Inspector's Report
ABP-322329-25

Development	Ballina Flood Relief Scheme - River Moy
Location	River Moy, County Mayo
Local Authority	Mayo County Council
Type of Application	Application for approval made under Section 175 and Section 177(AE) of the Planning and Development Act, 2000 (Local Authority development requiring EIAR and AA, respectively.)
Prescribed Bodies	1. An Taisce 2. TII 3. Uisce Eireann
Observer(s)	4. Moyvale Residents
Date of Site Inspection	26th & 27th August 2025
Inspector	Fiona Fair

Contents

1.0 Introduction

Mayo County Council is seeking approval from An Bord Pleanála 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 wall, culverts, embankments, cutting, pruning and bankside maintenance and other works within the River Moy SAC (002298), the Killala Bay/Moy Estuary SAC (000458) and Killala Bay/Moy Estuary SPA (004036) and adjacent to Lough Conn and Lough Cullin SPA (004228).

The application is being made by Mayo County Council pursuant to Section 175 (3) and Section 177AE of the Planning and Development Act, 2000 (as amended). Accordingly, an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) have been prepared in respect of the proposed development.

I note that this application is accompanied with a CPO Order and case file ACP-323060-25, (lodged with ACP on the 16/07/2025).

Before making a decision on the proposed development, the Board shall consider the EIAR, any submissions or observations and any other information relating to (i) the likely effects on the environment of the proposed development, and (ii) the likely consequences for proper planning and sustainable development in the area in which it is proposed to situate the proposed development. The Board shall also consider the NIS and the likely effects on a European site/s in respect of Appropriate Assessment.

2.0 Proposed Development

A summary of the Proposed Scheme is provided in Table 1 with a description of the works to be carried out described in the sections that follow.

Table 1

Watercourse	Location	Description of Works
River Moy	Pedestrian Bridge to Salmon Weir	New flood walls
	Barrett Street	Proposed storm water pumping station
	Ridgepool	New flood walls Tanking of the Weir Building Additional access to the river Repairs to quay wall as necessary Proposed storm water pumping station.
	Cathedral Road	Raised plaza to act as flood defence incorporating public realm elements.
	Emmet Street	Removal and reconstruction of existing wall using original stone Replace existing railings with combination of new flood wall and glass wall.
	Clare Street/Howley Terrace	New flood walls Accessible access at existing angling area Proposed storm water pumping station
	Bachelors Walk	New flood walls

		Proposed storm water pumping station
	General	Tree removal, cutting, pruning and bankside maintenance.
Quignamanger Stream	Existing diversion culvert	New culvert
	Existing open reach	New flood walls Lowering of existing left bank wall Baffle/ stepped pool at D/S reach of drainage channel
	Outfall to River Moy	New culvert crossing of Quay Road and replacement of downstream culvert with open channel.
	General	Tree removal, cutting, pruning and bankside maintenance,
Bunree Stream	Existing culverts and open reaches along Behy Road from Behy Business Park to N59.	New culvert
	Existing culvert downstream of N59 - public open space	Replace existing culvert with open channel. Regrade channel bank where possible to achieve a stepped/more gentle slope
	Field bridge	New culvert

	General	Tree removal, cutting, pruning and bankside maintenance.
Brusna River	Rathkip/ Shanaghy Area	Flood walls and embankments
	Bridge Crossing	Beam to act as flood defence. Replacement of scour protection including bank retaining walls as required.
	General	Tree removal, cutting, pruning and bankside maintenance.
Tullyegan Stream	Between N26 and railway Crossing	Flood walls and embankment
	General	Tree removal, cutting, pruning and bankside maintenance.

Note: The National Parks and Wildlife Service (NPWS) have issued a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 allowing for disturbance and actions authorised within the derogation in respect of otters at Clare Street & Abbeyhalfquarter (Derogation No. DER-OTTER-2025-09). The actions which this derogation authorise shall be completed between the 28th March – 31st December 2025, inclusive. It is anticipated that another derogation will be necessary to allow for the proposed works to be undertaken at a later date.

River Moy

The proposed works on the right-bank of (looking downstream) the River Moy (Figure 6-1) include flood walls of up to 1.25m height along the left and right banks of the river. This is an increase of up 0.5m on the existing walls. The new walls (replacing the existing walls) will start upstream of the Salmon Weir, at the pedestrian bridge and finish at Clare Street at Tom Ruane Park. Where required flood defence heights are lower along the section of Ridgepool Road opposite the

Inland Fisheries Ireland (IFI) Building, a lower height (700mm approximately) wall will be constructed with a railing placed above the wall.

The existing Weir Building on Ridgepool Road will form part of the flood defence measures and will be waterproofed as necessary. Public access to the religious grotto on Clare Street will also be maintained by placing the wall behind the structure.

Flood defences on the left-bank of the river will begin at the existing flood defence at the Ballina Arts Centre and end at the old Ballina Dairies site north of Bachelors Walk. New walls will be constructed to replace existing walls where required. Glass walling in combination with flood walling will be used in front of the

Ballina Manor Hotel/ apartments and the IFI Building to maintain views from affected properties. At Emmet Street the existing railings will be replaced with a combination of new flood walls and glass walls. In the location of existing historic steps, 900mm glass walls will be installed. The existing walls on Emmet Street will be carefully dismantled and reconstructed due to their historical significance. The proposed works on the left-bank of the river (looking downstream) on the River Moy include flood walls of up to 1.3 m height along the left banks of the river. This is an increase of up 0.6m on the existing walls.

Along the left bank of the River Moy adjacent to the Salmon Weir and the Ballina Arts Centre, realignment of the temporary groyne, as agreed with IFI, is proposed as a fisheries enhancement measure. Biodiversity enhancement will be provided along the River Moy in the form of bird boxes and bat boxes.

The pavement along these sections will be removed and replaced to accommodate the foundation of the new walls and drainage. The route of the flood walls will generally follow the line of existing walls and will tie into existing walls, bridges and/or high ground. The existing walls will therefore need to be removed to allow new flood walls to be constructed. This will be required along the banks of Ridgepool Road, Cathedral Road, Clare Street and Bachelors Walk.

Mayo County Council (MCC) is in the process of developing a Public Realm Scheme for the town of Ballina. The Proposed Scheme provides for a new public open space area on Cathedral Road which will be incorporated into the broader Ballina Public

Realm in the future. Further details regarding the public open space area are provided in Chapter 19: Landscape & Visual. Existing angling access points along the right bank will be maintained post construction. An additional angling access point will be provided immediately downstream of the Weir Building. A wheelchair accessible angling access point will be provided on Clare Street.

Quignamanger Stream

The Quignamanger is a small watercourse with numerous culverted sections with a maximum diameter of 0.7m. It also has an existing diversion culvert operating in the lower reach before discharging into the Moy via a culvert under Quay Road. The proposed works involve the replacement of this existing 0.9 m piped diameter diversion culvert with a larger 1.5 m diameter piped culvert for part of the upstream section and a 2 m wide by 1 m deep box culvert along the downstream section to minimise the amount of regrading required in the stream. The existing flap valve at the point where the culvert discharges back into the river channel, just before intersection of Creggs and Quay Roads will also be removed.

Flood walls will be installed along the open reach of the channel upstream of Quay Road. The open reach has been planned to allow for the protection of sensitive habitat located in this area. Where the lower reach of the Quignamanger channel upstream of the existing Quay Road culvert is to be regraded to meet the new enlarged Quay Road culvert, rather than leaving a uniformly sloping channel, the design shall include a series of fixed rock or concrete baffles or step-pools (ensuring a low- flow notch) using natural rock and cobble to create turbulent flow. The flood walls will have a maximum height of 1.1 m. The culvert under Quay Road which conveys water to the River Moy will also be upgraded to a 2 x 1 m box culvert. The existing culvert downstream of Quay road will be removed to allow for an open channel discharge to the River Moy.

Bunree / Behy Road Stream

The Bunree is a small watercourse with numerous culverts of various shapes and sizes. Many of these culverts are undersized and constrict the flow so that out of bank flooding occurs upstream of the inlets. Out of bank flooding therefore occurs in numerous locations along Behy Road.

The proposed works include the installation of a new culvert which would replace the existing culvert and the existing sections of open channel. The culvert will follow the existing stream channel. A 1.5 m diameter piped culvert will be installed at the upstream section of the works to upgrade an existing field culvert access. A new 1.5 m culvert will be installed from Behy Business Park to the Knocknalyre housing estate. Downstream of this, the culvert will increase to a 1.8 m diameter culvert. The culvert will further increase to a 2m x 1.25m culvert where it crosses the N59. Local road raising will be required at the crossing. A culverted section downstream of the N59 at Moyvale Park, which causes a constriction to flood flows, will be removed and the open channel reinstated. Localised regrading will be required to ensure stream invert levels are maintained. The banks of this open channel will be regraded to form a gentle/ stepped slope.

Brusna (Glenree) River

The Brusna (Glenree) is a medium sized river. A section of the river, in the Rathkip/Shanaghy area, shows a potential flood risk to properties and infrastructure. The road bridge, the only access to and from Rathkip/Shanaghy area, also constricts the flow creating higher than normal water levels upstream of the bridge.

The proposed works on the Brusna (Glenree) River include hard defences consisting of flood walls and embankments. Flood walls and embankments are required on both sides of the river upstream of the access bridge. Flood walls and embankments are required on the right hand bank of the river downstream of the bridge. The maximum height of flood walls and embankment is approximately 1.7 m. There are no existing walls in most of the locations where flood walls are proposed, with it consisting mostly of fences or hedgerows. Flood walls and embankments have been set back from the river to minimise the removal of trees and protect the riparian zone. Two otter holts are proposed to be constructed downstream of the bridge crossing on the left bank. Embankments will allow for access/habitat for wildlife. Bat and bird boxes are being provided to enhance biodiversity.

The design flood levels are higher than the deck level of the bridge to the Rathkip/Shanaghy area, therefore a reinforced concrete beam spanning the river on the upstream side of the bridge is required to prevent overtopping and remove any additional loading to the bridge. The beam will be connected to the upstream side of

the bridge. The beam will be installed using a crane located on the southern left bank of the river. The beam will be supported on 2 proposed reinforced concrete piers. The piers will tie into the proposed flood walls on either side of the bridge. The existing railing will be reinstalled along the proposed beam to ensure fall protection height is provided. Construction of the beam will not block access across the bridge and access to the houses on the other side of the river will be maintained.

Tullyegan Stream

The Tullyegan is a small, mainly open watercourse located at the southern end of Ballina. Hydraulic modelling showed that during the 1 % AEP flood event out of bank flooding occurs. This is due to a downstream constriction at the N26 road bridge resulting in flows backing up increasing water levels upstream.

Flood walls on the north bank are to be constructed to the same height as the existing walls which range from 1.4 to 2.96m. The embankment on the north bank has a maximum height of 1.5m. Flood walls on the southern bank of the stream have a maximum height of 1m. Some of the right bank/southern wall will be set back from the riverbank in order to prevent the removal of trees which line the riverbank. An embankment will be installed on the left bank where the flood defence ties in with the Iarnród Éireann/Irish Rail embankment. The embankment is proposed to facilitate the movement of otters, as suitable habitat was identified at this location.

New gated construction and emergency access points will be provided from the N26 and L1122 roads.

The majority of flood walls will consist of reinforced concrete with a suitable foundation, stone cladding along the face and of varying height

Embankments are proposed on the River Brusna and on the Tullyegan Stream.

Embankments will be constructed of impermeable clay with a capping of topsoil of approximately 150 mm depth to allow for landscaping.

Public Open Space / Amenity

The plaza opposite Muredach's Cathedral along Cathedral Road will be modified for incorporation into the future planned Ballina Public Realm. This will involve the development of a raised platform to a height of approximately 0.8 m. Existing

pedestrian access to the river will be maintained, including provision for accessible access.

Access to the River Moy for recreational activities and anglers along the Proposed Scheme is to be maintained. All existing access points are being maintained with access to be improved where practical. Such access points to the River Moy will be maintained through ramps, stiles or flood gates. Existing public lighting will be replaced where removed.

Construction Compounds

Temporary construction compounds will include site offices, welfare facilities, bunded fuel storage areas, designated storage area and construction parking. Wastewater will connect to foul sewer networks where available. Where not available, the contractor will have to provide welfare facilities in accordance with best practice.

The locations of potential temporary compounds are listed below:

- Ballina Dairies site and adjacent boat club site.
- MCC lands on Barrett Street.
- Sites located on private lands:
  - Ridgepool Road.
  - Behy Road.
  - Bonniconlon Road.

Accompanying documents

This application for approval is accompanied by the following documents:

- NIS
- EIAR
- EIAR Non-Technical Summary
- Appendices incl, inter alia, Bat surveys, Bird Surveys, Invasive Species Plan, Invasive alien plant species Drawings, Otter Holt Design, Mitigation Planting, Ecological surveys, Habitat Mapping, Otter Surveys / Signs Mapping, Land soil, geology drawings, WFD Compliance report, noise calibrations certs,

Mayo CDP Heritage Objectives, Underwater Archaeology Impact Assessment, Mitigation planting, Ridgepool Road Public Realm Design, Cathedral Road Raised Promenade, Photomontages, Architectural Conservation report, Cumulative Project and Plans Assessment, Stakeholder Consultation Traffic Survey Date, CTMP, Junction Modelling Aquatic survey site maps.

- Construction Environmental Management Plan (CEMP)

3.0 Site and Location

Ballina Town is the second-largest town in County Mayo with a population of 10,409. It lies at the mouth of the River Moy near Killala Bay in the north of the county. It is designated Key Town (Tier 1) as per the Mayo County Development Plan (MCDP) 2022-2028 and functions as the main economic driver for a large area of north Mayo. Due to its proximity to County Sligo, the town also serves as the main economic, commercial, social and educational centre for parts of west Sligo. This makes Ballina an important asset to the wider region, alongside its historical, ecological and archaeological significance, and tourism potential.

The River Moy rises in Sligo's Ox Mountains and is roughly 100 km long. For the greater part of its length, it flows south-westward, entering County Mayo and flowing near Swinford before passing through Foxford then turning north near the village of Kilmore and heading for Ballina Town, where it enters the Atlantic Ocean at Killala Bay along the Mayo-Sligo border.

Almost the entire freshwater element of the River Moy is a designated Special Area of Conservation (SAC), along with its tributary the Brusna River which also forms part of the Proposed Scheme. The River Moy SAC (Site Code: 002298) contains habitats and species listed in Annexes I and II of the EU Habitats Directive.

The River Moy is known for its exceptional salmon fishery.

There are two Architectural Conservation Areas (ACAs) within the Scheme Area as follows:

- Crocketstown ACA which includes the Ballina Quay, and

- Pearse Street ACA located closer to the centre of town which includes the historic commercial core of the town centre and features several historic laneways that run down to Emmet Street and the River Moy.

Of note are the bridges, Salmon Weir on the River Moy and the adjacent Ardnaree Abbey, located along Cathedral Road.

The Lower Bridge (originally New Bridge) is a four-arch road over river bridge built 1833-35 spanning the River Moy. The Upper Bridge (originally Arran Bridge) is a five-arch road over river bridge built 1835-36, spanning the River Moy at the southern end of Ballina town environs. Further south, the Salmon Weir which is recorded by Lewis c. 1837 as extant (and rebuilt) is an important element of the built heritage fabric of Ballina. It has been recently subject to improvement/restoration works in 2010/11.

Sections of reaches along the River Moy are heavily modified. The Salmon Weir footbridge, Salmon Weir, Upper Bridge and Lower Bridge all span the entire width of the river in Ballina town and thus influence the flow regime within the river channel. The Salmon Weir pedestrian bridge is supported by a single pier in the centre of the channel, while the Salmon Weir itself spans 9 piers in total. There are also several bridges and structures to support road and rail routes across the tributaries to the River Moy.

The tributaries which form part of the Proposed Scheme are also heavily modified with culverts, except for the Brusna River. The Quignamanger Stream additionally has an existing diversion culvert operating in the lower reach before discharging into the Moy via a culvert under Quay Road. The Bunree Stream conveys flow via numerous culverts. The Tullyegan Stream incorporates several short culverts.

4.0 Planning History

Table 2: Sets out Planning Applications within the Redline Boundary or within 10m of the Redline Boundary, dating over the past 10 years.

Application Ref.	**Development Description**	**Decision (Final Grant)**
2360176	Construct a rear and side single storey extension to an existing creche facility and to carry out all ancillary site works at Hunt Montessori School, Foxford Road, Behybaun Td, Ballina, Co. Mayo.	6/07/2023 Grant with Conditions
ABP Ref: 313724	"'North Connacht Project' consisting of approximately 59km of underground cable between the existing Moy substation, near Ballina, Co. Mayo and the existing Tonroe substation, near Ballaghaderreen, Co. Roscommon.	15.09.2022 Grant with Conditions
MCC Reg. Ref: 2028 ABP-308100-20	Construct 2 storey dwellinghouse and single storey domestic garage, connect to all services and public utilities, carry out all ancillary site works on site located to the northeast of protected monument Reg. No.31303016	07.08.2020 Grant with Conditions 22.12.2020 Appealed and Granted with Conditions
MCC Reg. Ref. 15864	Change of use of existing commercial unit to restaurant and takeaway. Permission for minor alterations to existing building	11/04/2016 Grant with Conditions.

	including all other ancillary site work and services.	

5.0 Legislative and Policy Context

5.1 Relevant legislative provisions

EU EIA Directive (2014/52/EU)

The Environmental Impact Assessment Directive (EIA Directive) means Directive 2014/52/EU of the European Parliament and of the Council of 16th April 2014 amending Directive 2011/92/EU on the assessment of the effects of certain public and private projects on the environment.

European Union (Planning and Development) (Environmental Impact Assessment) Regulations 2018

These Regulations transpose the requirements of the 2014 Directive into Irish legislation setting out the requirements for planning consent procedures.

EU Habitats Directive (92/43/EEC)

This Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) and 6(4) require an appropriate assessment of the likely significant effects of a proposed development on its own and in combination with other plans and projects which may have an effect on a European Site (SAC or SPA).

European Communities (Birds and Natural Habitats) Regulations 2011

These Regulations consolidate the European Communities (Natural Habitats) Regulations 1997 to 2005 and the European Communities (Birds and Natural Habitats) (Control of Recreational Activities) Regulations 2010, as well as addressing transposition failures identified in CJEU judgements. The Regulations in particular require in Reg 42(21) that where an appropriate assessment has already been carried out by a 'first' public authority for the same project (under a separate code of legislation) then a 'second' public authority considering that project for appropriate assessment under its own code of legislation is required to take account of the appropriate assessment of the first authority.

5.2 National nature conservation designations

The Department of Culture, Heritage and the Gaeltacht and the National Parks and Wildlife Service are responsible for the designation of conservation sites throughout the country. The three main types of designation are Natural Heritage Areas (NHA), Special Areas of Conservation (SACs) and Special Protection Areas (SPAs) and the latter two form part of the European Natura 2000 Network.

European sites located in proximity to the subject site include:

- River Moy SAC (002298)
    - The Proposed Scheme is located within the River Moy SAC with works required within the river itself in addition to several tributaries which flow into the SAC.
- Killala Bay/Moy Estuary SAC (000458)
    - The Proposed Scheme is located within the Killala Bay/Moy Estuary SAC withworks required within the Moy estuary (IE_WE_420_0300) itself.
- Killala Bay/Moy Estuary SPA (004036)
    - The Proposed Scheme is located within the Killala Bay/Moy Estuary SPA with works required within the Moy estuary.
- Lough Conn and Lough Cullin SPA (004228)
    - This SPA is located upstream of the Proposed Scheme area, therefore no suitable hydrological connectivity between the Proposed Scheme area and the SPA exists.
    - The SPA and scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SPA and the scheme area. However, the groundwater flows towards the nearest rivers and lakes, therefore groundwater is most likely to flow from the Proposed Scheme to the River Moy.

5.3 Planning and Development Acts 2000 (as amended)

Part X of the Act sets out the requirements for the environmental impact assessment of developments which necessitate the preparation of an EIAR.

- Section 175 (1) sets out the requirements for the environmental impact assessment of developments carried out by or on behalf of local authorities.
- Section 175 (1) requires a local authority to prepare, or cause to be prepared, an Environmental Impact Assessment Report in respect of the proposed development.
- Section 175 (2) states that a proposed development in respect of which an EIAR is required shall not be carried out unless the Board has approved it with or without modifications.
- Section 175 (3) states that where an EIAR has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval of the proposed development.
- Section 175 (6) states that before making a decision in respect of a proposed development, the Board shall consider the EIAR and any other information furnished and relating to the likely effects on the environment; the likely consequences for proper planning and sustainable development in the area; the views of any other Member State of the European Communities or a state which is a party to the Transboundary Convention to which a copy of the EIAR was sent; the report and any recommendations of the person conducting an oral hearing.
- Under Section 175(9)(a), the Board shall make its decision on the application within a reasonable period of time and may, in respect of such application:
    - approve the proposed development,
    - make such modifications to the proposed development as it specifies in the approval and approve the proposed development as so modified,
    - approve, in part only, the proposed development (with or without specified modifications of it of the foregoing kind), or

- refuse to approve the proposed development,
- and may attach to an approval under subparagraph (i), (ii) or (iii) such conditions as it considers appropriate.

