mitigation includes for ensuring fish passage and preserving fish habitats.

3.2.3. A surface water monitoring plan is included in the EIAR and in the CEMP. A key measure in the provision of mitigation for the scheme is the appointment of an

Ecological Clerk of Works oversee the implementation of pollution mitigation measures, compliance with environmental planning conditions, monitoring and reporting on environmental aspects of the development, and liaison with third parties and the Planning Authority

3.3. Residual effects

3.3.1. Based on my review of Chapter 9 Aquatic Biodiversity, which I consider to be of high quality based on the best available scientific information and prepared in line with best practice, I concur with the findings that with the implementation of prescribed mitigation measures the effects on aquatic biodiversity will be temporary-to-short term, slight, negative, reversible effects, related to discrete areas of instream disturbance in the construction phase, with the operational effects being neutral to not significant.

4.0 Terrestrial Ecology

4.1. Baseline

4.1.1. Chapter 10 of the EIAR presents an assessment of the likely significant effects of the proposed scheme on habitats and protected species and designated sites for nature conservation. The Chapter has been prepared with regard to relevant nature conservation legislation, policy and guidance. Informed by desk survey and multidisciplinary field surveys individual taxon surveys the ecological baseline is described in detail in relation to designated sites for nature conservation including national sites (pNHA and NHA sites) European sites, habitats and flora, protected mammals with particular focus on otter (Annex II and IV species) and badger. Other animal groups considered included bats, birds, terrestrial invertebrates, marine mammals (Harbour seal) and invasive species. Table 10-17 provides a summary of important ecological features considered in the detailed assessment for significant effects.

4.2. Significant effects and mitigation

4.2.1. The characteristics of the proposed scheme likely to result in significant effects are identified in terms of construction and operational related impacts and effects including habitat loss, degradation and or fragmentation, disturbance / displacement, pollution to water and air, accidental killing/ injury of vulnerable species and spread of invasive

species. Sources of operational phase effects also include potential habitat severance/ barrier effect (for otter). Instream and bankside construction has the greatest potential for negative impacts in terms if impacts on water quality and habitat disturbance/ loss. The likely significance of potential effects in the absence of mitigation is determined for important ecological factor. In the absence of mitigation measures significant negative effects are considered likely for a number of species and habitats for the construction and operational phase (see Table 10-34 and 10.35 for summary). Of significance is the potential for adverse effects on Otter (Annex II and IV species, QI of the River Moy SAC). Otter couches (resting places) will be disrupted along the banks of the River Moy to facilitate works and an Otter hold will be affected along the River Brusna. I note a derogation under Regulation 54 of the EC (Birds and Natural Habitats) Regulations 2011-2021 has been applied for and granted by the NPWS pertaining to disturbance of Otter.

4.2.2. Mitigation measures are detailed in section 10.5 and includes general mitigation measures and specific measures for identified important ecological factors. General mitigation for the construction phase includes for provisions of environmental manger, ecological clerk of works, pre-construction surveys (standard for mobile species and to account for potential changes in baseline), water protection measures, invasive species management, and timing of works. Specific measures relate to bats, breeding birds, habitats including floating river vegetation, wet grassland and tall herb swamp, badger and otter (derogation licence) and landscape planting. A wide range of mitigation measures that apply to other aspects of the scheme are also of relevance to the protection of water quality. A number of biodiversity enhancement measures have also been included such as installation of bat boxes

4.2.3. Motoring measures are specified (EIAR 10.7) and include duties that will be incorporated into the CEMP and manged by the Ecological and Environmental Clerks of works including watching brief during site clearance and invasive species management.

4.3. Residual effects

4.3.1. Based on my review of Chapter 10 Terrestrial Biodiversity, which I consider is based on the best available scientific information and prepared in line with best practice, I concur with the findings that with the implementation of mitigation measures long-term

significant impacts on the species and habitats of conservation interest will be prevented. The residual effects are not anticipated to be significant for species or habitats of conservation interest for the construction or operational phases.