Section 175 (12) states that the Board shall have regard to the provisions of any special amenity order relating to the area; the area or part of the area is a European site or an area prescribed for the purposes of section 10(2)(c), that fact; where relevant, the policies of the Government, the Minister or any other Minister of the Government, and the provisions of this Act and regulations under this Act where relevant.

Part XAB sets out the requirements for the appropriate assessment of developments which could have an effect on a European site or its conservation objectives.

- 177(AE) sets out the requirements for the appropriate assessment of developments carried out by or on behalf of local authorities.
- Section 177(AE) (1) requires a local authority to prepare, or cause to be prepared, a Natura impact statement in respect of the proposed development.
- Section 177(AE) (2) states that a proposed development in respect of which an appropriate assessment is required shall not be carried out unless the Board has approved it with or without modifications.
- Section 177(AE) (3) states that where a Natura Impact Assessment has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval and the provisions of Part XAB shall apply to the carrying out of the appropriate assessment.
- Section 177(V) (3) states that a competent authority shall give consent for a proposed development only after having determined that the proposed development shall not adversely affect the integrity of a European site.
- Section 177AE (6) (a) states that before making a decision in respect of a proposed development the Board shall consider the NIS, any submissions or observations received and any other information relating to:
    - The likely effects on the environment.

- The likely consequences for the proper planning and sustainable development of the area.
- The likely significant effects on a European site.

5.4 Policy and Guidelines of Relevance

The following policy and guidelines are considered relevant to the proposed development:

- National Planning Framework – Project Ireland 2040
    - The NPF sets out a framework of policy objectives to help Ireland achieve its long-term sustainable goals. The NPF focuses on integrating Ireland's economic development, spatial planning, infrastructure planning and social considerations. It promotes environmentally focused planning at the local level to tackle climate change and the implementation of appropriate measures to mitigate existing issues.
    - The NPF aims to align itself with the UN's Sustainable Development Goals (SDGs) by ensuring that the decision-making process safeguards the needs of future generations. These objectives are integrated as part of the National Strategic Outcomes (NSOs) in areas such as climate action and planning, sustainable cities, and innovation and infrastructure.
    - The NPF notes the need to respond to climate change and its impacts "(…) such as sea level change, more frequent and sustained rainfall events and greater vulnerability of low-lying areas to flooding." Flooding is recognised as a cross-sectoral issue that can affect all aspects of life.
    - NSO9 is relevant to flood management because it focuses on the need for investment in water services infrastructure. This strategic outcome particularly recognises the challenges posed by climate change, which is expected to alter water levels in waterbodies such as rivers and

lakes. These changes may result in more severe and frequent flooding. Therefore, NSO9 stresses the importance of considering these potential impacts when planning water services and developing strategies to enhance flood resilience. This approach will ensure that future water infrastructure can cope with the increasing risk of flooding, aiding in effective flood relief measures.

- National Development Plan 2021-2030
    - Under NSO9, which relates to the sustainable management of water and other environmental resources, it sets out strategic investment priorities, including delivering commitments under the River Basin Management Plan. Furthermore, NSO 8, which addresses the transition to a climate-neutral and climate-resilient society, notes the role of FRSs identified in the FRMPs. These FRSs provide protection to properties and economic benefits in damage and losses avoided but also help reduce the country's vulnerability to the adverse effects of climate change.
    - In line with NSO9 of the NDP, the proposed flood relief measures will allow for the sustainable management of flood risks associated with the River Moy. Furthermore, consistent with NSO8 of the NDP, the proposed flood relief infrastructure will allow for climate change and adaptation, safeguarding Ballina from the impacts of increased rainfall events.
- The National Marine Planning Framework 2021 (NMPF)
    - The National Marine Planning Framework 2021 (NMPF) provides for a comprehensive marine spatial planning framework. It brings together all marine-based human activities and outlines the Government’s vision, objectives and marine planning policies for each marine activity.
    - The NMPF recognises that, “Climate change is expected to alter patterns in storm surges, sea level rise, and floods that can all play a part in coastal change”.

- It provides for the co-ordination of appropriate measures to deal with coastal change resulting from climate change (incl. storm surges, sea level rise and floods) and requires that, “proposals should demonstrate that they have considered, and are resilient to, the effects of climate change for the lifetime proposed plans”.

- Climate Action Plan 2015, as amended
    - The CAP24 notes that Ireland has experienced first-hand the consequences of climate change. These changes will cause direct and indirect harm to communities, including predicted impacts arising from coastal, groundwater, and river flooding, which will require action.
    - The CAP 2023 sets out actions in order to reduce the risk of flooding within Ireland, inter alia: • AD/24/2: “Complete a review of the national Preliminary Flood Risk Assessment to assess the potential impacts of climate change on flooding and flood risk across Ireland.”

      • AD/24/5: “Improve the resilience of Ireland’s water infrastructure through implementation of a Nature Based Solutions (NBS) Programme”

      • AD/24/14: “Develop Ireland’s first National Climate Change Risk Assessment setting out the priority impacts of climate change for Ireland.”

Note: The EIAR refers to CAP2024 and I note that this has now been updated with CAP2025. The Climate Action Plan 2025 (CAP25) is the third annual statutory update to Ireland’s Climate Action Plan 2015 under the Climate Action and Low Carbon Development (Amendment) Act 2021. CAP25 builds on previous Climate Action Plans by refining and updating the measures required to deliver carbon budgets and sectorial emission ceilings. It provides a roadmap for taking action to reduce greenhouse gas emissions by 51% by 2030 and achieve climate neutrality by no later than 2050. The CAP has six vital high impact sectors where the biggest savings can be made: renewable energy, energy efficiency of buildings, transport, sustainable farming, sustainable business and change of land-use.

- National Biodiversity Action Plan 2023–2030

- The NBAP sets the national biodiversity agenda for 2023-2030 and aims to deliver the transformative changes required in the ways in which we value and protect nature. Thus, it takes account of the wide range of policies, strategies, conventions, laws, and targets at the global, EU, and national levels that influence our shared environment to scale up biodiversity action.
- The NBAP has five overarching objectives:

  • Objective 1: “Adopt a Whole-of- Government, Whole- of-Society Approach to Biodiversity”

  • Objective 2: “Meet Urgent Conservation and Restoration Needs”

  • Objective 3: “Secure Nature’s Contribution to People”

  • Objective 4: “Enhance the Evidence Base for Action on Biodiversity”

  • Objective 5: “Strengthen Ireland’s Contribution to International Biodiversity Initiatives”

- Biodiversity Action Strategy 2022-2026
  - The BAS sets out OPW’s approach to protecting, promoting and enhancing biodiversity across its operations. The BAS identifies strategic actions to help deliver Government policy through contribution to the delivery of the NBAP.
  - It is noted that the OPW is an Irish government office whose primary function is to support the implementation of government policy. The OPW advises the Minister for Public Expenditure and Reform and the Minister of State in that department, principally in the disciplines of property (including heritage properties) and flood risk management.
- The Planning System & Flood Risk Management (2009)
  - The Flood Risk Guidelines were prepared by the OPW and DEHLG in response to the recommendations set out in the 2004 Report of the Flood Policy Review Group (refer to section above). Its publication is also linked to the mandate set out in the FDW, which requires EU Member States to prepare flood risk management plans.

- The Flood Risk Guidelines advocate a proactive approach to preventing flooding. This includes, for example, adopting general policies for protection, improving or restoring floodplains, and upgrading flood barriers.
- Regarding flood zones and flood risk management, the Flood Risk Guidelines note that "the provision of flood protection measures in appropriate locations, such as in or adjacent to town centres, can significantly reduce flood risk" (OPW and DEHLG, 2009) and that "Minimising risk can be achieved through structural measures that block or restrict the pathways of floodwater" (OPW and DEHLG, 2009).

- The Water Framework Directive (WFD) Directive 2000/60/EC
  - The WFD focuses on ensuring good qualitative and quantitative health, i.e. on reducing and removing pollution and on ensuring that there is enough water to support wildlife at the same time as human needs.
  - Ireland is required to comply with four main obligations under the environmental objectives of Article 4 of WFD, namely to:
    - Prevent deterioration of the status of all bodies of surface water and groundwater.
    - Protect, enhance and restore all bodies of surface water and groundwater with the aim of achieving at least good status by the end of 2027 at the latest.
    - Protect and enhance all artificial and heavily modified bodies of water, with the aim of achieving at least good ecological potential and good surface water chemical status.
    - Achieve compliance with the standards and requirements for designated protected areas.
- Water Action Plan 2024 A River Basin Management Plan for Ireland
  - The Water Action Plan 2024 A River Basin Management Plan for Ireland (hereafter, the Water Action Plan 2024) prepared by the Government of Ireland sets out Ireland's approach to protect and

restore its rivers, lakes, estuaries and coastal waters over the third cycle of the EU Water Framework Directive (WFD). The Plan builds upon the previous two cycles of River Basin Management Plans and signals to the international community, Ireland's commitment to implementing the United Nations Sustainable Development Goal 6 to improve water quality, protect and restore water-related ecosystems.

  - The Plan sets out the environmental improvements to be delivered during a river basin planning cycle. The plans contain water quality objectives and a programme of measures to achieve those objectives.
  - Flooding, flood relief works and the need for protection against flooding are referenced within the RBMP. The increasing prevalence of flooding, due in part to climate change is acknowledged.

- Flood Risk Management: Climate Change Sectoral Adaptation Plan
  - The Ballina FRS, is identified as one of the schemes to be progressed in the first phase of the future capital programme's delivery.
  - The Climate Change SAP sets out 21 no. actions which shall ensure effective and sustainable management of flood risk in the future.
- The National Adaptation Framework 2024: Planning for a Climate Resilient Ireland
  - While providing limited guidance on flood relief schemes, the NAF acknowledges the increasing frequency and intensity of extreme weather events, including projected precipitation that may increase pluvial and fluvial flooding due to climate change and supports capital investment in flood adaptation measures. In this regard, investments in critical infrastructure, such as water management systems, are highlighted to ensure they can withstand severe flooding events. Furthermore, it notes the role of local authorities in developing and implementing local climate adaptation measures, focusing on flood-prone areas and strengthening infrastructure to better cope with increased rainfall. These actions aim to reduce vulnerabilities in terms

of flood risk and align with broader national objectives for climate resilience.

- Guidelines on Protection of Fisheries During Construction works in and adjacent to Waters (Inland Fisheries Ireland, 2016)
    - These guidelines set out the main issues of concern in terms of construction impacts and their prevention. The set out inter alia requirements in relation to bridges and culverts and the need for such structures to allow for unhindered upstream and downstream movement of fish and aquatic life.
- Guidelines on the management of noxious weeds and non-native invasive plant species on national roads (National Roads Authority, Dec 2010)
    - Best practise guidance on precautionary measures to limit the spread of nonnative invasive plant species.

National Planning Framework Project Ireland 2040

The National Policy Position establishes the fundamental national objective of achieving transition to a competitive, low carbon, climate resilient and environmentally sustainable economy by 2050. Flood relief measures are highlighted in Section 9 of the NPF. NPF Objective 57 emphasises the importance of flood relief works as part of the national agenda for climate adaption.

The Regional Spatial and Economic Strategy (RSES) for the Southern Region

Sets out a number of objectives for infrastructural investment in order to achieve the overall development objectives of the RSES, which are stated to be in line with the NPR and other national and EI objectives. RPO 9 sets out as an objective to ensure the delivery of infrastructure prioritises compact growth and sustainable mobility, and RPO 89 sets an objective to support measures to build resilience to climate change. RPO 113; 114; 115; 116, 117, and 118 set out specific policies on flood risk management and other planning/environmental objectives.

Climate and Low Carbon Development Act: the Climate and Low Carbon Development Act 2015 as amended (the Climate Act).

Section 15(1) of the 2015 Act (as substituted by section 17 of the Climate Action and Low Carbon Development (Amendment) Act 2021 (the "2021 Act")) provides that:

"A relevant body shall, in so far as practicable, perform its functions in a manner consistent with—

(a) the most recent approved climate action plan,
(b) the most recent approved national long term climate action strategy,
(c) the most recent approved national adaptation framework and approved sectoral adaptation plans,
(d) the furtherance of the national climate objective, and
(e) the objective of mitigating greenhouse gas emissions and adapting to the effects of climate change in the State.''

National Biodiversity Action Plan (NBAP) 2023-2030:

The NBAP includes five strategic objectives aimed at addressing existing challenges and new and emerging issues associated with biodiversity loss.

Section 59B(1) of the Wildlife (Amendment) Act 2000 (as amended) requires the Commission, as a public body, to have regard to the objectives and targets of the NBAP in the performance of its functions, to the extent that they may affect or relate to the functions of the Commission. The impact of development on biodiversity, including species and habitats, can be assessed at a European, National and Local level and is taken into account in our decision-making having regard to the Habitats and Birds Directives, Environmental Impact Assessment Directive, Water Framework Directive and Marine Strategy Framework Directive, and other relevant legislation, strategy and policy where applicable.

The Mayo County Development Plan (CCDP) 2022-2028

The Mayo County Development Plan 2022 – 2028 (CDP) is the primary articulation of local statutory planning policy in the county. As such it provides guidance inter alia on the development of Ballina and the provision of flood relief defences.

Development of Ballina Town - The policies and objectives of the CDP support the growth and development of Ballina town, particularly the existing town centre,

proximate to the River Moy. The CDP contains Settlement Strategy Policies (SSP), Settlement Strategy Objectives (SSO) and Economic Development Policies (EDP).

The Ballina Local Area Plan 2024-2030 (Ballina LAP) is now in effect and land use zonings are considered in the planning report submitted with the application. The proposed works cross lands with a variety of zoning designations in the CDP, inter alia, town centre, edge of town centre and existing residential. As the works do not substantively impact on the proposed uses of these sites, I do not consider that the specific zoning designations are relevant in assessing the proposed development.

A flood relief scheme is identified as part of the "medium / longer term vision" for the Town Core, Moy Quarter and Cathedral Quarter.

Flood Risk Management

The CDP outlines that flooding is the most common source of climate related impacts and loss around the country, with Ballina being a town at a high risk for flooding. The CDP aims to promote efficient flood risk practices in planning and development management and to deliver infrastructural provision which will reduce flood risk:

Policy INP 15

"To support the implementation of the recommendations in the Flood Risk Management Plans (FRMP's), including planned investment measures for managing and reducing flood risk".

Policy INP 16

"To support the implementation of recommendations in the CFRAM Programme to ensure that flood risk management policies and infrastructure are progressively implemented."

Objective INO 21

"To assist the OPW in developing catchment-based Flood Risk Management Plans for rivers in County Mayo and have regard to their provisions/recommendations".

Objective INO 23

"To ensure that where flood risk management works take place that natural heritage, cultural heritage, rivers, streams and watercourses are appropriately protected."

Paragraph 7.4.6 'Draft Ballina Strategic Flood Risk Assessment', paragraph 7.4.7 'Draft Ballina Local Transport Plan 2023', paragraph 7.4.8 'Ballina Draft Public Realm Strategy', paragraph 7.4.9 'Local Biodiversity Action Plan' of the Planning Report submitted in support of the FRS indicates that the proposed scheme is in accordance with and in no way prejudicial to the implementation of these plans.

The Flood Risk Management Plan Moy and Killala Bay (2018), prepared by the OPW, sets out the strategy, including a set of proposed measures, for the cost-effective and sustainable, long-term management of flood risk in the River Basin, including the areas where the flood risk has been determined as being potentially significant.

"For Ballina & Environs, it is proposed in the Plan that a flood relief scheme is progressed to project-level development and assessment, including environmental assessment as necessary and further public consultation, for refinement and preparation for planning / exhibition and, if and as appropriate, implementation."

The subject FRS accords with this recommendation and an EIAR and Flood Risk Assessment have been prepared and are submitted as part of the planning consent documentation.

6.0 Consultations

6.1 Consultees Circulated

The application was circulated to the following bodies:

- An Taisce
- Arts Council
- Fáilte Ireland
- Department of Housing, Local Government and Heritage
- Heritage Council
- Inland Fisheries Ireland
- Irish Rail

- Transport Infrastructure Ireland
- Environmental Protection Agency
- Department of the Environment, Climate and Communications

6.2 Responses Received from Consultees

Responses were received from the following bodies:

An Taisce:

- Acknowledges the flood risk of this area, and the serious threat posed to homes and lives.
- Notes the “near threatened” and protected status of sea lamprey and request ACP to consider closely the instream works proposed.
- Recommend the project be assessed against Article 4 of the Water Framework Directive to determine whether the project may cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwater status or of good ecological potential and good surface or ground water chemical status.
- Highlight the designation of River Moy as Salmonid River and presence of salmon in the Zone of Influence of the scheme, and therefore highlighting that the robustness of mitigation measures in the EIAR for salmon are considered.
- Note that Otter are likely to utilise the riparian stretches along the river for habitat and foraging activity. Otters are an Annex II and IV species under the Habitats Directive, and are protected under the Wildlife Acts, therefore mitigation of adverse otter impacts and sensitive construction works are required.
- Recommend that the granted NPWS derogation licence (DWR-Otter-2025-09) is carefully considered. Recommend that retention of otter habitat in the first instance, in the form of riparian embankments, would be preferable to removal of habitat.

- Importance of Consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS) as set out in Mayo County Development Plan Objectives in relation to Flood Relief Measures.
- Welcome the reconfiguration of the original flood wall layout to ensure retention of the riparian zone and mature trees along the Tullyegan stream. Riparian embankments and trees can help to mitigate flooding and can complement hard engineering solutions. However, query the necessity to remove some trees within riparian habitat upstream of Rathkip/Shanaghy Bridge.
- Recommend environmentally friendly lighting with a limiting colour temperature to less than 2,700 Kelvins.
- Emphasise the importance of conducting a rigorous hydromorphological assessment of downstream effects in terms of velocity, flow, depth etc, particularly the changes to baseline conditions upon installation of flood walls which could adversely impact the preferred habitat of salmonids and lamprey.

Transport Infrastructure Ireland (TII)

- Scour Assessment and appropriate Mitigation Measures, where relevant, on the following four national road structures;
    - TII Structure ID MO-N26-001.00 (Rahans Bridge) identified as Tullyegan in the FRS,
    - TII Structure ID MO-N59-001.70 (Ballina Upper Bridge)
    - TII Structure ID MO-N59-002.00 (Ballina Lower Bridge) identified as Moy in the FRS, and
    - TII Structure ID MO-N59-001.00 (Brusna River Bridge) identified as Bunree in the FRS.
- Proposals for structural repairs to retaining walls which support national roads to be agreed with MCC and TII Bridge Management Section

- Requirement for Technical Acceptance in accordance with TII Publications DN-STR-03001 for box culvert under the N59
- Requirement for Technical Acceptance in accordance with TII Publications DN-STR-03001 should flood walls tie into existing bridge structures.
- TII fully supports the need to develop a Flood Relief Scheme (FRS) for Ballina in the interests of protecting residents and businesses from serious flooding events.

Uisce Eireann

Uisce Eireann (UE) state in their observation they have reviewed the plans and particulars of the Proposed Scheme and note there are no new connections proposed to UE's infrastructure as part of the Scheme, there are no UE abstraction points within the section of Moy where the Scheme is located and there is no implication for a water source protection impacts arising from the Proposed Scheme. UE note that underground uE infrastructure and the proposed uE lough TaIt Water Supply Upgrade Project have been considered in the Proposed Scheme constraints study and cumulative impacts, and that early and detailed engagement with uE in relation to the Proposed Scheme was undertaken to discuss potential interactions and suitable mitigation. UE states:

'Uisce Eireann acknowledges the applicant's engagement regarding the interactions between public in situ water services infrastructure and the proposed works. As a result of this early engagement, a detailed summary of the interactions has been included in the supporting EIAR. It lists potential interactions, detailing constraints or other extenuating factors for each potential clash and lists potential diversions and/or remedial works. Uisce Eireann has reviewed and is satisfied with the proposed scheme impact mitigation plan. The plan stipulates that all be considered individually and in consultation with Uisce Eireann, and that works will be undertaken and delivered in agreement with Uisce Eireann via our developer services diversion process.'

Further engagement will be undertaken with Uisce Eireann as necessary as the project progresses. It is noted that should both this Relief Scheme and the proposed Ballina and Lough TaIt Water Supply Upgrade Project be consented, the

construction phases for both projects may potentially be undertaken at the same time.

6.3 Public Submissions

Moyvale Residents Association

- Water Safety Concerns pertaining to the existing and proposed increase to an exposed stream running through the main playing area of Moyvale.
- Water Safety Concerns pertaining to accessibility to exposed stream.
- Current Design Proposals: Inclusion of “angled banks” and “vertical walls” over beach like gradient at stream banks.
- Direct Access pathway (pedestrian RoW) to N59: inclusion of culvert would block right of way
- Impact of existing Vehicular Traffic on Moyvale Estate – Noise & Pedestrian Safety concerns with the removal of trees in the area.
- Opportunity to include a raised pedestrian crossing from the pedestrian gate of Moyvale to the Downhill Inn and Knocknalyre.
- Alternative suggested open stream sections along Behy Road within grounds of Downhill Inn.
- Potential loss of existing laurel hedge, trees and biodiversity
- Moyvale Residents to be valued as shareholders.
- Totally opposed to having any stream running within the playing space at the front of the Moyvale estate.

6.4 Response of Applicant to Submissions

A response by RPS on behalf of Mayo County Council was received, by ACP, on the 14th July 2025. It is summarised as follows:

- Appendix 9 of the EIAR clearly sets out the proposed instream works areas in relation to sea lamprey spawning and nursery habitat.
- Numerous surveys of the River Moy have been undertaken.

- Temporary works areas do not impinge on sea lamprey spawning habitat.
- As set out in Chapter 9 Section 9.4.4.1 of the EIAR, temporary works in the Ridgepool do impinge on marginal and limited sea lamprey nursery habitat in one location in the RHS of the Ridgepool immediately upstream of the Upper Bridge. Robust mitigation for this impact is set out clearly in Section 9.5.1.3 (Mitigation) of Chapter 9 of the EIAR.
- The patch of nursery habitat on the LHS in front of Ballina Manor is not impacted by the proposed instream works and will be cordoned off on the landward side and marked as an “exclusion zone" during works in the Ridge Pool.
- There are minor, if any effects on fisheries habitats in any of the watercourses that actually have fish sensitivity. Brusna (Glenree), Tullyegan and River Moy are the only channels that have fisheries sensitivity as identified comprehensively in Chapter 9: Section 9.3 of the EIAFR, noting that: (1) the River Moy is tidal, does not support salmonid spawning in the Proposed Scheme footprint and is only a migration route for salmonids, (2) Brusna / Glenree is a good salmonid stream with high energy / spate flow that does not facilitate silt deposition in either the pre- or post- scheme scenarios, and (2) Tullyegan is a highly modified, drained, channelised low quality trout stream. Potentially positive effects on trout (and possibly brook lamprey spawning habitat) are likely in the Tullyegan as the post-works velocities will help flush out fine sediment, likely improving the suitability of spawning habitat for trout and brook lamprey in this currently drained and channelised watercourse.
- Siltation will not be an effect of the proposed scheme.
- The Quignamanger is not a sensitive salmonid stream.
- Detailed consultation was undertaken with both IFI and NPWS throughout the EIAR/ NIS preparation phase.
- There are currently no proposals to change the nature of the lighting except for making a change to LED lighting where lights have not already been upgraded. Where upgrades are required, lighting with a limiting colour temperature to less than 2,700 Kelvins can be implemented.

- There will be no permanent loss of otter habitat anywhere across the Proposed Scheme. Any temporarily affected holt will once again be free for use by otter when the works are completed.
- Two artificial holts will be provided along the Brusna for use by otter while the current holt is not available for use.
- Water safety concerns by residents of Moyvale has been addressed and discounted.
    - It is accepted that waterbodies present a risk to all age groups. However, the risk of retaining an open watercourse adjacent to a residential development (housing estate) must be balanced against the environmental, ecological and public realm gains derived from this approach. Children (including young children) can benefit from the experience of growing up (including playing) in the vicinity of a well-designed and maintained public space that incorporates a natural watercourse – out of sight and out of mind does not equate to zero risk.
    - The current proposals do not represent the final design/treatment for the 'open stream' area.
    - The stage 3 design will include a mix of gradients, shrub/tree planting and discreet temporary fencing – pending the maturing of planted areas. Further consultation will be undertaken with the residents as part of the detailed design to address their safety concerns
- There will be no loss of direct access to the N59, from the Green area. The existing Pedestrian route from the Green area to the N59 can be maintained by including a short culverted section (subject to planning) over the open stream. This in turn can be incorporated into an improved Public Realm space/Green area.
- The proposal will address issues of pedestrian safety along the N59 and adjoining roads / thoroughfares.

- It has been determined that retaining the section of watercourse which extends from the Behy Road Industrial Estate (Davys Tool Hire) to the N59 culvert crossing, as an open watercourse, is not viable.
- Some trees will require removal however improvements to planting and landscaping shall be carried out as outlined in Chapter 16 of the EIAR.
- Mayo County Council is committed to meeting and working further with the residents of Moyvale through the detailed design stage of this project.
- Uisce Eireann
    - Noted that no issues of concern have been raised by Uisce Eireann.
- In response to TII.
    - A scour assessment has been undertaken on TII Structure ID MO N26 001.00 (N26 bridge on the Tullyegan) in accordance with both the old standard (UK BD97/12) and the latest standard (UK CS 469) for both the existing and defended conditions using the 0.5% AEP flows and velocities.
    - It is summarised that as there are no changes to any of the other inputs to the scour assessment calculations it can therefore be concluded that there is no increase in scour risk at these locations from the proposed works.
    - It is agreed that proposals for structural repairs to existing walls which support national roads shall be agreed with Mayo County Council and TII Bridge Management Section prior to the commencement of any development on-site and works shall be undertaken in accordance with the detailed agreed therein.
    - A Technical Acceptance (TA) application will be made to TII in accordance with TII Publications DN-STR03001 (Technical Acceptance of Roads Structures on Motorways and Other National Roads) for the proposed 2.0x1.25m box culvert proposed under the N59 national road, prior to any proposed works in the road.

- It is not proposed that the flood walls are connected structurally to the existing bridges but rather abut the bridge structures. It is proposed to consult with TII Bridge Management Section as part of the detailed design for the scheme and agree a suitable connection arrangement.

7.0 Assessment

Having regard to the requirements of the Planning and Development Act, 2000 (as amended), this assessment is divided into three main parts:

- The likely consequences for the proper planning and sustainable development of the area;
- The likely effects on the environment (Environmental Impact Assessment);
- The likely significant effects on a European site (Appropriate Assessment).

7.1. The likely consequences for the proper planning and sustainable development of the area.

I will address this under the following headings:

- **Policy context**
- **Strategic justification and need for the project**
- **The Maritime Area Consent**
- **Derogation License**
- **Conditions**
- **Conclusions**

7.2. An assessment of design considerations and amenity, landscape and visual, flooding and drainage, aquatic and terrestrial biodiversity, traffic, climate, air quality, noise and vibrations, material assets, archaeology and cultural heritage, population and human health are all dealt with under the Environmental Impact Assessment (EIA) Section 8.0 of this report and also within the Appropriate Assessment (AA) section 11 of this report and the Appendices attached. In each assessment, where necessary, reference is made to issues raised by all parties, incl Moyvale Residents

Association, An Taisce, TII and Uisce Eireann. There is an inevitable overlap between the assessments, for example on matters of concern raised by:

An Taisce with respect to:

- adverse impact upon otter.
- Importance of Consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS)
- query the necessity to remove trees within riparian habitat upstream of Rathkip/Shanaghy Bridge.
- adverse impact upon the habitat of salmonids and sea lamprey.
- Lighting intensity.

Moyvale Residents Association with respect to:

- water safety concerns for children playing in the open green area to the front of Moyvale housing estate, should the existing culverted stream be opened up and exposed.
- concern current design proposals include “angled banks” and “vertical walls” over beach like gradient at stream banks.
- potential loss of existing laurel hedge, trees and biodiversity within Moyvale Estate.
- Pedestrian connectivity - access from Moyvale to N59.

TII with respect to:

- A requirement for Technical Acceptance in accordance with TII Publications.
- Scour assessment and appropriate mitigation measures
- Importance of conducting a rigorous hydromorphological assessment of downstream effects in terms of velocity, flow, depth etc, particularly the changes to baseline conditions upon installation of flood walls which could adversely impact the preferred habitat of salmonids and lamprey.

I have dealt with all matters raised in my examination of the EIAR, with all matters raised falling within the environmental impact assessment. In the interest of brevity, matters are not repeated, here.

7.2.1. Policy context

I highlight the legislation and policy context set out above in section 5.0 of this report. It is noteworthy that CAP 2015, as amended and the NPF notes the need to respond to climate change and its impacts. In particular, I note that the NPF sets out "(…) such as sea level change, more frequent and sustained rainfall events and greater vulnerability of low-lying areas to flooding." Flooding is recognised as a cross-sectoral issue that can affect all aspects of life.

NSO9 of the NPF is relevant to flood management because it focuses on the need for investment in water services infrastructure. This strategic outcome particularly recognises the challenges posed by climate change, which is expected to alter water levels in waterbodies such as rivers and lakes. These changes may result in more severe and frequent flooding. Therefore, NSO9 stresses the importance of considering these potential impacts when planning water services and developing strategies to enhance flood resilience. It is highlighted that this approach will ensure that future water infrastructure can cope with the increasing risk of flooding, aiding in effective flood relief measures.

The CAP25 notes that Ireland has experienced first-hand the consequences of climate change. Noting that these changes will cause direct and indirect harm to communities, including predicted impacts arising from coastal, groundwater, and river flooding, which will require action.

The Western Catchment Flood Risk Assessment and Management (CFRAM) Study 2018 led to the development of Flood Risk Management Plans (FRMP), including the Moy and Killala Bay FRMP (2018). The Flood Risk Management Plan Moy & Killala Bay sets out potentially viable flood relief methods, from which a potentially viable flood risk management measure for the AFA as a whole can be developed.

The Flood Risk Management: Climate Change Sectoral Adaptation Plan, identifies the Ballina FRS, as one of the schemes to be progressed in the first phase of the future capital programme's delivery.

The policies and objectives of the MCCCDP support the growth and development of Ballina town, particularly the existing town centre, proximate to the River Moy. Policy SSP2 of the settlement strategy states: “Support the continued growth and sustainable development of Ballina, Castlebar and Westport, as designated Tier I towns (Key Towns and Strategic Growth Town) in the Settlement Strategy, capitalising on Ballina’s designation as a Key Town in the context of the Sligo Regional Growth Centre and Castlebar/Westport as a linked growth driver in the region.”

A flood relief scheme is identified as part of the “medium / longer term vision” for the Town Core, Moy Quarter and Cathedral Quarter in the Ballina LAP 2024 – 2030. The Proposed Scheme directly addresses the stated vision for the town core and reduces flood risk. The proposed scheme supports the growth of the town, making it a more attractive place for residents, workers and visitors and enhances the climate resilience of the town.

I consider that the Ballina LAP notes the background to the subject FRS and that the FRS is now being progressed. Chapter 10 Infrastructure and Environmental Services, Section 10.4 Flood Risk Management outlines specific planning development management standards for development where there is an identified or potential flood risk and outlines the progress being made in the bringing forward of the Ballina Flood Relief Scheme. This Chapter also includes Objectives IESO 3, which states:

“It is an objective of the Council to:

a) Manage flood risk in accordance with the requirements of “The Planning System and Flood Risk Management Guidelines for Planning Authorities”, DECLG and OPW (2009) and any revisions thereof and consider the potential impacts of climate change in the application of these guidelines.

c) Minimise flood risk arising from pluvial (surface water) flooding in Ballina by promoting the use of natural flood risk management measures including sustainable

drainage systems (SuDS), minimising extent of hard surface/paving, and smart solutions such as innovative green infrastructure.

f) The LAP supports the on-going design, planning and implementation of the Ballina Flood Relief Scheme".

The Proposed Scheme will implement flood relief measures that address current and anticipated flooding events in Ballina, derived from the River Moy and its' tributaries. Thus, the Proposed Scheme will protect Ballina and its communities from flood risks and deliver flood risk infrastructure to adapt to climate change and manage increased flooding risks due to increased rainfall events caused by changing climate patterns, thus aligning with the provisions and vision in NSO9 of the NPF, the Flood Risk Management Guidelines, the Mayo County Development Plan and the Ballina LAP 2024 – 2030.

I consider that the proposed flood relief scheme is fully in line with environmental policy and the Ballina LAP 2024 – 2030 and is plan led. It aims to protect vulnerable urban areas from flooding, subject to the works being undertaken with full regard to other policy and statutory requirements, in particular with regard to the Water Framework Directive and the Habitats Directive.

7.2.2. **Strategic justification and need for the project**

The Office of Public Works (OPW), working in partnership with MCC and other local authorities completed the Western Catchment Flood Risk Assessment and Management (CFRAM) Study in 2018. The CFRAM Programme mapped the existing and potential future flood hazards and flood risk in the areas at potentially significant risk from flooding. It focussed on 300 communities. The study included Ballina and its environs (ID no. 340534) as an Area for Further Assessment (AFA) and it identifies that a Flood Relief Scheme (FRS) would be viable and effective for the community. The CFRAM Programme led to the development of Flood Risk Management Plans (FRMP), including the Moy and Killala Bay FRMP (2018).

The Flood Risk Management Plan Moy & Killala Bay sets out potentially viable flood relief methods, from which a potentially viable flood risk management measure for the AFA as a whole can be developed. Arising from Ballina's current susceptibility to

flooding in conjunction with the expected increase in future flooding, there is a strong need to develop a FRS to protect Ballina residents from serious flooding events and to preserve Ballina as an attractive town for development. Ballina has a long history of flooding events because of the River Moy's high-water levels, in conjunction with inadequate conveyance capacities of the smaller stream/channels and associated culverts. The highest observed water level recorded a height of 3.21 mOD-Malin in 2014. Within this flood plain, approximately 370 residential and 101 commercial receptors may potentially be affected by flooding within the River Moy catchment.

Overall I consider that the Proposed Scheme is strategic and will deliver flood protection to address an identified need in the CFRAMS Study.

7.2.3. **The Maritime Area Consent**

The Maritime Area Planning Act 2021 established a new marine development management regime from the high water mark to the outer limit of the State's continental shelf, administered by An Coimisiún Pleanála, the coastal local authorities and the Maritime Area Regulatory Authority (MARA). A Maritime Area Consent (MAC) is required before a planning application may be made. A MAC (Ref. No. AC20230008) was obtained on the 14th March 2025. Some of the maritime area within the application boundary is within the ownership of private landowners. Letters of consent to submit this application have been received from all such landowners.

7.2.4. **Derogation Licence**

The National Parks and Wildlife Service (NPWS) have issued a derogation under Regulation 54 of the European Communities (Birds and Natural Habitats) Regulations 2011 allowing for disturbance and actions authorised within the derogation in respect of otters at Clare Street & Abbeyhalfquarter (Derogation No.

DER-OTTER-2025-09). The actions which this derogation authorise shall be completed between the 28th March – 31st December 2025, inclusive. It is anticipated that another derogation will be necessary to allow for the proposed works to be undertaken at a later date.

I highlight that the derogation licence is currently live and in date at the time of my assessment and recommendation.

7.2.5. **Conditions.**

With the implementation of all mitigation and monitoring measures as detailed in the CEMP and Chapter 21 Schedule of Environmental Commitments set out in the EIAR, the individual chapters of the EIAR, the mitigation set out in chapter 7.0 of the NIS I am of the opinion that all of the recommended requirements set out in the observations from IFI, An Taisce and Uisce Eireann can be adequately dealt with by way of condition. The mitigation includes that a suitably qualified and experienced Ecological Clerk of Works (ECoW) will be employed during the construction phase of the project to ensure all environmental impact prevention controls relevant to construction activities occurring at the time are in place. The ECoW will liaise with the Local Authority, the IFI and NPWS. The ECoW will be responsible for regular inspection and monitoring through all phases of construction/operation and provide ecological advice as required. Timing restrictions shall be abided by. See also AA Template Form 3 attached as appendix to this report.

I note the bespoke mitigation and monitoring measures included in the EIAR and NIS e.g. timing restrictions for angling shall be agreed with IFI and Otter Specific Mitigation Measures.

The applicant has agreed to carry out all of the recommendations of the IFI and the NPWS, the recommendations of TII are also agreed. The mitigation proposed by way of the CEMP, the EIAR and NIS is bespoke and robust and covers all of the recommendations set out in the observations by TII, An Taisce and Uisce Eireann.

Overall positive impacts on flood risk are to be expected from this flood relief scheme, as the overall objective of the project is to protect the community from flooding. The Ballina Flood Relief Scheme will benefit residential and commercial properties, public open spaces, aquatic and terrestrial biodiversity and the integrity of archaeology and Protected Structures. I recommend that a condition pertaining to archaeological and cultural heritage protection be attached to any grant of permission in the interests of conserving the archaeological heritage of the site and secure the preservation (in situ or by record) and protection of any archaeological remains that may exist within the site.

I recommend that a condition be attached with regard to insuring provision of the pedestrian access from the Moyvale estate to the N59, regard being had to the response from the applicant and the commitment expressed, to accede to the request.

As stated in my environmental assessment of ‘risks of major accidents or disasters’ chapter 21 of the EIAR, the applicant’s response to the resident’s association observation highlights that the current proposals do not represent the final design/treatment for this area. Subject to obtaining planning consent from the Board, Mayo County Council will embark on Stage 3 – detailed design. This will allow for detailing of the surface treatments to be applied to the proposed 'open’ stream section, including the design of a mix of gradients, shrub/tree planting and discreet temporary fencing – pending the maturing of planted areas. Further consultation will be undertaken with the residents as part of the detailed design to address their safety concerns. I consider this response is acceptable and the matter can be resolved by way of condition. It is fundamental that Mayo County Council, would carry out the grading and landscaping works to the Bunree stream along the boundary of the Moyvale Estate in a competent, safe and satisfactory manner.

7.2.6. **Conclusions**

Having regard to:

- The existing potential for flooding within the town of Ballina and its hinterland.
- The layout of existing infrastructure and the settlement pattern of Ballina as a designated Key Town (Tier 1), an important driver of economic activity, which provides functions of community and social facilities to a wide hinterland.
- The minimal interference with existing channels and the design, which emphasises creating more natural hydraulic channels where possible.

The proposed development is in accordance with national, regional and local development plan policy and other policies and would on balance have a positive impact on the sustainable development of the town of Ballina and the surrounding area.

8.0 The Likely Effects On The Environment (Environmental Impact Assessment)

I will address this under the following headings:

- **Environmental Impact Assessment (EIA)**
- **Water Framework Directive**
- **Appropriate Assessment**

Note: AA forms are attached in the appendix to this report.

Note: A specialist ecology report 'for adequateness of information for purpose of AA and EIA: Aquatic and Terrestrial Biodiversity', by Maeve Flynn Ecologist attached as Appendix 2 to this report. The conclusions of which is that the NIS provides a comprehensive assessment of the implications of the proposed BFRS in view of the CO's of the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228).

Environmental Impact Assessment (EIA)

8.1. Statutory Provisions

This section of the report deals with the potential environmental impacts of the proposed development during the construction and operation phases.

The design life of all elements of the proposed development are considered permanent. Consequently, a decommissioning phase is not assessed in the EIAR report.

The proposed development comprises 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 wall, 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 adjacent to Lough Conn and Lough Cullin SPA (004228) and Killala Bay/Moy Estuary SPA (004036).

Application for approval made under Section 175 (3) and Section 177AE of the Planning and Development Act, 2000 (local authority development requiring environmental impact assessment and appropriate assessment).

- Section 175 (3) states that where an EIAR has been prepared pursuant to subsection (1), the local authority shall apply to the Board for approval of the proposed development.
- Section 175 (1) states that where development belonging to a class of development, identified for the purposes of *section 176** , is proposed to be carried out—

  (* identifying development which may have significant effects on the environment…)

Therefore, the development is subject to EIA.

8.2. EIA Structure

This section of the report comprises the environmental impact assessment of the proposed development in accordance with the Planning and Development Act 2000 (as amended) and the associated Regulations, which incorporate the European Directives on environmental impact assessment (Directive 2011/92/EU as amended by 2014/52/EU). Section 171 of the Planning and Development Act, 2000 (as amended) defines EIA as:

a. Consisting of the preparation of an EIAR by the applicant, the carrying out of consultations, the examination of the EIAR and relevant supplementary information by the Board, the reasoned conclusions of the Board and the integration of the reasoned conclusion into the decision of the Board, and

b. Includes an examination, analysis and evaluation, by the Board, that identifies, describes and assesses the likely direct and indirect significant effects of the proposed development on defined environmental parameters and the interaction of these factors, and which includes significant effects arising from the vulnerability of the project to risks of major accidents and/or disasters.

Article 94 of the Planning and Development Regulations, 2001 and associated Schedule 6 set out requirements on the contents of an EIAR.

This report is therefore divided into two sections. The first section assesses compliance with the requirements of Article 94 and Schedule 6 of the Regulations. The second section provides an examination, analysis and evaluation of the development and an assessment of the likely direct and indirect significant effects of it on the following defined environmental parameters, having regard to the EIAR and relevant supplementary information:

- Population,
- Human Health,
- Aquatic Biodiversity, with particular attention to species and habitats protected under the Habitats Directive and the Birds Directive,
- Terrestrial Biodiversity,
- Land, Soil, Geology and Hydrogeology,
- Water,
- Air Quality,
- Climate,
- Noise and Vibration,
- Cultural Heritage,
- Landscape and Visual
- Interaction & Cumulative Effects
- The vulnerability of the proposed development to risks of major accidents and/or disasters.

It also provides a reasoned conclusion and allows for integration of the reasoned conclusions into the Boards decision, should they agree with the recommendation made.

8.3. Issues Raised in Respect of EIA

Issues raised in respect of EIA by Prescribed Bodies and Third-Party Observers are discussed in detail in Section 6.0 of this report and include the following:

- Impact on aquatic and terrestrial Biodiversity, (inter-alia, Lighting Design, Instream Works, Bridge Works, potential scouring impacts - Disturbance to sea lamprey and their habitats, Disturbance to Otter.)
- Landscape and Visual Effects,
- Population and Human Health, (Connectivity & Accessibility)

The issues raised will be assessed under the relevant sections in this report.