5.0 Implications for European Sites

5.1. Natura Impact Statement Review

5.1.1. My review of the NIS does not comprise the AA Screening or AA but is aimed at providing the Planning Inspector and the Commission a professional opinion as to the adequacy of the information provide in order to meeting the tests for Appropriate Assessment (AA) and come to clear, precise and definitive findings with regard to implications for the integrity of European Sites affected in view of their conservation objectives.

5.1.2. The NIS is presented as a standalone document with a detailed description of all aspects of the proposed scheme. The proposed scheme elements are described in detail and the construction phase and inherent construction management measures clearly described. As described earlier in my report, the methodology applied and surveys employed to characterize and describe the baseline environment very comprehensive and is in line with best practice.

5.2. European Sites considered in the NIS

5.2.1. In screening the proposed development for likely significant effects, it was determined that in the absence of mitigation measures the Proposed Scheme works have the potential to result in likely significant effects on European Site (alone). The sites included in the NIS and detailed assessment as part of stage 2 AA are:

- River Moy SAC,
- Killala Bay/Moy Estuary SAC,
- Killala Bay/Moy Estuary SPA and
- Lough Conn and Lough Cullin SPA.

5.2.2. The Appropriate Assessment screening for the Proposed Scheme concluded that the construction and/or operational and maintenance phases of the Proposed Scheme has the potential to affect these sites via hydrological, hydrogeological, direct

disturbance or indirect disturbance pathways on qualifying interest (QI) or Special Conservation Interest (SCI) species. The Screening stage identified the QI habitats and species at risk for each site and the NIS is focused on these QI features with likely significant effects excluded for all other QI. A summary of stage 1 screening is provided in NIS section 6.2.

5.3. Adverse effects and mitigation

5.3.1. Impact prediction is based on the source- pathway-receptor model. Detailed impact predictions for construction phase and operational phase are presented for each QI feature and a very detailed and comprehensive in combination impact assessment is presented in NIS section 6.5.

5.3.2. I am satisfied that the implications of the proposed development have been assessed against the site-specific conservation objectives, attributes and targets of the qualifying features based on the best scientific knowledge in the field gathered in field survey over the course of multiple surveys and from existing data sets.

5.3.3. Clear mitigation measures are detailed for each likely significant impact, including detail on how the measure will reduce the impact to a non- significant level or avoid the impact altogether, how will the measure be implemented and by whom, timescale of implementation, monitoring, degree of confidence in the likely success of the measures.

5.3.4. I bring the planning inspector and the Commissions attention to section 9 of the NIS which provides a very comprehensive summary of residual effects in relation to site specific conservation objectives targets and attributes for the QI species and habitats of the European Sites. This section is very clear and precise and sets out the parameters that are required to come to definitive findings in relation to adverse effects. Where conservation objectives are not undermined, adverse effects on site integrity can be excluded.

6.0 Conclusion

6.1. Biodiversity

6.1.1. It is my professional opinion that EIAR Chapters 9 and 10, Aquatic Biodiversity and Terrestrial Biodiversity provide a comprehensive assessment of likely significant

effects of the proposed Ballina Flood Relief Scheme on sensitive ecological receptors. The consideration of significant effects and mitigation is based on application of the mitigation hierarchy, focused on avoidance, reduction and remediation impacts. A detailed programme of mitigation measures has been developed which is integrated into the CEMP ensuring ease of transfer of these measures to the next phase of the development if permitted. I concur with the findings that with the implementation of mitigation measures long-term significant impacts on the species and habitats of conservation interest will be prevented.

6.2. European Sites and AA

6.2.1. It is my professional opinion that the Natura Impact Statement provides a comprehensive assessment of the implications of the proposed Ballina Flood Relief Scheme in view of the conservation objectives of the following European Sites:

- River Moy SAC
- Killala Bay/Moy Estuary SAC
- Killala Bay/Moy Estuary SPA
- Lough Conn and Lough Cullin SPA

The assessment presented in the NIS is based on the best scientific information available and detailed mitigation and monitoring is prescribed to exclude adverse effects on qualifying interest species and habitats in view of site-specific conservation objectives. I consider that the information in the NIS is such that it should allow An Coimisiún Pleanála to reach clear, precise and definitive findings for the purpose of Appropriate Assessment.

Signed 

Maeve Flynn

Senior Ecologist (Inspectorate)

12/09/2025