8.4. Compliance with the Requirements of Article 94 and Schedule 6 of the Regulations 2001

The applicants EIAR comprises of the EIAR (Main Text Vol B) including Chapters 1 – 22. A stand-alone Non-Technical Summary (NTS) Vol A and a standalone EIAR Appendices - Vol C, including inter-alia, Photomontages (Viewpoints 1 – 9), Bat surveys, Bird Surveys, Invasive species Plan, Otter surveys & Holt Design, Water Framework Directive Assessment, traffic surveys, junction modelling, noise calibration certificates, Heritage plates, photographs, stakeholder consultation etc.

I note also the inclusion of a Planning Report, a Maritime Area Consent (MAC) (No. MAC20230008), Otter Derogation Licence (No. DER-OTTER-2025-09), Section 50 consent from the Office of Public Works (OPW) and Landowners Letters of consent.

I assess below compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended).

Table 1 Article 94 (a) Information to be contained in an EIAR (Schedule 6, paragraph 1)
A description of the proposed development comprising information on the site, design, size and other relevant features of the proposed development (including the additional information referred to under section 94(b))
A description of the proposed development, site location and setting (including maps), scheme design and objectives is contained in Chapter 5 - Paragraph 5.1 – 5.4. The chapter includes details on flood walls, embankments, public open space, surface water drainage, bridge works, diversion of utilities, amenity access to the Moy, lighting design, construction compounds and instream works. Paragraph 5.3.1 sets out construction hours Chapters 7 & 8 set out Population and Human Health. Biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC is set out in Chapter 9: Aquatic Biodiversity and Chapter 10: Terrestrial Biodiversity.

Land, soil, water, air and climate is dealt with in Chapter 11: Land, Soil, Geology and Hydrogeology, Chapter 12: Water, Chapter 13: Air Quality, Chapter 14: Climate, Chapter 15: Noise & Vibration. Chapters 11 – 15 set out an estimate, by type and quantity, of expected residues and emissions (including water, air and soil pollution, noise, vibration, light, heat and radiation) resulting from the operation of the proposed development.
Material assets, cultural heritage and the landscape is set out under Chapter 16: Material Assets: Waste and Utilities, Chapter 17: Material Assets: Land and Properties, Chapter 18: Cultural Heritage, Chapter 19: Landscape & Visual.
The interaction between the factors is set out in Chapter 20: Interactions and Cumulative Effects.
Chapter 21: Risk of Major Accidents & Disasters Assessment sets out the expected effects deriving from the vulnerability of the project to risks of major accidents and/or disasters that are relevant to the project. Chapter 22 sets out a schedule of Environmental Commitments.
The EIAR is supported by the development of a Construction Environment Management Plan (CEMP). The CEMP provides detail on the mitigation and monitoring measures as identified in the EIAR that will be implemented during the construction phase for the protection of the environment and human health. The CEMP will be implemented by the appointed contractor. The CEMP will be updated to address the requirements of any relevant planning conditions, including any additional mitigation measures.
Chapter 5: Project Description sets out the construction programme and phasing. Construction activities are envisaged to take place during a single construction campaign lasting 36 months but could extend beyond this should unforeseen circumstances arise. There will be restrictions on the construction programme to accommodate angling activities and fishing rights on the River Moy with construction activities to take place outside of angling season in some areas. There are also restrictions because of fish spawning season.
The description is adequate to enable decision making.

A description of the likely significant effects on the environment of the proposed development (including the additional information referred to under section 94(b).

Chapter 6 to Chapter 19 of the EIAR describes the significant effects on the environment as follows;

Table 2 – Summary Table of Adequacy of Information on Likely Significant Impacts

Technical Chapter	Description of Likely Significant Impacts	Adequacy of Info (Y/N)
Chapter 4 Alternatives Considered	The assessment of alternatives is considered under the following headings: 'Do Nothing' Scenario - section 4.1 'Do Minimum' - section 4.2 'Alternative Design' - section 4.3 'Alternative Locations' - section 4.4 'Alternative Layouts' - section 4.5	Y
Chapter 6 Traffic and Transportation	'Significant Effects' – section 6.2 'Residual Effects' – section 6.4	Y
Chapter 7 Population	'Significant Effects and Mitigation Measures' – section 7.2 Residual Effects - section 7.2	Y
Chapter 8 Human Health	'Significant Effects and Mitigation Measures' – section 8.2 Residual Effects - section 8.2	Y
Chapter 9 Aquatic Biodiversity	'Significant Effects and Mitigation Measures' – section 9.3 Residual Effects - section 9.4	Y

Chapter 10 Terrestrial Biodiversity	'Significant Effects' – section 10.3 'Mitigation Measures' – section 10.4 'Residual Effects' - section 10.5	Y
Chapter 11 Land, Soil, Geology & Hydrogeology	'Significant Effects and Mitigation Measures' – section 11.2 'Residual Effects' - section 11.3	Y
Chapter 12 Water	'Mitigation Measures' – section 12.2 'Residual Effects' - section 12.3	Y
Chapter 13 Air Quality	'Significant Effects and Mitigation Measures' – section 13.2 'Residual Effects' - section 13.3	Y
Chapter 14 Climate	'Significant Effects' – section 14.3 'Residual Effects' - section 14.4	Y
Chapter 15 Noise & Vibration	'Significant Effects and Mitigation Measures' – section 15.3 'Residual Effects' - section 15.4	Y
Chapter 16 Material Assets (Waste & Utilities)	'Significant Effects and Mitigation Measures' – section 16.3 'Residual Effects' - section 16.4	Y
Chapter 17 Material Assets: Land and Properties	'Significant Effects and Mitigation Measures' – section 17.3 'Residual Effects' - section 17.4	Y
Chapter 18 Cultural Heritage	'Significant Effects' – section 18.2 'Residual Effects' - section 18.3	Y
Chapter 19 Landscape & Visual	'Significant Effects and Mitigation Measures' – section 19.3 'Residual Effects' - section 19.4	Y
Chapter 20 Interactions and Cumulative Effects	'Summary of Cumulative Effects' – section 20.1	Y
Chapter 21 Risks of Major Accidents and / or Disasters	'Hazard Risks and Mitigation' section 21.2 'Residual Effects' – section 21.3	Y

Interactions and Cumulative Effects are considered in EIAR Chapter 20, and a Schedule of Environmental Commitments is presented in EIAR Chapter 22. An assessment of the likely significant effects of the development is carried out for each of the technical chapters of the EIAR. The EIAR is supported by the development of a Construction Environment Management Plan (CEMP). The CEMP provides detail on the mitigation and monitoring measures as identified in the EIAR that will be implemented during the construction phase for the protection of the environment and human health. I am satisfied that the assessment of significant effects is comprehensive and robust and enables robust decision making.

A description of the features, if any, of the proposed development and the measures, if any, envisaged to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment of the development (including the additional information referred to under section 94(b).

With respect to a description of the physical characteristics of the whole proposed development and the land-use requirements during the construction and operational phases; as set out above, Chapter 5 sets out 'Project Description' and Chapter 17 sets out 'Material Assets: Land and Properties'.

A description of the main characteristics of the production processes, for instance, nature and

quantity of the materials used is set out in Chapter 12 water, Chapter 13 Air Quality, Chapter 15 Noise and Vibration and Chapter 16: Material Assets: Waste and Utilities.
A description of the aspects of the environment likely to be significantly affected by the proposed development, including in particular:
– human beings, fauna and flora,
– soil, water, air, climatic factors and the landscape,
– material assets, including the architectural and archaeological heritage, and the cultural heritage,
– the inter-relationship between the above factors;
Is set out in Chapters 5 – 21 and summarised in Chapter 22: Schedule of Environmental Commitments.
A description of the likely significant effects (including direct, indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative) of the proposed development on the environment is set out in Chapters 5 – 21.

A description of the reasonable alternatives studied by the person or persons who prepared the EIAR, which are relevant to the proposed development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed development on the environment (including the additional information referred to under section 94(b).

The Assessment of Alternatives was analysed in Chapter 4 of the EIAR. The EIAR describes those reasonable alternatives that have been studied. The Alternatives considered related to The Do-Nothing Alternative, Do Minimum, Alternative Design, Alternative Locations, and Alternative Layouts.

It concluded that the Do-Nothing Alternative was considered but discounted on the basis that the 'Do Nothing' scenario is an inappropriate alternative as it could mean the failure of the existing levels of protection and thus does not meet current or future acceptable levels of flood protection and is thus not a sustainable alternative.

Options were selected based on achieving the Target SoP for protecting the areas at flood risk within the community of Ballina i.e., 1% of the AEP for fluvial areas and 0.5% of the AEP for coastal areas option development. Potential options for inclusion in the Proposed Scheme are provided in Table 4-2 of the EIAR – Potential Design Options. Five Options were considered. A Multi-Criteria Analysis (MCA) and Cost-Benefit Analysis (CBA), which considers technical, social, economic and environmental criteria was used to compare the options.
The Knockanelo Stream is to be progressed separately following consideration of assessment of alternatives. Nature-based Catchment Management solutions (NbCM) were considered.
The adaptability of the Proposed Scheme to predicted climate change scenarios has been assessed as part of the hydrology report, options report and Climate Change Action Plan (CCAP).

Construction compound locations were strategically identified across the Proposed Scheme based on proximity to the proposed works. Priority was given to disturbed areas owned by MCC. Private lands on which access is likely to be granted were also considered. The locations (Figure 5-2 in Chapter 5: Project Description) are as follows:
• Ballina Diaries site and adjacent boat club site.
• MCC lands on Barrett Street.
• Sites owned by Bourke Builders located on:
– Ridgepool Road.
– Behy Road.
– Bonniconlon Road
Further details regarding the proposed compound locations are provided in Chapter 5: Project Description.

Alternative layouts for each of the scheme's sections evolved over a design process that included input from environmental experts, as well as contributions from stakeholders and feedback from public consultations.

Options were considered for the undertaking of the works on both sides of the river including the use of cofferdams (sheet piling, sandbags) as well as the installation of causeways or ramp to allow access to the construction areas. Based on initial noise and vibration assessments undertaken as part of the EIAR, it was concluded that sheet piling will result in unacceptable noise and vibration impacts on residents. Piling was also rejected due to the likely presence of shallow bedrock. In light of the removal of sheet piling from the design, the requirement for a hydroacoustic assessment for the Proposed Scheme was removed.

A ramp is to be constructed along the banks of the river from the IFI building in order to gain access to the area in front of the warehouse and apartments located immediately upstream of the IFI building. This will allow for flood walls to be constructed in this area and connect to the existing defences at the Ballina Arts Centre.

I consider that the EIAR contains a description of reasonable alternatives, which is thorough, and which includes decisions being made on a strategic and specific site selection process. I consider that the legislative requirement to provide information relating to the reasonable alternatives which were considered, has been met.

Article 94(b) Additional information, relevant to the specific characteristics of the development and to the environmental features likely to be affected (Schedule 6, Paragraph 2).

A description of the baseline environment and likely evolution in the absence of the development.

A description of the location is contained within Chapter 5.
A description of the baseline environment and evolution of the environment in the absence of the proposed scheme is contained in each technical chapter of the EIAR.

A description of the forecasting methods or evidence used to identify and assess the significant effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information, and the main uncertainties involved.

The methodology employed in carrying out the EIA, including the forecasting methods is set out in each of the individual chapters assessing the environmental effects. The applicant has indicated in the different chapters of where difficulties have been encountered (technical or otherwise) in compiling the information to carry out EIA.
Chapter 1 Introduction also sets out Limitations it states: 'Limitations within the EIA process for the Proposed Scheme includes the following:
• Ballina Town is in the process of drafting a public realm strategy and the Ballina Town Public Realm Works are likely to overlap the Ballina FRS area of works. The flood relief measures along Cathedral Road have incorporated feedback from the MCC architectural team to facilitate the development of the Ballina Town Public Realm Works at a later date. However, the EIAR has limited ability to consider incorporation within other sections of the FRS, such as Ridgepool Road and Bachelors Walk due to the public realm works early stage of design and development.
• Aquatic archaeology surveys were carried out on the River Moy; however, survey accessibility was limited due to the high and fast flows present in the channel. In consultation with the Inland Fisheries and agreed with the National Monuments Service (NMS), an abridged survey area was selected to avoid areas too dangerous to survey'.
I am satisfied that forecasting methods are adequate.

A description of the expected significant adverse effects on the environment of the proposed development deriving from its vulnerability to risks of major accidents and/or disasters which are relevant to it.

This issue is specifically dealt with in Chapter 21 Risk of Major Accidents or Disasters.
No major accidents or disasters are envisaged. Damage to aquatic biodiversity. Damage to critical utilities, property. Injury to public. Crane collapse and damage resulting in injury or death to site workers / general public. Damage to existing structures/ infrastructure/ utilities (e.g. overhead lines) have all been considered and the risk evaluation considered very unlikely and the risk score subject to mitigation is considered 'Low'.
It is noted that the proposed development is not subject to the requirements of the COMAH Regulations. As it lays outside of 200m consultation distance of European Refreshments t/a Ballina Beverages is an upper tier COMAH establishment which stores several dangerous substances. It is 350m distant.
All risks are reasonable and are assessed in my report.

Article 94 (c) A summary of the information in non-technical language.

This information has been submitted as a separate standalone document entitled Non-Technical Summary (NTS). I have read this document, and I am satisfied that the document is concise and comprehensive and is written in a language that is easily understood by a lay member of the public.

Article 94 (d) Sources used for the description and the assessments used in the report

The sources used to inform the description, and the assessment of the potential environmental impact are set out both within the specific chapter and they are also listed in references throughout Volume C 'Technical Appendices' to Environmental Impact Assessment Report. I consider the sources relied upon are generally appropriate and sufficient.

Article 94 (e) A list of the experts who contributed to the preparation of the report

Details of the study team as well as their respective inputs to the EIAR is presented in Chapter 1, Section 1.7 Structure of the EIAR and Section 1.8 Format and Structure of the EIAR. Table 1-2 provides a breakdown of the contents of the EIAR volumes and the organisations that have contributed to the EIAR. The list of the EIAR contributors outlining their competence and experience, including relevant qualifications is provided in Table 1-3. In addition, contributors have had regard to other relevant discipline-specific guidelines, these are noted in individual chapters of the EIAR. The EIAR is supported by a Construction Environment Management Plan (CEMP). I am satisfied that the EIAR & CEMP has been prepared by competent experts within the various chapters of the EIAR.

Table 3 – Summary Table of Adequacy of Forecasting Methods Used

Description of Forecasting Method Used

The emission of pollutants, the creation of nuisances and the elimination of waste, and a description of the forecasting methods used to assess the effects on the environment is assessed within each chapter and in particular Chapter 16 Material Assets: Waste and Utilities.

Adequacy/Omissions/Difficulties

Omissions/Difficulties

An indication of any difficulties (technical deficiencies or lack of know-how) encountered by the developer in compiling the required information is provided in Chapters 5 – 21.
As stated in full above, limitations are set out in section 1.6 of Chapter 1.
I note also that:

Chapter 7:

- Data from the most recent CSO census, undertaken in 2022, is being published on an ongoing basis. Much of the more detailed, disaggregated data has not yet been published. As such, some data referenced in this chapter dates from the 2016 Census.

Chapter 10:

- Bat surveys were not undertaken during the winter months and therefore, confirming use of certain hibernation roost features by bats in winter was not possible, however,

the EIAR states that: ‘given the lack of suitable structures for such purposes this was not regarded to be a significant limitation. Once incorporated into the assessment these limitations are deemed to not affect the outcome or certainty of the assessment’.

Chapter 18:

- All available datasets for desk-based baseline assessment of the Cultural Heritage (terrestrial) environment were accessible. During field survey access was restricted to the rear of the Ballina Arts Centre (Barrett Street study area) and at lands at the junction of Creggs Road and Quay Road (Quignamanger study area). No difficulties were encountered elsewhere.
- Underwater archaeological dive surveys at areas of proposed in-river works along the River Moy were carried out on the riverbed from the weir to immediately downstream of Upper Bridge The channel along the eastern side of the in-river survey area was too swift-moving to permit safe diving.

Adequacy of Forecasting

I have reviewed the adequacy of forecasting of individual chapters which feed into the EIAR. I am satisfied that the forecasting carried out is adequate.

8.5. Consultations

The application has been submitted in accordance with the requirements of the Planning and Development Act 2000 (as amended) and the Planning and Development Regulations 2001 (as amended) in respect of public notices.

Consultations are described in Chapter 3 of the EIAR. The applicant, Mayo County Council consulted with Prescribed Bodies and the Community.

Public Consultation Day (PCD) events were held on the 23rd September 2020 and on the 30th March 2023. These have been supplemented by project newsletters and a project website. Section 3.2 of the EIAR states: ‘To aid the consultation process a stand-alone website was set up at https://www.floodinfo.ie/frs/en/ballina/home/. This website has allowed the public to access up-to-date information on the consultation process, the Proposed Scheme design and the overall project programme. It has maintained a resource allowing submissions to be made online as well as providing a postal address for anybody who wishes to submit a hard copy at any time’.

I note that the documentation on file indicates that there has been general support for the Proposed Scheme in the consultation process.

Four stakeholder consultations were completed between July 2020 and February 2023. Stakeholders of the Proposed Scheme were contacted in writing or via email. These consultations were as follows:

- 08-July-2020: Introduce the Proposed Scheme (Stage 1 Programme) and request feedback on Stage 1, Constraints Study and Screening for Appropriate Assessment.
- 18-September-2020: Request input on the existing environmental constraints identified and inform stakeholders of the Virtual and PCD 1.
- 21-December-2022: Provide summary of options considered and introduced preferred option.
- 28-February-2023: Provide scoping report for review and inform stakeholders of the upcoming Virtual and PCD 2.

Stakeholder meetings took place with the Heritage Council, Inland Fisheries Ireland, National Parks and Wildlife Service and the Maritime Area Regulatory Authority. The items raised were focussed largely on environmental issues and these are outlined in Chapter 3: Consultation of the EIAR and addressed throughout the EIAR as appropriate.

Consultation was carried out with the following bodies (and is discussed separately within each chapter of the EIAR):

- Inland Fisheries Ireland (IFI)
- National Parks and Wildlife Service (NPWS)
- The OPW
- Maritime Area Regulatory Authority (MARA)
- Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media
- Geological Survey of Ireland (GSI)
- Coillte
- Transport Infrastructure Ireland (TII)
- Uisce Eireann / Irish water
- The Heritage Council
- The Heritage Officer (MCC)
- Gas Network Ireland
- Irish Rail
- Failte Ireland
- The Heritage Council
- Department of Housing, Local Government and Heritage (DHLGH)
- The Heritage Council
- Siro
- Three Ireland
- Virgin Media

Observations were received from the following prescribed bodies, they are summarised in detail in section 6.2 of the Planning report:

- An Taisce
- TII
- Uisce Eireann (UE)/ Irish water

An observation was also received from Moyvale Residents Association, summarised in detail in section 6.3 of the planning report.

I am satisfied, therefore, that appropriate consultations have been carried out and that third parties have had the opportunity to comment on the proposals in advance of decision making.

Conclusion on compliance with the requirements of Article 94 and Schedule 6 of the Planning and Development Regulations 2001(as amended)

Having regard to the foregoing, I am satisfied that the information contained in the EIAR, and supplementary information provided by the developer is sufficient to comply with Article 94 of the Planning and Development Regulations, 2001(as amended).

9.0 Assessment of Likely Significant Effects

This section of the report sets out an assessment of the likely environmental effects of the proposed development under the following headings, as set out Section 171A of the Planning and Development Act 2000, as amended:

- Traffic & Transportation
- Population
- Human Health
- Biodiversity
- Land, Soil, Geology and Hydrogeology
- Water
- Air Quality
- Climate
- Noise & Vibrations
- Material Assets: Waste/ Utilities

- Material Assets: Land and Property
- Archaeology and Cultural Heritage and
- Landscape & Visual.

Note: Chapter 22 ‘Schedule of Environmental Commitments’ of the EIAR describes the environmental effects that are likely to arise during the construction and operation of the proposed development. Table 22-1 – Table 22-24 sets out the mitigation measures required to alleviate identified effects of:

- Traffic and Transport
- Human health
- Aquatic Biodiversity
- Terrestrial Biodiversity
- Land, soil, Geology and Hydrogeology
- Water
- Air Quality
- Climate
- Noise and Vibration
- Material Assets: Waste and Utilities
- Material Assets: Land and Properties
- Cultural Heritage
- Landscape and Visual

Specific effects with respect to matters of likely significant effects, mitigation and residual effects for air quality, noise, traffic, visual impact etc. are also dealt with in the respective assessments in the EIAR.

In accordance with section 171A of the Act, which defines EIA, this assessment includes an examination, analysis and evaluation of the application documents, including the EIAR and submissions received and identifies, describes and assesses the likely direct and indirect significant effects (including cumulative effects) of the

development on these environmental parameters and the interaction of these. Each topic section is therefore structured around the following headings:

- Issues raised.
- Examination of the EIAR.
- Potential Effects
- Evaluation and Assessment: Direct and Indirect effects.
- Conclusion.

9.1. Traffic and Transport

Issues Raised

TII have made an observation, while they fully support the need to develop a Flood Relief Scheme (FRS) for Ballina, it is submitted that sour assessment and appropriate mitigation measures are required where relevant on four national road structures. Their submission is summarised in detail in section 6.2 of the planning assessment section of this report. The observation highlights agreement with MCC and TII Bridge Management Section and technical requirements. Moyvale Residents Association raise concern of loss of a direct access pathway (pedestrian RoW) to N59: inclusion of culvert would block right of way. Safety concern is raised of impact of existing vehicular traffic on Moyvale Estate and it is suggested that there is now an opportunity to include a raised pedestrian crossing from the pedestrian gate of Moyvale to the Downhill Inn and Knocknalyre.

Examination of the EIAR

Context and Potential Effects

Chapter 6 considers Traffic and Transport. The Traffic and Transport Assessment (TTA) conveys the likely significant effects that the Proposed Scheme will have on the traffic and transport environment of Ballina and surrounding areas. The assessment has focused on the likely significant effects of the Proposed Scheme during construction, as there will be imperceptible changes to the traffic and transport environment at post scheme implementation.

It is envisaged that the works will take approximately 36 months to complete, followed by a 15-month handover period. The activities planned for each of the areas within the Proposed Scheme are yet to be scheduled, but it is assumed that activities will run simultaneously within 3 to 4 different areas of the Proposed Scheme.

The temporary impact of additional vehicles on existing traffic volumes which includes excavation and demolition, importing materials, staff commuting, and associated traffic will only produce imperceptible or slight effects on the traffic and transport environment as it is projected that a maximum of only 60 additional vehicles will be present per day on each road assessed.

Junction assessments were carried out at key junctions that would be affected during the construction stage. Two main diversions (Clare Street Road closure, Barrett Street road closure) and a temporary lane closure (Emmett Street lane closure) were identified to have the most potential impact on junction capacity during works.

The EIAR determines that the effect from the closure of Clare Street and diversion through Bunree Road will be not be significant. There will be a slight impact on the junction of Tone/Tolan/O' Rahilly/Pearse Streets. There will be a significant effect on the performance of the junction of Bury/Kevin Barry/Teeling/Lord Edward Streets due to the extra flows entering the junction whereas usually they would bypass the junction and use Barrett Street. There will be a moderate effect on the junction of Tolan Street, Emmett Street and Ham Bridge due to the lane closure on Emmett Street.

The impact of diversions and closures was also assessed in terms of impact on Road capacity. Significant capacity effects are projected on Abbey Street due to the closure of Clare Street. As the construction phase has a fixed duration, any effects will be temporary and the effects with a significance level of slight or less have been concluded to be not significant in EIA terms.

I note that the applicant's response to issues raised indicates that scour assessment was undertaken at the bridge locations identified by TII. For the N26 bridge on the Tullyegan it is submitted that there would be little risk of increased scour risk following the completion of the flood relief works. For the other three bridge locations identified velocities in the existing and defended conditions were extracted from the hydraulic model for the 0.5% (Q200) flows. It is demonstrated in the EIAR that there

is very slight reduction in velocities between the existing and defended scenarios. As there are no changes to any of the other inputs to the scour assessment calculations it can therefore be concluded that there is no increase in scour risk at these locations from the proposed works.

It is agreed in the CEMP and shall be dealt with by way of condition should permission be forthcoming from An Coimisiún that proposals for structural repairs to existing walls which support national roads shall be agreed with Mayo County Council and TII Bridge Management Section prior to the commencement of any development on-site and works shall be undertaken in accordance with the details agreed therein – compliance with CEMP.

I note that it is agreed that a Technical Acceptance (TA) application will be made to TII in accordance with TII Publications DN-STR-03001 (Technical Acceptance of Roads Structures on Motorways and Other National Roads) for the proposed 2.0x1.25m box culvert proposed under the N59 national road, prior to any proposed works in the road. Following receipt of TA, any and all works will be undertaken in accordance with the details contained with the acceptance document.

The applicant's response to submissions confirms that there will be no loss of direct access to the N59, from the Green area. It is submitted that the existing pedestrian route from the Green area to the N59 can be maintained by including a short culverted section (subject to planning) over the open stream. This in turn can be incorporated into an improved Public Realm space/Green area. I agree that the proposed scheme, given its nature and temporary timeframe, will not have any significant impact on noise or pedestrian safety on the Moyvale Estate and or along the N59 and adjoining roads/thoroughfares. I also agree that it is not within the remit of the Flood Relief Scheme to address issues of pedestrian safety along the N59. The applicant has indicated that connectivity will be maintained and this I recommend shall be subject to condition should permission be forthcoming.

I note that interactions between Traffic and Transport and environmental factors such as population, human health, water, biodiversity, air quality and climate, material assets, noise and vibration, landscape and visual have been addressed in Chapter 20: Interactions and Cumulative Effects.

Overall, the temporary effect on the road network during the construction phase is imperceptible to slight which is not significant in EIA terms.

Mitigation

Mitigation measures are proposed in the CTMP (see volume III, Appendix 6.2: Construction Traffic Management Plan) and CEMP. The CTMP outlines the commitments and mitigation measures to be implemented during the construction phase of the proposed development. When the construction contractor is appointed, an updated CEMP and CTMP will be submitted to Mayo County Council, for approval, prior to the commencement of construction.

There are seven proposed diversion routes to ensure the flow of traffic is maintained in Ballina during the works. These diversions will occur on and near Bachelor's Walk, Barrett Street, Ridgepool road, Clare Street/Howley Street, Quignamanger/Greggs Road, near Bunree/Behy Road, and near Brusna (Glenree) River.

For Barrett Street works it is proposed that local vehicular traffic will be permitted to access the alternative temporary parking and the Ballina Manor Hotel resident carpark. Advance warning signage will be provided at Abbey Street (R294) and Cathedral Road, advising all HVs to route via Emmet Street to avoid an excess of traffic using Tolan Street and subsequently Bury Street. With regard to the Clare Street works, it is proposed that lane closures on Clare Street and Cathedral Road occur simultaneously, where possible. These diversions and all other diversions are explained in full in the Construction Traffic Management Plan (CTMP).

Temporary traffic management measures are proposed on Cathedral Road with the removal of on-street parking to accommodate the works. Similar measures will happen on Emmett Street. It is proposed that works on Emmett Street do not occur at the same time as those on Barrett Street.

With the implementation of the mitigation measures, there will be no significant negative construction phase impacts associated with the Proposed Scheme. There will be a positive residual effect on traffic and transport during the operational stage as the flood defences will prevent the flooding of roads including Emmett Street, Cathedral Road, Clare Street, Bachelors Walk, Barrett Street, Lower bridge, Downhill Road, Creggs Road and Quay Road.

Conclusion: Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 6 and all the associated documents and submissions on file in respect of Traffic. I have inspected the site and the surrounding area. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures, which respond to the concerns raised by observers and prescribed bodies.

In relation to the conclusions of the EIAR, I concur with same.

There will be significant effects arising from the Proposed Scheme during the construction phases, but these issues can be mitigated for through planning of construction periods, signage, diversion routes, and signalization as described in the CTMP. With the implementation of the mitigation measures, there will be no significant construction phase and operational and maintenance phase impacts associated with the Proposed Scheme. It is anticipated that the Proposed Scheme will have a positive residual effect on traffic and transport during the operational stage as the flood defences will prevent the flooding of roads including Emmett Street, Cathedral Road, Clare Street, Bachelors Walk, Barrett Street, Lower bridge, Downhill Road, Creggs Road and Quay Road.

Having regard to the examination of environmental information provided in respect of traffic, in particular in Chapter 6 of the EIAR it is considered that there is no potential for significant environmental effects on traffic.

9.2. Population and Human Health

Issues Raised

An Taisce and TII acknowledge the flood risk of this area, and the serious threat posed to homes and lives. Moyvale Residents Association have raised the matter of noise and pedestrian safety concerns.

Examination of the EIAR

Context

Chapter 7 ‘Population’ and Chapter 8 ‘Human Health’ of the EIAR considers Population and Human Health. Section 7.5 and section 8.5 sets out the mitigation measures required to alleviate identified effects of:

- Noise
- Air
- Traffic and Transport

The population study area has a stated population of 12,823 persons and comprises a total land area of 58.45 square kilometres. The Mayo County Development Plan 2022-2028 classifies Ballina as a key town. Ballina is the largest economic driver for the north of Mayo. The settlement of Ballina is located close to the Sligo border, and this results in the area serving as the main economic, commercial, social and educational centre for areas in the west of Sligo. Ballina is a significant urban centre in the wider region.

The River Moy is roughly 100 km in length flowing from the Ox Mountains in Co. Sligo to the sea north of Ballina. The towns of Foxford and Ballina are situated on the River Moy. The River Moy is famous for its salmon fishery and there are established fishing areas in the town. Salmon fishing is a key tourist attraction within Ballina.

The property types within the scheme area were identified through the An Post Geodirectory database. Residential developments are concentrated throughout all sections of the scheme area, with clusters of commercial properties mainly concentrated in the town. There are a total of 6,865 properties within the population study area. 5,787 no. of these properties are residential, 516 no. are commercial, 373 no. properties are listed as both commercial and residential, and 189 no. property uses are unknown. The EIAR identifies 228 residential buildings are at risk of flooding during the design flood event (1% Fluvial and 0.5% Tidal), and 69 commercial properties are at risk. This, it is stated, is an increase of the number of affected properties identified in the National Catchment-based Flood Risk Assessment and Management (CFRAM) Programme due to the completion of

updated Hydrological and Hydraulic Modelling for the scheme. Future climate change scenarios will also increase the number of properties at risk.

I note that there are five areas which are identified as susceptible to flooding in the town centre. The five areas are as follows:

- The right bank of the River Moy between the Salmon Weir and the Upper Bridge.
- On the right bank between the Upper and Lower Bridges, with the cathedral and tourist information office.
- Downstream of the Lower Bridge on the right bank, there is flooding of Clare Street.
- On the left bank around Bachelors Walk, Arbuckle Row, Rope Walk, Moy Court and Ashpool.
- On the left bank adjacent to the Salmon weir.

In addition to flood risk from the Moy a number of areas are at risk of flooding from tributaries of the River Moy including;

- Quignamanger Stream.
- Bunree/Behy Road Stream.
- Brusna River.
- Tullyegan Stream.
- Knockanelo Stream.

Potential Effects

Human Health & Safety

Measures to address such human health considerations will be mitigated through the implementation of a Contractor's Construction and Environmental Management Plan (CEMP) and will be subject to Regulations and the relevant Health and Safety codes.

The EIAR also deals with the potential effects on human health during the construction phase, including the more specific topics of traffic, air and noise.

Construction of the Proposed Scheme has the potential to have safety implications for the general public and workforces. The Proposed Scheme will necessitate the presence of construction sites within the town of Ballina, and travel on the local public road network to and from these zones. Construction sites and the machinery used on them pose a potential health and safety hazard to construction workers if site rules are not properly implemented. Temporary disruptions, road closures and diversions will be managed through a CTMP.

The level of disturbance and impacts are predicted to be commensurate with the normal disturbance associated with the construction industry, where site works are efficiently and properly managed having regard to neighbouring activities.

It is noted that the risk of health and safety-related accidents is unlikely during the construction phase of the proposed development, and no significant impacts on population and human health are identified. With best-practice health and safety procedures in place, construction activities will have a **low, minor adverse (not significant) short-term** impact on health and safety.

Population

It is estimated that construction works will take approximately 36 months to complete, and there will be approx. 20 - 30 people employed during construction activity.

The construction phase will impact upon the residential amenities in Ballina due to road closures, access disruptions, possible dust emissions (Air) and noise. Local businesses within the population study area will continue to operate normally, notwithstanding that access and noise impacts may discourage activity. The construction works would involve temporary restrictions on traffic movements and car parking, only.

In addition to direct employment on-site, there will be off-site employment and economic activity associated with the supply of construction materials and the provision of services such as leisure centres and accommodation, professional firms supplying financial, architectural, engineering, legal and other professional services to the project.

During construction:

During construction, there will be an increase in construction works in Ballina, which can have a positive effect on the local businesses and the local population.

The population of Ballina will witness disruptions to their daily lives during this temporary construction period due to traffic, air, noise, and visual amenity. These impacts shall extend over the 36-month period of the construction phase.

The residual impact of the construction phase is predicted to be **negative, slight and short-term.**

During the Operational Phase:

This Proposed Scheme will provide flood protection to 187 homes and 54 businesses in Ballina. As a result of the Proposed Scheme, the Ballina area may become more attractive for residential and business purposes. The Proposed Scheme will also protect existing amenities, recreation facilities and tourism destinations within Ballina, promoting economic activity and economic growth in the town.

The residual impact of the operational phase is predicted to be **positive,** the significance of the effect **moderate** and the effects **long term.**

Inspector's Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated Chapter 7 and Chapter 8 of the EIAR and all of the associated documentation and submissions on file in respect of population and human health. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures to reduce any potential impacts. Air and noise emissions, emissions to water and from traffic associated with day to day activities will be addressed later within this assessment

In relation to the conclusions as set out in the EIAR, I concur with the conclusions, in that the proposed flood relief works would not adversely impacted on human health or population and would resulted in overall beneficial impact, in terms of supporting employment, noting that the works will employ up to 20 - 30 no. persons on site. Also, the local community will benefit from flood protection to 96 no. commercial and business premises within Ballina and the surrounding area. This will safeguard their

existing operations and facilitate the growth of existing businesses. The Proposed Scheme will also promote new businesses within Ballina, creating future employment and a positive impact on the local economy. Improved employment and income have positive effects associated with physical health. As such, I conclude that, overall, the development would have a **positive impact** in terms of supporting the local community and benefit local employment, although I would not define this impact as 'significant'.

Conclusion: Evaluation and Assessment: Direct and Indirect Effects

Having regard to the examination of environmental information provided in respect of population and human health, in particular in Chapter 7 and Chapter 8 of the EIAR it is considered that there are no potential for significant environmental effects on population and human health.

9.3. Aquatic Biodiversity

Issues Raised

Concerns are raised by An Taisce with respect to:

- the designation of River Moy as Salmonid River and presence of salmon in the Zone of Influence of the scheme.
- adverse impact upon the habitat of salmonids and sea lamprey.
- Importance of Consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS)

Examination of the EIAR

Context

Chapter 9 considers Aquatic Biodiversity. I note that Chapter 10 deals with Terrestrial Biodiversity, Chapter 11 – Land, Soils, Geology and Hydrogeology and Chapter 12 deals with Water, each of these chapters are assessed separately, in the subsequent sections of this report.

The Proposed Scheme spans the Ballina section of the River Moy and upper River Moy Estuary, plus four separate tributaries of the River Moy in the vicinity of Ballina:

Tullyegan Stream, Quignamanger Stream, Bunree Stream and the Brusna / Glenree River.

The River Moy and its major tributaries upstream of Ballina comprise a catchment area of approximately 2,045 km2. It is one of the most important salmon catchments in Ireland, famous for the Ridgepool and Cathedral Beat within Ballina. Unlike many large rivers in Ireland, the Moy consistently exceeds its Conservation Limit (CL) for salmon.

The River Moy within the study area for the Proposed Scheme is covered by the following conservation designations:

- River Moy Special Area of Conservation (SAC 002298)
- Killala Bay/Moy Estuary Special Area of Conservation (SAC 000458)
- Killala Bay/Moy Estuary Special Protection Area (SPA 004036)
- River Moy Salmonid Water (under S.I. No. 293 of 1988)

The EIAR sets out that the downstream Zone of Influence (ZoI) was considered using expert judgement and taking into account existing watercourse morphology, size and flow types in terms of potential for downstream export of pollutants (primarily during construction phase). No fixed distance was applied for the downstream ZoI because site-specific conditions determine the potential for pollutant generation, downstream transport and any consequent effects. The upstream ZoI was included in relation of fish migration (where relevant) through the proposed works areas. This was defined as all accessible fluvial habitat upstream of the construction proposed on each watercourse in consideration of salmonid, lamprey and eel migration where this currently or potentially exists.

Overall, the aquatic habitats of the River Moy were investigated in detail covering the 800 m stretch within Ballina from the Salmon Weir to the pontoon on Bachelors Walk. This covers the reach that is subject to direct in-channel and bankside construction measures (e.g., flood defence walls). In terms of indirect (downstream) effects, the Moy was observed over a total of 3 km between the Salmon Weir and the River Moy Harbour to the point at which Quignamanger Stream confluences beneath the estuarine River Moy.

Distribution of aquatic species / habitats and habitat quality of the River Moy and the Moy estuary were derived from a desk study which considered the entire catchment, primarily in relation to migrating fish species (salmonids, lamprey, eel) and their spawning /nursery and holding habitats. Tributaries (Tullyegan, Bunree, Quignamanger, Brusna/Glenree) were investigated at locations along their length focusing on areas that were: (i) accessible, e.g., upstream and downstream of existing culverts that require replacement and/or (ii) where measures such as walls, embankments and instream works are proposed. Tributaries were generally subject to walkover (subject to accessibility) between the most upstream location of proposed measures and the Moy confluence.

A thorough desk-based search of available baseline information was undertaken to assist in the identification of key aquatic values and sensitivities. Field studies were conducted on 21-22 July 2021; 11-12 July 2022 and 11-12 September 2023 covering reaches of watercourse where proposed works are proposed. Table 9-1 Ecological Evaluation Criteria – Watercourses, of the EIAR sets out survey dates, locations and survey types for the Moy and its affected tributaries.

The main channel of the Moy is a designated Salmonid Water under the salmonid regulations. Of relevance to the Aquatic Biodiversity chapter are the QI Annex II species salmon, sea lamprey and brook lamprey. The QI species white-clawed crayfish was not present in the study area but was included in the assessment as a precaution. Marine QI habitats Estuaries [Habitat 1130] and Mudflats and sandflats not covered by seawater at low tide [Habitat 1140] occur in the downstream zone of influence (ZoI).

The reach of the River Moy and Moy Estuary within the Proposed Scheme study area is primarily a migration route for salmonids (salmon, sea trout) and migratory lampreys (sea and river lamprey). There is no significant salmonid spawning or nursery water on the River Moy within Ballina because of its tidal nature.

Sea lamprey, however, are reported to undergo nest building activity (and presumably spawning) in the Ridgepool on occasion. There are also good patches of lamprey nursery habitat at the river margins downstream of the Lower Bridge, and two discrete patches of lamprey nursery habitat present in the Ridgepool. Juvenile sea lamprey (ammocoetes) have been recorded in these locations.

The Brusna/Glenree is a significant salmonid spawning and nursery tributary of the Moy Estuary, confluencing downstream of Ballina. A series of natural rock falls and historical modifications near the Moy confluence apparently preclude migratory lampreys from the Brusna / Glenree catchment. The river within the study reach is fast flowing and while it is good for salmonids, brook lampreys were not present.

Catchment wide electrofishing has shown that despite good potential spawning and nursery habitat in the lower reaches, the Brusna/Glenree system is below expected carrying capacity for salmon, with lower than optimal densities of juvenile fish.

The remaining three streams are of much lower quality, being highly modified by existing urbanisation, extensive culverting and drainage. The Tullyegan is a small trout (and potential brook lamprey) stream that has been subjected to arterial drainage, with deepening and straightening through the relevant lower urban reach. The Quignamanger and Bunree are both extensively culverted through the Ballina urban area as far as the Moy main channel. These latter two streams have low fisheries significance, although the Quignamanger was observed to be visited on occasion by a few juvenile salmonids in the lower reaches, likely to be smoults foraging up from the main channel since the stream itself has no salmonid spawning or nursery habitat. The Quignamanger is of interest in that it is fed by highly calcareous spring waters originating upstream of the existing culverts (and upstream of the Proposed Scheme). In areas where there is turbulence, small patches of calcareous deposit have formed which pertain to Annex I Priority Habitat 7220 (hereafter *7220): Petrifying springs with tufa formation (Cratoneurion). One such area is present just upstream of proposed culvert works near the Moy confluence.

Table 9-8 of the EIAR sets out the water dependent habitats and species that are relevant to this chapter, i.e., Qualifying Interests of European sites and fishes of salmonid waters. Note that this table only includes the strictly water dependent habitats/species relevant to the aquatic ecology chapter. Mammals (otter, harbour seal) and terrestrial or riparian based habitats (e.g., alluvial vegetation habitats) are covered in Chapter 10: Terrestrial Ecology.

I note that the both Biodiversity Chapters of the EIAR assesses sites designated for nature conservation, habitats and species, determining ecologically significant effects on key ecological receptors and should be read in conjunction with ‘Template

2: Standard AA Screening Determination and template test for likely significant effects' and 'Template 3: Standard AA template and AA determination', which form part of the overall assessment of the proposed project and are attached in Appendix 1 of the planning report. It is noted that the NIS is solely concerned with ascertaining whether a project will adversely affect the integrity of a Natura 2000 site with respect to the function and structure of the Conservation Objectives for the site's Qualifying Interest (QI) species and habitats. Consequently, mitigation measures listed within the NIS are concerned only with ameliorating the impact of any potentially significant effects to the Conservation Objectives for three sites located within the zone of potential impact, the River Moy Special Area of Conservation (SAC 002298), Killala Bay/Moy Estuary Special Area of Conservation (SAC 000458) and Killala Bay/Moy Estuary Special Protection Area (SPA 004036). The designated sites are assessed in detail in the AA assessment carried out for the proposed project and I do not intend to repeat this assessment here.

Current Conditions

Table 9-13 of the EIAR summarises aquatic receptors of potentially affected watercourses, categorizes ecological valuation and classifies the Important Ecological Factors (IEF)s that are considered in the impact assessment.

Flooding will continue to affect areas identified to be at risk in the absence of the scheme. This can have ongoing and intermittent, negative effects on water quality in the case that surface waters flood through urban areas, mobilising contaminants before draining back to the Moy and its tributaries.

Historical alterations to hydromorphology will continue to affect watercourses, specifically:

1. Bunree and Quignamanger, which have extensive sections of existing, undersized culverts.

2. Tullyegan, which has been extensively drained and deepened with existing flood defence walls in the lower reaches.

3. River Moy in Ballina, which has existing, engineered walls and instream structures (salmon weir, bridge piers) and fisheries alterations (rock deflectors and old mill race "groyne") which modify flow.

Quay walls identified for repairs and refurbishment on the River Moy through Ballina, will continue to deteriorate, through obvious structural erosion and undermining, particularly evident in Ridgepool. This may lead to localised collapse causing temporary, uncontrolled influx of rubble, silt and sediment to the River Moy, as well as temporarily allowing uncontrolled flooding in the urban reach of the River Moy. This could directly impact on localised habitat and water quality of salmonid waters of the lower River Moy (smothering and short term, negative effects related to sediment input) and has potential to reduce the visual and angling amenity value of the Ridgepool and Cathedral Beat.

The response to submissions by RPS clearly sets out the proposed instream works areas in relation to sea lamprey spawning and nursery habitat. There are two discrete areas where instream works are proposed in the Ridge Pool: (1) A temporary access ramp on the true left (LHS, i.e., left side looking downstream) at the river margin along the front of IFI office, around to the 'groyne' area upstream of the warehouse, and (2) Temporary cofferdams of maximum width 5rn into channel along the true right hand side (RHS – Ridgepool Road side) to repair masonry Quay walls. These temporary works areas do not impinge on sea lamprey spawning habitat. Appendix 9-6 Ridge Pool Survey of the EIAR sets out the relevant instream surveys carried out in the River Moy, undertaken in September 2023 and May 2025.

As set out in Chapter 9 Section 9.4.4.1 of the EIAR, temporary works in the Ridgepool do impinge on marginal and limited sea lamprey nursery habitat in one location in the RHS of the Ridgepool immediately upstream of the Upper Bridge. Robust mitigation for this impact is set out clearly in Section 9.5.1.3 (Mitigation) of Chapter 9 of the EIAR.

The patch of nursery habitat on the LHS in front of Ballina Manor is not impacted by the proposed instream works and will be cordoned off on the landward side and marked as an “exclusion zone" during works in the Ridge Pool as clearly set out in Section 9.5.1.3 (Mitigation – Ridge Pool, River Moy) of Chapter 9 of the EIAR.

Temporary instream works also occur on both banks of the River Moy downstream of the Lower Bridge (N59) where footings for flood defense walls will need to be anchored. There is marginal and limited habitat for juvenile lamprey at this location.

Potential Effects

Sources of Construction Phase Effects include:

- Suspended solids
- Cement
- Hydrocarbons
- Temporary Hydromorphological Effects
- Temporary Habitat Disturbance
- Invasive Alien Species

Sources of Operational Phase Effects include:

- Hydromorphology – Flood Walls / Embankments

Table 9-14 of the EIAR summarises characteristics of the Proposed Scheme with potential for Source-Pathway-Receptor linkages that may affect aquatic receptors of Important Ecological Features. The linear length of each channel directly impinged upon by the measures provides context for scale and magnitude of potential effects. Table 9-15 and Table 9-16 of the EIAR summarise construction and operation phase effects described in Section 9.4.4 and Section 9.4.5. This summary clearly identify likely and significant effects and establishes where specific mitigation measures are required for avoidance, prevention and reduction of potentially negative effects.

Enhancement

I note that the proposed reshaping of the existing “groyne”, within the River Moy, as part of fisheries enhancement will improve salmonid holding and migration habitat on the riverine (mid-channel) side adjacent to the groyne and slightly downstream on the LHS by improving flow and depth characteristics. This will have a net neutral to positive effect on instream habitats for fish locally.

Also, fisheries enhancement measures are to be incorporated in the Ridgepool while the access ramp is in place on the LHS between Ballina Manor Hotel and Otter’s Lodge Apartments.

Mitigation

Section 9.5 of the Aquatic Biodiversity Chapter specifically addresses the full range of mitigation impacts that may arise during the construction and operational phases of the project. These measures have been developed to ensure the protection of ecological integrity throughout all phases of the project.

General mitigation measures (Section 9.5.1.1) apply to all watercourses, while site-specific measures are bespoke to particular works required on that watercourse. Table 9-17: sets out a Timing Restriction Summary. Section 9.5.1.1 refers to Water Quality Protection Measures. 9.5.1.2 refers to Invasive Species Measures. 9.5.1.3 River Moy (Ridgepool) sets out mitigation for Potentially Significant Impact Category Identified. Section 9.5.1.4 sets out mitigation for Potentially Significant Impact Category Identified for River Moy (Downstream of Lower Bridge - N59 crossing).

Section 9.5.1.5 sets out mitigation for Quignamanger. 9.5.1.6 sets out mitigation for Bunree. 9.5.1.7 for the Brusna (Glenree) and section 9.5.1.8 sets out mitigation for the Tullyegan. Operational phase mitigation is set out in section 9.5.2.1 and 9.5.2.2 with residual effects set out in Table 9-18

As highlighted by An Taisce, robust mitigations for any possible impact on sea lamprey spawning and nursery habitat in the Ridge Pool are clearly set out in Section 9.5.1.3 (Mitigation) of Chapter 9 of the EIAR.

The Construction and Environmental Management Plan (CEMP) sets out surface water quality monitoring procedures proposed during construction works. Details of surface water monitoring locations, sampling frequency and sample parameters are set out in Chapter 12: Water.

The developer will be required to employ a suitably qualified and experienced technical professional(s) such as an Environmental Clerk of Works (ECoW) for the duration of the construction phase. The ECoW shall be based on site and shall 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. The ECoW appointment and role must cover all phases of the construction including any advance works and accommodation works.

Chapter 22 Schedule of Environmental Commitments sets out all the mitigation and monitoring commitments to minimise the potential impacts for Chapter 9: Aquatic Biodiversity during the construction and operational phase of the Proposed Scheme.

It is concluded within the EIAR that provided that the Proposed Development is constructed and operated in accordance with the design, best practice and mitigation measures stipulated, significant residual effects on aquatic biodiversity are not anticipated on any Important Ecological Feature (IEF) at any scale.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 9 and all the associated documents and submissions on file in respect of Aquatic Biodiversity. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures to reduce any potential impacts to fish (salmonids (salmon and sea trout), eels, estuarine species), to sea lamprey spawning or nursery habitat, and aquatic macroinvertebrates incl. benthic macroinvertebrates. The pre-existing fluvial dynamics of the River Moy margin area will return to near-original almost immediately following removal of the access ramp and cofferdams at which time there will be a ready supply of macroinvertebrate drift for recolonization in the lower catchment. Microorganisms are likely to return to baseline density within 1-2 months. Given the width of the river Moy, and the relatively small instream works footprint, aquatic biota has considerable habitat availability and migration pathways outside of the temporary work zone at all times. The direct instream works footprint, following initial temporary disturbance does not significantly impinge on highly sensitive fisheries habitat, nor does it significantly alter the ecology of the river during the construction period.

Channel velocities will remain largely unchanged in terms of upstream migration of salmon, sea trout and lamprey under pre-scheme and design scenarios, especially considering that upstream fish movement through the estuary to river-entry often occurs during spates on the high tide, i.e., facilitated by favorable tidal conditions.

Reshaping of the existing “groyne” as part of fisheries enhancement will improve salmonid holding and migration habitat on the riverine (mid-channel) side adjacent to the groyne and slightly downstream on the LHS by improving flow and depth

characteristics. This will have a net neutral to positive effect on instream habitats for fish locally.

There are no significant changes to hydromorphology quality elements (morphological conditions, hydrological conditions, river continuity) that underpin WFD status for the freshwater River Moy as a consequence of the proposed scheme. The proposed scheme does not result in hydromorphological effects that could cause deterioration in WFD river water body status (Moy_120 IE_WE_34M021100) nor prevent attainment of good status (i.e., improvement from current moderate status).

There are no significant changes to hydromorphology quality elements (morphological conditions, tidal regime) that underpin WFD status for the (estuarine) transitional River Moy as a consequence of the proposed scheme. The proposed scheme does not result in hydromorphological effects that could cause deterioration in WFD transitional water body status (Moy Estuary IE_WE_420_0300) nor prevent attainment of good status (i.e., improvement from current 'moderate' status). (see WFD Assessment, Appendix 12-1).

The application of mitigation and protection measures throughout the construction and operational phases will ensure that no significant residual impacts will arise from the project, either alone or in combination with other plans or projects.

Due to the design of the project, the mitigation and monitoring measures and enhancement measures described which will be adopted, it is not likely that the project would have a significant or negative impact on any habitat alteration / disturbance, or cause a deterioration in the quality of any body of surface water or groundwater, is not likely to significantly impact upon any aquatic Important Ecological Feature (IEF) at any scale.

Conclusion: Direct and Indirect Effects

Having regard to the examination of environmental information provided in respect of aquatic biodiversity, I am satisfied that sufficient information has been provided to inform the consideration of effects. Having regard to the considerations above, I would agree with the conclusions reached in Chapter 9 of the EIAR that the proposed development would not give rise to significant direct nor indirect

environmental adverse impacts on aquatic biodiversity or any important Ecological Feature (IEF) at any scale. I am satisfied and conclude that adverse impact upon the habitat of salmonids and sea lamprey will not occur, regard being had to bespoke mitigation measures proposed. The applicant's commitment to and requirement by way of compliance with the CEMP to consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS) is noted.

The implementation of the proposed enhancement measures has the potential to result in significant positive effects on biodiversity and fisheries enhancements and angling access arrangements over the longer term, relative to the current condition of the site.

9.4. Terrestrial Biodiversity

Issues Raised

Concerns are raised by An Taisce with respect to:

- adverse impact upon otter.
- Importance of Consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS)
- query the necessity to remove trees within riparian habitat upstream of Rathkip/Shanaghy Bridge.
- Lighting intensity.

Concerns are raised by Moyvale Residents with respect to:

- potential loss of existing laurel hedge, trees and biodiversity within Moyvale Estate.

Examination of the EIAR

Context

Chapter 10 considers Terrestrial Biodiversity. I note that Chapter 9 deals with Aquatic Biodiversity, Chapter 11 – Land, Soils, Geology and Hydrogeology and Chapter 12 deals with Water, each of these chapters are assessed separately, in the subsequent sections of this report.

A description of the existing environment and European Sites within the ZoI of the proposed scheme is set out above in the assessment of Chapter 9 Aquatic Biodiversity. I do not intend to repeat the context or overlap in assessment here, albeit to say, that the Proposed Scheme spans the Ballina section of the River Moy and upper River Moy Estuary, plus four separate tributaries of the River Moy in the vicinity of Ballina: Tullyegan Stream, Quignamanger Stream, Bunree Stream and the Brusna / Glenree River.

Note: There is a comprehensive record of consultation with stakeholders and the public as detailed in Chapter 3 Consultation. Furthermore, detailed consultation was undertaken with both IFI and NPWS throughout the EIAR/ NIS preparation phase.

Current Conditions

A single Ramsar site lies within the ZoI of the Proposed Scheme, namely Killala Bay/Moy Estuary Ramsar site (Site Ref. 843). The Killala Bay/Moy Estuary Ramsar site encompasses a total area of 1,061 ha. It broadly overlaps with the Killala Bay/Moy Estuary SPA and is located within the Proposed Scheme area. The Moy Estuary is located within the Proposed Scheme area and is located within the Killala Bay/Moy Estuary Ramsar site. Therefore, there is direct overland and hydrological connectivity between the Proposed Scheme and the Ramsar site. An overview of the Ramsar site within the ZoI of the Proposed Scheme can be found in Figure 10-12 of the EIAR.

There are 5 proposed NHA (pNHA) sites within the ZoI of the Proposed Scheme, namely:

- Killala Bay/Moy Estuary pNHA (Site Code: 000458)
- Moy Valley pNHA (Site Code: 002078)
- Lough Conn and Lough Cullin pNHA (Site Code: 000519)
- Cloonagh Lough (Mayo) pNHA (Site Code: 001485)
- Lough Alick pNHA (Side Code: 001527)

An overview of the designated national sites (pNHAs) within the ZoI of the Proposed Scheme can be found in Figure 10-13 of the EIAR.

No protected plant species were observed within the Proposed Scheme area during surveys.

Numerous signs of otter (spraints, slides, couches, holts, live sightings) and potential signs of otter (mammal trails) were observed during surveys indicating a high level of otter activity throughout the Proposed Scheme area. Most of the otter evidence records occurred on the banks of the Brusna and Tullyegan watercourses. A single occupied holt was confirmed by camera trapping on the banks of the Brusna River in close proximity (approximately 10 m) to the proposed work's area. This holt has the potential to be a natal holt as two otter (mother and cub) were observed exiting the holt on the video images. Of the eight days the camera was in position, otters were observed exiting or entering the holt on six of these days/nights.

Figure 10-16 of the EIAR provides an overview of the otter signs observed across the Proposed Scheme while Appendix 10.6 and Appendix 10.7 outline the location and description of these signs across the Proposed Scheme area in further detail. The location of holts and potential holts have not been included to protect the location of these features. Otter have been classified as being of International Importance due to being a QI of The River Moy SAC.

Numerous signs of badger activity were recorded scheme wide while surveying, including mammal trails, snuffle holes, latrines/scat and potential setts. The specific badger evidence recorded occurred along the Bunree and Brusna sections of the Proposed Scheme. The habitats in which the evidence was recorded were agricultural grassland, scrub, hedgerows, treelines, woodland and parkland. Signs of other mammals were also observed including fox scat.

A potential badger sett was observed approximately 140m from the River Brusna proposed works area during surveys in July 2022. The works closest to this potential sett are located on the opposite side of the River Brusna to the potential sett with the nearest works area on the same side of the River Brusna as the potential sett being approximately 330 m away. During a re-survey of this area in May 2023 fox cubs were observed playing around (and entering) the entrance of this potential sett thus indicating that the den/sett was unlikely to be used by badgers at the time. No signs of badger (e.g. latrines, large piles of earth or bedding material etc.) were observed

around this den entrance in May 2023. Therefore, it is considered that no badger setts were observed within 150 m of the Proposed Scheme area.

No pine marten, red squirl, Irish stoat, hedgehog or pygmy shrew, deer species, Irish Hare were observed, or signs identified during field surveys. However, given the widespread distribution of hedgehog, Irish stoat and pygmy shrew species in Ireland it is considered likely that these species occurs within the study area due to the presence of suitable habitat. It is not considered likely that pine marten, Irish Hare, Deer species or red squirl occur within the study area due to the absence of suitable habitat.

The majority of the study area for the Proposed Scheme is classed under the bat suitability index as Moderate returning a score of 31.67, with the areas to the north (Quignamanger) of the ZoI classed as Low Moderate returning a score of 27.22.

When broken down by species, a number of bat species showed a high bat suitability index (>35) across the various works areas (see Table 10-10 of the EIAR

Bat Suitability Index (Lundy et al., 2011) for each Bat Species across the Various Works Areas).
No trees subject to removal for the Proposed Scheme were found to contain roosting bats at time of survey.

The flood defence walls along the main channel of the River Moy in the centre of Ballina town were determined to be of High suitability for roosting bats and were subject to emergence/re-entry and activity surveys. No bats were observed to be roosting in any walls to be upgraded across the Proposed Scheme. No other structures are to be impacted by the Proposed Scheme.

Excluding the flood defence walls along the centre of Ballina town, three structures across the Proposed Scheme were deemed to be of Medium suitability for roosting bats (see Table 10-11). These included a railway bridge over the Tullyegan stream, an old house being used as a farm shed along the Bunree and a stone shed within the boatyard located at the junction of Arbuckle Row and Bachelors Walk on the left-hand bank of the River Moy (see Figure 10-18 and Appendix 10.11 of the EIAR). The railway bridge and the old house were considered to be sufficiently outside the proposed works area that no impacts were anticipated and were therefore not subject to activity or emergence/re-entry surveys. A single soprano pipistrelle was

seen emerging from the boatyard shed (S-Moy001) at dusk on the 13th September 2022, indicating that this individual was roosting within the shed.

No dedicated surveys were undertaken for marine mammals, including harbour seal as the conservation objectives for Killala Bay/Moy Estuary SAC indicate that their resting, moulting and breeding sites are located approximately 7 km downstream of Ballina town while their habitat is considered to consist of the entire estuary area. A desktop study of available datasets provided no indication that this species utilises the estuary adjacent to the proposed work's areas. A number of live harbour seal, however, were observed in the vicinity of Ballina town and the Quay Road during the 2022/23 over-wintering bird surveys.

Harbour seal have been classified as being of International Importance as they are QI species of Killala Bay/Moy Estuary SAC.

There is limited potential for the Proposed Scheme to support resident populations of amphibians based on the low abundance of suitable habitat (e.g. wet grassland, drainage ditches) within the study area. No incidental signs of these species were recorded during the ecological surveys. In the absence of evidence, and in conjunction with the limited potential for the species to be present, they are not identified as an IEF.

Breeding bird surveys confirmed that the habitats within and adjacent to the Proposed Scheme supported regular occurrences of resident breeding passerine species. Migratory passerine species were also observed during breeding bird surveys. Wintering bird surveys indicated that numerous overwintering bird species utilise the river Moy and Moy estuary for foraging and roosting. Characterisation of the receiving environment identified a number of IEF for further assessment. These include designated sites (European and National), habitats (i.e. floating river vegetation, tall herb swamp, wet grassland, riparian woodland, mixed broadleaved woodland and hedgerow/treelines), badger, otter, harbour seal, bats – commuting and foraging, breeding birds and over-wintering birds.

Potential Effects

The key parameters examined as those having the potential to result in the greatest impact on the receiving terrestrial biodiversity environment were water pollution, air pollution, habitat loss/degradation and fragmentation, habitat severance/barrier effect, disturbance/displacement, accidental killing/injury and the spread of IAPS.

Instream and bankside construction has the greatest potential to adversely affect water quality of the River Moy and its tributaries, both locally and downstream. This is primarily linked to construction activities that can cause contamination of nearby surface waters with consequent effects on terrestrial ecological receptors that use the aquatic environment. This can be due to the release of silt, clay and cement particles in run-off or due to accidental spillages of pollutants.

Habitat loss is expected within the construction footprint of the Proposed Scheme, including the loss of floating river vegetation to facilitate instream works within the River Moy and the loss of tall herb swamp to facilitate flood wall demolition and construction along Clare Street and Bachelors Walk. Vegetation removal and earthworks during site clearance will result in the loss of habitat and its supporting function for a number of species. This activity will also result in potential for habitat degradation due to impacts and effects such as polluted run-off, disturbance from construction and the spread of IAPS. Such degradation could also result in effects on species dependent on this habitat. The EIAR sets out that the extent of habitat loss to enable the Proposed Scheme will have a significant impact on the available habitat for local species such as bat and otter.

Construction along the River Brusna, River Moy and River Tullyegan have the greatest potential to adversely affect otter habitats. This is primarily linked to construction vehicles, machinery, excavations and materials involved in the demolition of old flood defences and construction of new flood defences. Two otter couches will be removed along the River Moy to facilitate the proposed works while the use of a natal holt along the River Brusna by otter will also be affected. A derogation application to the NPWS pertaining to these holts was received from the NPWS in April 2025 (DER-Otter-2025-09). As this licence is valid for the calendar year 2025, a second licence will be applied for, if required, following the results of the pre-construction surveys.

There will be no permanent loss of otter habitat anywhere across the Proposed Scheme. Due to its close proximity to the proposed works, one holt along the Brusna will be excluded from use by otter for the duration of the works adjacent to it for the safety of the otter that use it. This holt will once again be free for use by otter when the works are completed. The use of the two couches along Clare Street will be temporarily affected as works are progressing but this area will also then be free for use by otter once works are finished. Couches are also temporary and ephemeral structures as otter can move between couching areas across their territory. Additionally, the way works have been designed along Clare Street also (i.e. working on a length/section that can be completed in 1 week) also leaves other areas along this approx. 300m stretch of bank for otter to use.

The landscaping plans along the Brusna will provide more cover for otter (and the current holt) than is currently present. Flood relief measures have been designed to be as far back from the river as possible to preserve the riparian habitat and facilitate otter movement throughout the landscape.

During construction, noise and vibration due to excavations, earthworks and movement of construction vehicles could displace foraging or commuting birds and SCI bird species. Disturbance from construction activities (i.e. noise, vibration, human presence, artificial lighting, occasional night time working) may also result in the partial loss of foraging and commuting habitat and displacement of otter. Additionally, there is the potential for direct mortality of fauna during construction activities e.g. badger or otter falling into open excavations, vegetation removal resulting in the killing and/or injury of nesting birds and their young.

During construction activity, there is potential to cause the spread of invasive species due to the movement of construction personnel, transport vehicles and excavated spoil. IAPS are easily spread and their proximity to the Proposed Scheme may change over time.

Mitigation

Mitigation measures for the protection of IEFs include measures such as the following:

- Pre-construction surveys.

- Timing of works to avoid breeding and migratory seasons.
- Watching brief during site clearance.
- IAPS management.
- Specific measures surrounding bats, breeding birds, habitats including floating river vegetation, wet grassland and tall herb swamp, badger and otter which includes a derogation licence and landscape planting. A derogation application to the NPWS pertaining to these holts was received from the NPWS in April 2025 (DER-Otter-2025-09). As this licence is valid for the calendar year 2025, a second licence will be applied for, if required, following the results of the pre-construction surveys.
- Enhancement measures for breeding birds and roosting bats will involve erecting bird and bat boxes.

The implementation and efficacy of all mitigation measures will be overseen and monitored by a dedicated ECoW during both the construction and operational phases. A wide range of mitigation measures have also been included within other chapters (Chapter 9: Aquatic Biodiversity, Chapter 11: Land, Soils, Geology and Hydrology and Chapter 12: Water) as part of the Proposed Scheme to prevent contamination of surface waters during the construction phase. Additionally, noise and vibration measures have been provided in Chapter 15: Noise and Vibration.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 10 and all the associated documents and submissions on file in respect of Terrestrial Biodiversity. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section 10.5 to reduce any potential impacts.

The application of mitigation and protection measures throughout the construction and operational phases will ensure that no significant residual impacts will arise from the project, either alone or in combination with other plans or projects.

Due to the design of the project, the mitigation and monitoring measures and enhancement measures described which will be adopted, it is, in my opinion, not likely that the project would have a significant or negative impact on any habitat alteration / disturbance, mammals, bats, birds, reptiles and amphibians freshwater macro-invertebrates and freshwater aquatic or cause a deterioration in the quality of any body of surface water or groundwater, is not likely to significantly impact upon any Important Ecological Feature (IEF) at any scale.

It is acknowledged that the removal of riparian woodland and vegetation can have significant effects without the implementation of appropriate mitigation measures. Hence, the flood relief measures have been designed to be as far back from the riparian habitat as practicable. The majority of riparian tree removal required for the Proposed Scheme will be of ash which have ash die back and some trees marked for removal are small immature trees which currently do not provide a considerable biodiversity benefit. Native woodland and shrub/vegetation planting is proposed across the Scheme to offset the required tree removal to facilitate the necessary flood defence infrastructure. Refer to Chapter 19 Section 19.4 for details and Appendix 19-1 Mitigation Planting which details all the proposed riverbank planting and native woodland planting to support biodiversity, including riparian biodiversity across the scheme. With respect to the necessity to remove trees within riparian habitat upstream of Rathkip/Shanaghy Bridge and the loss of the laurel hedge within Moyvale estate I consider the impact on balance is necessary for FR works to be carried out. The loss of vegetation is not significant, in my opinion, regard being had to landscape replacement and mitigation proposals.

Existing lighting will be replaced where disturbed along the River Moy and all other areas of work. I note that there are currently no proposals to change the nature of the lighting except for making a change to LED lighting where lights have not already been upgraded. Where upgrades are required, lighting with a limiting colour temperature to less than 2,700 Kelvins can be implemented. In public realm areas where further lighting may be added, a limiting colour temperature to less than 2,700 Kelvins can be implemented. This I note is in accordance with the recommendation of An Taisce, I have no concerns in this regard.

Conclusion: Direct and Indirect Effects

Having regard to the examination of environmental information provided in respect of terrestrial biodiversity, I am satisfied that sufficient information has been provided to inform the consideration of effects. Having regard to the considerations above, I would agree with the conclusions reached in Chapter 10 of the EIAR that the proposed development would not give rise to significant direct nor indirect environmental adverse impacts on terrestrial biodiversity or any important Ecological Feature (IEF) at any scale.

While loss of SAC area is not deemed significant, planting of trees and shrubby species that will be undertaken for the Proposed Scheme will help minimise any effects of loss of SAC area. The areas where this planting is to occur are identified within Chapter 19: Landscape and Visual. Planting will consist of the same species lost with trees/shrubs sourced to be of Irish native provenance. I am satisfied that impact upon Otter will not be significant regard being had to mitigation proposed and the Derogation Licence in place. The applicant acknowledges and has agreed to consult with IPI and NPWS. The implementation of the proposed enhancement measures has the potential to result in significant positive effects on biodiversity over the longer term, relative to the current condition of the site.

9.5. Land, Soils, Geology and Hydrogeology

Issues Raised

No specific issues or concerns have been raised by observers with respect to land, soil, geology or hydrogeology. I note concerns raised with respect to aquatic biodiversity is dealt with under Chapter 9 Aquatic Biodiversity.

Examination of the EIAR

Context

Chapter 11 considers Land, Soils, Geology and Hydrogeology. The project has incorporated elements of best practice into the construction and operational design of the project. Assessments are based on this being implemented.

The study area is underlain by dark grey calcareous limestones and shales of the Ballina Limestone Formation. The vast majority of the bedrock geology in the study

area is classified by the Geological Service Ireland (GSI) as a Regionally Important Karstic Aquifer represented by the Pure Bedded Limestone of the Upper Ballina Limestone Formation. Subsoils with 'High' groundwater vulnerability underlie a high proportion of the Proposed Scheme. Under the WFD, the Groundwater Bodies (GWBs) that need to be protected areBallina GWB, Foxford GWB and Ballina Gravels Group 1.

There is one geological heritage area (GHA) identified within the study area: The River Moy is a designated County Geological Site under the Irish Geological Heritage (IGH) Programme.

Features of high geological/hydrogeological importance identified include Tufa cascades, commensurate with the priority Annex I habitat Petrifying Springs [7220] located along the lower reaches of the Quignamanger Stream where it approaches its confluence with the River Moy.

There is no evidence of contaminated land along the Proposed Scheme and the potential to encounter contaminated land is low to minimal.

Potential Effects

The EIAR states: Predicted impacts during the construction phase were identified as soil erosion and compaction, soil pollution (via spillage of construction materials, dewatering, infiltration of surface water runoff), embankment settlement, loss of bedrock and soil reserves, increase of aquifer vulnerability, groundwater contamination and impacts to riverbed geomorphology and Groundwater Dependent Terrestrial Ecosystems (GWDTE) (tufa formation). These impacts were assessed by taking into account the methods, extent, and volume of earthworks proposed, excavations of soft soil and rock and material extraction.

No potential impacts were identified during the operation phase. Maintenance activities during the operational stage will involve periodic inspection of flood walls, monitoring of the newly constructed embankments to check for signs of instability or soil slippage and inspection of culverts.

Mitigation

Section 11.5 sets out Mitigation Measures. A series of measures have been proposed to mitigate the potential impacts associated with the construction phase.

These measures include the minimising of excavations, reuse of excavated material (soil and stone), erosion and sediment control techniques, compliance with measures set out in CIRIA's Control of water pollution from construction sites, use of geotextiles for construction of embankments, instream works to be undertaken in the dry or in low flow conditions, exclusion zone around tufa formations (open channel design).

It is noted that mitigation measures will be employed at the site and include, but are not limited to, measures to prevent soil and groundwater contamination, including appropriate handling of fuels. Pollution control and other preventative measures have been incorporated into the project design to minimise adverse effects on soil quality. Mitigation by design has been the principal means which will reduce suspended sediment run-off arising from construction activities. Preventative measures also include fuel, concrete, and waste management, which are incorporated into the project CEMP. No significant residual impacts are recorded.

Ensuring that a CEMP is in place will mitigate any risks associated with the removal of superficial deposits and/or bedrock, thus reducing these impacts to an imperceptible level. Section 9.5.1 of Chapter 9: Aquatic Biodiversity sets out mitigation measures for sediment loss controls. The measures set out in Section 12.5.1 of Chapter 12 Water for limiting suspended solids from entering water will also protect groundwater. The mitigation measures set out under Section 11.5.1.5 of the EIAR will mitigate against loss of aquifer and/or an increase in groundwater vulnerability. There will be no direct discharge of surface water from any element of the works without suitable attenuation and treatment of sediments. New culverts and culvert upgrades are required to be constructed in accordance with the requirements of the OPW and IFI.

Where stockpiling of topsoil is required, stockpiles shall be limited to heights not exceeding two metres, shall be battered back to a stable slope, and shall not be unnecessarily trafficked (TII, 2011). There will be no stockpiles within the SAC and or within 20 m of the main channel of the River Moy or any drains that connect to the river. Care will be taken in reworking this material to minimise the effects of weathering, dust generation, groundwater infiltration and generation of runoff. Construction compounds have been selected at the Old Ballina Diaries site, Mayo County Council (MCC) lands on Barrett Street and sites located on private lands at

Ridgepool Road, Behy Road and Bonniconlon Road where there will be designated stockpiling areas. These locations will allow material to be delivered to central locations and is not bound by the works programmes at each embankment/flood wall works area.

Where compaction occurs due to vehicle and truck movements remediation works will be undertaken to reinstate the ground to a condition to at least equal to that of the original surface. Vehicles will minimise tracking over natural or unfinished surfaces and will not track over reinstated soils.

Ensuring that a CEMP is in place will mitigate any risks associated with the removal of superficial deposits and/or bedrock, thus reducing these impacts to an imperceptible level.

I highlight that Chapter 22 Schedule of Environmental Commitments is notable, it sets out all the mitigation and monitoring commitments to minimise the potential impacts for Land, Soil, Geology and Hydrogeology during the construction and operational phase of the Proposed Scheme.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 11 and all the associated documents and submissions on file in respect of Land, Soils, Geology and Hydrogeology. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts. The significance of all impacts identified in Section 11.4 of the EIAR will be reduced to Imperceptible with the implementation of the mitigation measures outlined in Section 11.5.

Having regard to the nature of the proposed flood relief works, it is inevitable there will be an impact on land and soils, during construction and operation phases. I concur that the nature of the works and their location, would mean that effects on land and soils are not significant. Impacts upon Water, Waste, and Aquatic biodiversity are independently assessed in Chapter 12, Chapter 16 and Chapter 9, respectively, of this report and I do not intend to replicate such assessments here.

I accept that there is potential for contamination of land and soil from spillages or leakages from machinery or stored substances. However, pollution control measures which have been put in place, as set out the EIAR will serve to reduce the risk of soil

and bedrock contamination, and I concur the works will not result in significant residual effects to soils and geology.

A Screening for Appropriate Assessment (Stage 1) and Natura Impact Statement (Stage 2) were completed for the proposed development and determined that there will be no adverse impacts on any qualifying species of protected Natura 2000 sites. Additionally, mitigation measures will be implemented as part of the EIAR and the CEMP to ensure that there will be no significant adverse effects on the land and soils pertaining to the development site

Conclusion: Direct and Indirect

Having regard to the above, I would agree with the conclusion reached in Chapter 11 of the EIAR that the proposed Flood relief Scheme will not give rise to direct nor indirect adverse impacts, and that significant adverse impacts on land, soil, geology and hydrogeology can be ruled out.

9.6. Water

Issues Raised

An Taisce has recommend the project be assessed against Article 4 of the Water Framework Directive to determine whether the project may cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwater status or of good ecological potential and good surface or ground water chemical status. I note concerns raised with respect to aquatic biodiversity is dealt with under Chapter 9 Aquatic Biodiversity. I also note that Chapter 11: Land, Soil, Geology and Hydrogeology: sets out and examination of hydrogeological and groundwater impacts.

Examination of the EIAR

Context

Chapter 12 considers water and assesses the potential for likely significant impacts of the proposed Ballina Flood Relief Scheme on the natural water environment during both the construction and operational phases. The Zone of Influence (ZoI) consists of a 250m-wide corridor either side of the Proposed Scheme boundary as

recommended by the 2008 National Roads Authority (NRA) Guidelines. Consideration is also given to the WFD surface waterbodies that are potentially hydrologically linked to the scheme area.

The Proposed Scheme is located within the lower reaches of the River Moy catchment. The principal watercourses identified in the ZoI are the River Moy and its tributaries, the Tullyegan stream, the River Brusna, the Quignamanger stream, and the Bunree stream. These watercourses flow into the Moy Estuary, which flows into the Atlantic Ocean. The scheme area is subject to fluvial and tidal flooding within the ZoI. The predicted flooding within the ZoI affects 297 properties in the 100-year fluvial event and 184 properties in the 200-year coastal event, and there are extensive records of historic flooding. The flooding impacts are predicted to worsen with climate change.

The River Moy SAC and Killala Bay/Moy Estuary SAC are within the ZoI, both of which are water dependent ecological receptors. The River Moy also represents a highly significant salmonid system and is a designated salmonid water.

The latest WFD status of the waterbodies in the ZoI ranges from Moderate to Good. The River Moy and Moy Estuary are classified as At Risk of not achieving Good ecological status. There are no known public or private groundwater abstractions within the study area.

River Moy.

The River Moy and Moy Estuary are protected European Sites, with water-dependent qualifying interests. The River Moy is also a designated salmonid water and is an important recreational asset. Therefore, the receptor's sensitivity to water quality is considered to be Extremely High.

Quignamanger

No water quality data is available from the EPA for this watercourse. The EPA has assigned it a low-confidence Good status based on modelling. It is not a designated European or fisheries site. An ecological evaluation of County Importance is assigned in Chapter 9: Aquatic Biodiversity. Therefore, the receptor's sensitivity to water quality is considered to be High.

Bunree

No water quality data is available from the EPA for this watercourse. The EPA has assigned it a low-confidence Good status based on modelling; however, it does not distinguish between this highly modified watercourse and the Quignamanger. It is not a designated European or fisheries site. An ecological evaluation of Local Importance is assigned in Chapter 9: Aquatic Biodiversity. Therefore, the receptor's sensitivity to water quality is considered to be Medium.

Brusna

The River Brusna is a protected European Site, with water-dependent qualifying interests. Therefore, the receptor's sensitivity to water quality is considered to be Extremely High.

Tullyegan

No water quality data is available from the EPA for this watercourse. The EPA has assigned it a low-confidence Moderate status based on modelling. It is not a designated European or fisheries site. An ecological evaluation of Local Importance is assigned in Chapter 9: Aquatic Biodiversity. Therefore, the receptor's sensitivity to water quality is considered to be Medium.

The EIAR submits that the potential impact on water quality due to construction activities could result in a negative impact on the integrity of a receiving waterbody.

The significance of effect is set out in section 12.4.1.1.3 of the EIAR for the River Moy, Quignamanger, Bunree, Brusna and Tullyegan. In general, a short-term, reversible and **Moderate Adverse** impact can be expected in the absence of mitigation, causing a partial loss of a fishery or amenity.

Water Framework Directive - Protected Areas

The EU Water Framework Directive (WFD) is the principal framework for managing the water resources of the entire European Union. The environmental objectives of the WFD are set out in Article 4 of the Directive.

The impact of the Proposed Scheme on the overall ecological status of relevant water bodies in terms of the objectives set out in Article 4(1) of the WFD has been assessed. Article 4(1)(a) requires that, within specified time frames, Member States shall:

- Prevent deterioration of the status of all bodies of surface water; and
- Protect, enhance and restore all surface water bodies, with the aim of achieving good status.

An assessment was carried out on the River Moy, Quignamanger, Bunree, Brusna and Tullyegan, as they are potentially affected by the Proposed Scheme. The Common Implementation Strategy (CIS) Guidance No. 36 (EC, 2017), provides a framework for carrying out the assessment. The assessment is contained in Appendix 12.1 Water Framework Directive Compliance Report. Appendix 12-1 Water Framework Directive Compliance Report and Appendix 9.8 Hydraulic Cross Section Data comprehensively addresses hydromorphological effects on waterbody status in relation to the Biological Quality Elements that define status. This includes impacts on fisheries spawning and nursery habitat at relevant watercourses. Brusna (Glenree), Tullyegan and River Moy are the only fisheries channels (noting that the latter is tidal and does not support salmonid spawning). The Water Framework Directive Compliance Report is supported by analysis of the hydraulic modelling (Appendix 9.8) with regards to fisheries habitats

The WFD compliance assessment concludes that the Proposed Scheme will not cause a deterioration of status in any water body, nor will it compromise the attainment of good status where necessary. The Proposed Scheme is therefore compliant with WFD Article 4(1) objectives. The Proposed Scheme also advances the overall purpose of the WFD by contributing to mitigating the effects of floods, as per Article 1(e).

I highlight, that the nature and location of the proposed construction works, both along and within watercourses, may result in residual temporary negative impacts on water quality and aquatic ecology, which are discussed in Chapter 9: Aquatic Biodiversity and the Appropriate Assessment Screening and NIS which were prepared for the proposed development.

Water management measures described in the Construction Environmental Management Plan (CEMP) will be implemented by the contractor during the construction phase. A suitably qualified and experienced Environmental Clerk of Works (ECoW) will be employed for the duration of the scheme, including advance works and accommodation works, to oversee and ensure implementation of the

CEMP. General mitigation measures and controls relevant to water are set out in the CEMP and section 12.5 of the EIAR.

An Operation and Maintenance Manual (O&M Manual) will be developed for Mayo County Council and will include an inspection and maintenance regime of all flood defence infrastructure. Maintenance activities may include structural repairs, culvert inspection and jetting, vegetation management, channel maintenance and pumping station maintenance.

As concluded in section 10.0 of this report it is considered that preventative mitigation measures, such as, inter-alia:

- Limit suspended solids from entering watercourses by placing controls at all sources and pathways (inter-alia, buffer zones, sand bags, silt fencing, settling tanks and silt bags, dewatering, soak pits and infiltration trenches where feasible, stockpiling only allowed in designated areas)
- Limit cementitious particles from entering watercourses by placing controls at all sources and pathways (inter-alia, dedicated, suitably prepared concrete washout areas for concrete, signs will be erected, water collected in wash pits will be tankered off-site for treatment)
- Limit hydrocarbons from entering watercourses by placing controls at all sources and pathways.
- Limit construction debris entering watercourses due to riverside wall construction.
- Flood preparedness (inter-alia, checking water levels at Rahans gauge on a daily basis or twice daily during times of high flow when works are occurring in the vicinity of the River Moy, monitoring, developing an emergency response).
- Consultation with IFI.
- Restrict instream works to appropriate seasonal windows.

Will achieve:

- Prevent a deterioration in status of bodies of surface and groundwater;
- Not jeopardise the attainment of good surface water chemical status;

- Not permanently exclude or compromise the achievement of the objectives of the WFD in other bodies of water within the same river basin district; and
- Is consistent with other Community Environmental legislation.

I conclude that on the basis of objective information, that the proposed development will not result in a risk of deterioration on any water body (rivers, streams, lakes, groundwaters, transitional and coastal) either qualitatively or quantitatively or on a temporary or permanent basis or otherwise jeopardise any water body in reaching its WFD objectives and consequently can be excluded from further assessment.

Flood Risk

During the construction phase, the increased risk of flooding due to temporary occupation of the floodplain will be mitigated by the top level of the cofferdams being set to the 10% AEP level and the timing of the works occurring during lower flow periods. With mitigation in place, the magnitude of the impact is reduced to Negligible (i.e. Negligible change in predicted peak flood level), and the overall significance of the effect will be Imperceptible.

During the operational phase, compared to the existing scenario, there will be an overall major beneficial effect on flood risk within the scheme area, as described in Section 12.4.2.3. 241 properties currently at risk from flooding in the 1% AEP fluvial event and 184 properties in the 0.5% AEP coastal flood events will be defended. This represents a significant positive effect on flood risk. This relies on proper maintenance and operation of the scheme elements. 56 properties will continue to experience fluvial flooding from the Knockanelo Stream. Residual flooding will also occur in localised areas which do not experience flooding in the present day scenario, but which do not pose a risk to residential or commercial properties.

The hydraulic model indicates localised, negligible increases in flood extents occurring in the proposed scenario, primarily on greenfield sites subject to existing flooding. The increased extents do not put additional properties at risk.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 12 and all the associated documents and submissions on file in respect of Water. I am

satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts and provides suitably comprehensive range of mitigation and monitoring measures in Section 12.5.1 and section 12.5.2 to reduce any potential impacts.

Due to the design of the project, and the bespoke mitigation and monitoring measures described which will be adopted, it is not likely that there will be any significant impact for water quality during the construction or operational phase of the proposed development. The proposed development alone or in combination with other developments is not likely to cause a deterioration in the quality of any body of surface water or groundwater, is not likely to alter the chemical status of any waters, is not likely to have a significant effect on any European site and is not likely to compromise the ability of any waters to meet the objectives of the Water Framework Directive and transposing legislation.

Conclusion: Direct and Indirect Effects

I am satisfied that sufficient information has been provided to inform the consideration of effects in respect of water resources and hydrology. Having regard to the considerations above, I would agree with the conclusions reached in Chapter 12 of the EIAR that the proposed development with mitigation would not give rise to significant direct nor indirect adverse impacts on the River Moy, Quignamanger, Bunree, Brusna and Tullyegan streams and or surface water or groundwater.

9.7. Air Quality and Climate

Issues Raised

No issues have been raised with respect to air quality and or climate. An Taisce acknowledges the flood risk of this area, and the serious threat posed to homes and lives. TII fully supports the need to develop a Flood Relief Scheme (FRS) for Ballina in the interests of protecting residents and businesses from serious flooding events.

Examination of the EIAR

Context and potential effects

Chapters 13 and 14 of the EIAR considers the impacts of the development on air quality and climate in the vicinity of the site. Chapter 14 evaluates the potential air quality impacts on sensitive receptors from construction dust in terms of dust soiling of property, dust-related human health effects and dust-related ecological effects. Chapter 14 sets out possible climate impacts and that GHG emissions associated with the construction phase of the Proposed Scheme are predicted to be a small fraction (0.03%) of Ireland's Industry sector 2030 emissions ceilings of 4 Mt CO2e.

While the Proposed Scheme will result in some GHG emissions during construction and minor GHG emissions during operation, these GHG emissions must be considered in the context of the overall Proposed Scheme and the purpose of the Proposed Scheme. The Proposed Scheme will implement a number of Best Practice Mitigation (BPM) measures to reduce GHG emissions which will reduce the impact to climate. GHG emissions during the operational phase due to ongoing maintenance activities were assessed and were found to be a small fraction (0.0001%) of Ireland's Industry sector 2030 emissions ceilings of 4 Mt CO2e. These emissions were considered not significant.

Mitigation

All phases of construction including demolition shall be undertaken in accordance with the measures outlined in the CEMP. These measures will include:

- Maintaining clean road surfaces
- Dust suppression
- Use of wheel wash facility
- Site Management
- Covering or dust suppression of stockpiles
- Ensure regular maintenance of plant and equipment
- Adherence to the Traffic Management Plan
- Monitoring

Once the dust minimisation measures outlined in Section 13.5.1 are implemented, the impact of the Proposed Scheme on air quality will be short-term, direct, negative, localised, imperceptible and not-significant.

Chapter 22 Schedule of Environmental Commitments collates all the mitigation and monitoring commitments recommended.

The purpose of the Proposed Scheme is to provide for a resilient flood relief scheme to reduce the vulnerability of the area to future flood events. Flood events are likely to increase in the future as a result of climate change and altered weather patterns. No significant risk as a result of climate change vulnerability were identified as a part of the assessment. The Proposed Scheme has only low vulnerabilities to the identified climate hazards. The Proposed Scheme is not significant in relation to climate change vulnerability. While the Proposed Scheme will result in some GHG emissions during construction and more minor GHG emissions during operation, these GHG emissions must be considered in the context of the overall scheme and the purpose of the scheme. The scheme will implement a number of best practice mitigation measures to reduce GHG emissions which will reduce the impact to climate. Overall, when taking the purpose of the scheme into consideration, along with the predicted GHG emissions, the impact to climate is considered long-term, neutral, minor and not significant.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 13 and 14, and all the associated documents and submissions on file in respect of Air Quality and Climate. I am satisfied that the information submitted in the EIAR has regard to CAP24 and adequately demonstrates an understanding of the potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures, which will minimise adverse effects on air quality and climate.

9.8. Noise and Vibration

Issues Raised

Moyvale Residents Association have raised the issue of noise impact. It is acknowledged in the EIAR that site preparation, demolition, excavation, construction, finishes and site reinstatement will give rise to effects of noise and possible vibration.

Examination of the EIAR

Chapter 15 considers ‘Noise and Vibration’. The chapter carries out an assessment of the potential noise and vibration impact for the demolition phase, construction phase and operational phase. It also sets out proposes mitigation measures to minimise any adverse effects. The chapter evaluates the potential noise and vibration effects on sensitive receptors from the proposed development at all five works locations.

Potential effects

Predicted noise levels for most phases of construction at the five sites are below the BS5228 thresholds for onset of significant effects. Site preparation (use of chainsaw), foundations, demolition, construction works, excavation and finishes at some of the work’s locations are predicted to have noise emissions which may at times exceed the BS5228 thresholds at the nearest NSLs. However, the predicted exceedances are due to a small number of plant items (rock breaker, consaw, chainsaw and hydraulic compactor) which will not be in use for durations (10 or more days or nights in any 15 consecutive days or nights; or a total number of days exceeding 40 in any 6 consecutive months) sufficient for significant effects. Furthermore, I would agree that a positive attitude to the Proposed Scheme is expected from all nearest NSLs given the obvious benefits conferred by prevention of floods, and therefore a higher tolerance for elevated noise levels is expected (as allowed for in BS5228).

Without noise mitigation measures, the predicted significance of effects due to construction noise at the nearest NSLs range from slight to profound. Other effects predicted by the assessment are listed below:

- Construction Phase vibration – not significant.
- Construction Traffic noise and vibration – not significant.
- Construction Compounds noise and vibration – slight.
- Operational noise and vibration – scoped out of the assessment.

The noisiest plant items expected to be in use are the rock breaker and consaw, and temporary noise barriers completely blocking line of sight to the nearest NSLs will be used where Noise Sensitive Locations (NSLs) are within 25 m of these activities. Engagement and communication with residents regarding noisy works is

recommended. Implementation of Best Practicable Means (BPM) is required to ensure that construction noise levels are properly controlled.

The predicted significance of effect for vibration from the Proposed Scheme is not significant, i.e., there are no significant vibration effects predicted.

Chapter 10 Terrestrial Biodiversity has assessed the impact of noise and vibration on ecological receptors and assessed the residual effect of construction noise, subject to the implementation of the mitigation measures, on IEFs as not significant.

Locations of proposed construction compounds and expected activities therein have been reviewed and assessed. The compounds will primarily be used for storage of materials etc. in addition to welfare facilities and therefore activities within the compounds will not give rise to noise levels above the BS 5228 thresholds, predicted effects are slight, and there no significant effects predicted for noise or vibration from

Construction Compounds.

The Bachelors Walk and Behy Road compounds are sited bounding NSLs. General mitigation measures for noise at these sites are provided in Section 15.5. Interactions between Traffic and Transport and environmental factors such as population, human health, water, biodiversity, air quality and climate, material assets, noise and vibration, landscape and visual have been addressed in Chapter 20: Interactions and Cumulative Effects.

There are no likely significant effects due to noise and vibration for the operational phase of the Proposed Scheme and operational noise and vibration have been scoped out of the assessment.

Mitigation

No significant effects are predicted at NSLs or ecological receptors from demolition phase works, however best practice measures as outlined for construction noise mitigation, will be applied during demolition works.

During the construction phase, best practices, such as regular maintenance of machinery and limiting working hours will mitigate the effects of noise. Work practices, equipment noise control and screening shall be in compliance with BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, and BS 5228-2:2009+A1:2014 Code of

practice for noise and vibration control on construction and open sites – Part 2: Vibration (together referred to as B.S. 5228).

A noise and vibration monitoring programme will be implemented for the duration of the construction phase. Full details of the contractor's provision for noise and vibration monitoring and procedures including provisions for publication of monitoring results will be submitted to and approved by the Local Authority prior to commencement of work. The Local Authority shall have discretion to vary the monitoring requirements and publication of results during the course of construction.

Evaluation and Assessment: Direct and Indirect Effects

Following implementation of construction noise mitigation efforts, some noise impacts will remain. The largest exceedances of BS5228 noise thresholds are predicted for use of rock breakers and consaws. Full acoustic screening will provide approximately 10 dB reduction in these noise levels (BSI, 2009). The noise levels that will remain following mitigation may exceed BS5228 noise thresholds at some NSLs for brief periods where use of the rock breaker and consaw is necessary. Taking into account the short duration of the predicted exceedances of the BS5228 noise thresholds, the predicted significance of effect is reduced to moderate for these residual impacts.

- Prior to the commencement of construction, the contractor will set out and agree a schedule of noise monitoring with the Local Authority to include the number and locations at which noise monitoring will be carried out, the frequency and duration of the monitoring and the reporting of results.
- No specific requirements for vibration monitoring have been identified, however should this be required a similar process to the above for noise will be followed by the contractor.

I have examined, analysed and evaluated the information provided in Chapter 15 and all the associated documents and submissions on file in respect of Noise and Vibration. I have inspected the site and the surrounding area. I am satisfied that temporary noise from rock breaking and consaws will not be significant with full acoustic screening of rock breakers and consaws. I am also satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the

potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures. Noise monitoring will be conducted during construction to ensure compliance with noise limits. No operational phase monitoring is required.

In relation to the conclusions of the EIAR, I concur with same, and I am satisfied that the information submitted in the EIAR has adequately set out the potential impacts of the development on noise and vibration. With the implementation of mitigation measures, the proposed development will not result in significant noise or vibration impacts during any phase of the project. Temporary effects during construction and demolition will be carefully managed to protect residents and wildlife. The overall impact of the project on the noise and vibration environment is expected to be minimal and manageable. Therefore, I am satisfied that no significant effects on the noise and vibration environment will result from the development.

9.9. Material Assets: Waste & Utilities

Issues Raised

No third-party submissions raise issues of concern with respect to material assets. Taken to mean built services and infrastructure' including electricity, telecommunications, gas, water supply, sewerage infrastructure and waste management. Traffic and transport issues and concerns raised are assessed separately. Uisce Eireann (UE) state in their observation they have reviewed the plans and particulars of the Proposed Scheme and note there are no new connections proposed to UE's infrastructure as part of the Scheme, there are no UE abstraction points within the section of Moy where the Scheme is located and there is no implication for a water source protection impacts arising from the Proposed Scheme. Full details of the UE observation are set out in section 6.2 of this report above.

Examination of the EIAR

Context and Potential Effects

Chapter 16 deals with Material Assets: Waste & Utilities. It is acknowledged that excavation during the construction phase may give rise to risks to human health as a result of any excavation work in areas where built services exist. The site crosses

connection lines to the gas, electrical and water grids as well as telecommunication and sewerage infrastructure. I note the issues raised by TII with respect to scour assessment and I cross reference my assessment of the applicants response to the concers raised under paragraph 9.1 ‘Traffic and Transport’ of my report.

As stated above Uisce Eireann have been collaborated with, and no concerns have been raised. There are no new connections proposed to UE infrastructure.

Construction of the Proposed Scheme is likely to have short-term, slight or moderate effects on utilities without the implementation of mitigation measures during the Construction Phase. No significant impacts to utilities are predicted during the operational and maintenance phase of the Proposed Scheme.

Mitigation

All mitigation measures outlined in section 16.5.1.1 ‘Utilities’ and 16.5.1.2 ‘Waste’ of the EIAR and in the CEMP shall be implemented. A Waste Management Plan (WMP) shall be prepared by the appointed Contractor to deliver the mitigation in respect of waste presented in the EIAR. Mitigation measures will be considered on an individual basis, and each conflict location will be discussed with the relevant utility provider.

Effects during construction after the introduction of mitigation measures are expected to be short-term in nature and not significant. The Proposed Scheme will protect the key utilities in Ballina from flooding events during the Operational Phase. As a result of the Proposed Scheme, the area may become more attractive for residential and business purposes. This improved attractiveness will likely support improvements in key utilities established in Ballina in the future. The Proposed Scheme will also protect existing key utilities, thus reducing the disruptions to these facilities in the future. The residual effect of the operational phase is predicted to have a slight positive, long-term effect.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 16 and all the associated documents and submissions on file in respect of material assets: waste & utilities. I have inspected the site and the surrounding area. I am satisfied that the information submitted in the EIAR adequately demonstrates an

understanding of the potential impacts generated by the development and provides a suitable range of mitigation and monitoring measures.

It is agreed that proposals for structural repairs to existing walls which support national roads shall be agreed with Mayo County Council and TII Bridge Management Section prior to the commencement of any development on-site and works shall be undertaken in accordance with the detailed agreed therein. I also highlight that a Technical Acceptance (TA) application will be made to TII in accordance with TII Publications DN-STR03001 (Technical Acceptance of Roads Structures on Motorways and Other National Roads) for the proposed 2.0x1.25m box culvert proposed under the N59 national road, prior to any proposed works in the road. I note that it is not proposed that the flood walls are connected structurally to the existing bridges but rather abut the bridge structures. It is proposed to consult with TII Bridge Management Section as part of the detailed design for the scheme and agree a suitable connection arrangement.

In relation to the conclusions of the EIAR, I concur with same.

I note that no significant effects on the material assets of the proposed development will occur during the demolition, construction and operational phase due to the correct procedures and outlined mitigations being implemented. Pollution control and other preventative measures have been incorporated into the project design to minimise adverse effects on the material assets. Mitigation by design has been the principal means which will reduce suspended sediment run-off arising from construction activities. Preventative measures are also included which are incorporated into the project CEMP.

The proposed development does not pose a significant risk to the existing local electricity infrastructure, water, wastewater or waste infrastructure.

The assessment also confirms that there will be no significant cumulative effects on the material assets as a result of the proposed development and other proposed projects.

Having regard to the examination of environmental information provided it is considered that there is no potential for significant environmental effects.

9.10. Material Assets: Land and Properties

Issues Raised

No issues have been raised with respect 'land take' and land use. I note the subject CPO Order and case file ACP-323060-25 which was submitted to ACP on the 16/07/2025, the assessment of which, should be read in conjunction with the subject planning report.

Examination of the EIAR

Context

Chapter 17 considers Material Assets: Land and Properties.

The study area for the Proposed Scheme is located within the town where there is a mix of land uses and activities typical of a town of this size including residential, retail, commercial, social, community and recreation. Outside of the urban area agriculture is the predominant land use.

There are approximately 50 no. private landholdings directly affected by the Proposed Scheme. These include residential properties, commercial properties and lands owned by Irish Rail, the ESB, Uisce Éireann, Mayo County Council, the Western Health Board, the Northwestern Regional Fisheries Board. In addition,

works will take place within the public domain on the roadbed/ road verge across various landholdings.

Potential Effects

The effects of the Proposed Scheme on properties are generally considered and assessed under:

- Temporary Land take
  - Temporary acquisition of those lands required for construction compounds for the duration of construction only.
  - Temporary working areas along the project scheme where additional space is required for the duration of construction only to facilitate the construction of permanent infrastructure.
- Permanent Land take

- Permanent acquisition associated with new FRS infrastructure, and which include land take and / or severance which is permanent.
- Permanent wayleave over the footprint of the new FRS infrastructure to ensure access can be facilitated during operation and maintenance period.
- Permanent right of way through lands to access permanent wayleaves during operation and maintenance period.

- No Land take.
- Where works fall within private ownership but are confined to the public road, there is no requirement to acquire the lands. Works are undertaken; in accordance with Section 66(4) of the Local Government Act 2001.

For lands temporarily required for construction, the principal construction impacts will be interruptions to property accesses (for example where a driveway might be resurfaced to align with new road levels) or temporary loss of use of a premises while works are underway.

The temporary land take for the Proposed Scheme consists of the temporary working area of 5.3ha from 20no. landholdings. The Proposed Scheme will involve the permanent acquisition of land of approximately 0.85ha from 11 no. landholdings and the procurement of permanent wayleaves of approximately 2ha from 37 no. landholdings and rights of way of approximately 0.3ha from six no. landholdings.

The area of land required for the Proposed Scheme does not have a significant effect when considered at a national or regional level. However, from a local or individual perspective, land take can be significant. The significance of the impact of each land take has been considered. For the vast majority of properties, the effects of the proposed land take are in the slight to moderate range. For 12 no. of properties the effects are significant to profound before mitigation.

Mitigation measures vary as required to address each individual land take, but generally include:

- Existing accesses to property, including homes and businesses, will be maintained during construction of the Proposed Scheme; otherwise, reasonable temporary access will be provided.

- Where necessary, suitable boundary fencing will be erected for the duration of the works.
- All lands temporarily acquired will be re-instated to pre-construction conditions unless otherwise agreed with the landowner.
- Boundary treatment for all lands permanently acquired will be provided to mirror pre-construction conditions unless otherwise agreed with the landowner.

The EIAR states that 'an assessment of the impact of the Proposed Scheme on properties is presented in Table 17-7 to table 17-10. Consultation with all potentially affected landowners is ongoing. Compulsory Purchase Order (CPO)/contractual agreements with those impacted will be in place prior to the commencement of the construction phase'.

For three no. of properties the effects are in the range **profound** post mitigation. I note the three riverfront /Commercial properties to the south west of the Salmon Weir, where a temporary working area and permanent wayleave to facilitate construction of flood wall on riverbank is proposed. A glass wall is to be provided as necessary to ensure no visual impact from building. The EIAR notes that the impact can only be mitigated through compensation under the statutory CPO process. I note the CPO Order and case file ACP-323060-25, the assessment of which, should be read in conjunction with the subject planning report. The applicant submits that the arrangements for compensation under the statutory CPO process will run in parallel to the planning application for the Proposed Scheme. This landowner agreement process is running in parallel to the planning decision process.

Overall, it is considered that the majority of land take effects of the Proposed Scheme are imperceptible to not significant. There are exceptions where eight properties are envisaged to experience moderate to slight effects post- mitigation. With as stated above 3 properties experiencing profound effects.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 17 Material Assets: Land and Properties and all the associated documents including the projected residual impacts following mitigation. I have inspected the site and the

surrounding area. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the magnitude of change for Ballina. Based on Ballina's current susceptibility to flooding in conjunction with the expected increase in future flooding, there is a strong need to develop an FRS to protect Ballina residents from serious flooding events and to preserve Ballina as an attractive town for development. Ballina has a long history associated with flooding because of the River Moy's high-water level, in conjunction with inadequate conveyance capacities of the smaller stream/channels and associated culverts. The highest observed water level recorded a height of 3.21 metred above Ordnance Datum (mOD)-Malin in 2014. Within this flood plain, a high number of receptors are currently at risk of damage. Approximately 228 residential and 69 commercial receptors are potentially affected by flooding within the River Moy catchment.

In relation to the conclusions of the EIAR, I concur with same.

If the Proposed Scheme does not proceed, land and properties required for the Proposed Scheme will remain in existing use and flooding events and the consequences arising can be expected to continue to impact on land uses.

9.11. Cultural Heritage

Issues Raised

No issues have been raised by observers with respect to cultural heritage.

Examination of the EIAR

Context

Chapter 18 of the EIAR considers the potential effects of the development on Cultural Heritage.

River Moy

The River Moy area largely comprises the urban built environs of Ballina town and consequently there is a high volume of recorded architectural heritage receptors (93 No.). Key architectural heritage receptors are Upper and Lower bridge, the Salmon Weir, and the quays along Emmett Street. In addition, there are two key groupings of recorded archaeological monuments in the area: the fourteenth century Augustinian Friary (also a protected structure together with present-day St Muredach's Cathedral) and a former bridge and gatehouse at the location of present-day Lower

Bridge. Nine unrecorded cultural heritage features were also identified in this area comprising a stone culvert, a cut stone drain, landing platform, stone access steps (3 No.), a stone pier and a Marian Shrine. It is noted that reference to a massacre of Gallowglasses in 1586 is cited to have occurred at the area of Ardnaree along the west banks of the Moy, and a recent commemoration memorial/art installation is noted that also reflects same.

Quignamanger

There are three recorded archaeological sites located within the area: two enclosures and a 19th century Knox monument on the Belleek Castle estate. The latter is also listed as a recorded architectural receptor while the Creteboom shipwreck is also a protected structure. Two unrecorded receptors have also been identified: Quay View House (levelled) and a townland boundary.

Bunree/Behy Road

There are four recorded archaeological sites located in this area: a prehistoric court tomb, a barrow site, a ringfort and a 13th century castle site in the grounds of the present-day Ballina Manor House. There are two recorded architectural heritage sites: Bunree road bridge and a derelict store/warehouse on the Downhill Road. Two unrecorded stone culverts were identified during field surveys.

Brusna (Glenree)

There are three archaeological receptors recorded in this area: two ringforts and one enclosure, while there are no recorded architectural heritage receptors. A total of nine unrecorded cultural heritage receptors were identified from desk and site-based surveys: two fording points, two weirs, Rathkip Bridge, a former Tuck Mill and a former Flax Mill, a townland boundary and the community amenity area of Rathkip (ringfort replica).

Tullyegan

There are no recorded archaeological sites located in this area. There is one recorded architectural heritage site: a railway bridge at Behybaun townland. Three unrecorded cultural heritage receptors were identified: an engine pumping house, Rahans Bridge and a townland boundary.

Potential effects

There are no identified significant effects on the Cultural Heritage resource as a result of Construction Phase for the Proposed Scheme.

A number of moderate effects at construction stage are noted, primarily for the Moy Area. This includes Bachelors Walk and Clare Street walling, Lower Bridge and Upper Bridge (indirect), the quays along Emmet Street, walling at Ridgepool Rd and the IFI building (forming part of the Salmon Weir designation) as well as four undesignated receptors (commemorative memorial, stone access steps/pier). For the Brusna (Glenree) area a possible weir identified from underwater surveys has a predicted moderate effect. The majority of the other works areas retain minor, no change, negligible or slight effects during the Construction Phase.

Mitigation

Applicable appropriate mitigation measures during the Construction Phase in relation to the identified Cultural Heritage impacts within the study area, largely include preservation by record for direct impacts (written / drawn / photographic / digital / photogrammetry surveys; built heritage surveys to include landscape setting; written/drawn cross-sections of exposed masonry walling, re-use of salvaged stone, submission of digital records to Irish Architectural Archive (IAA) and Ballina Library).

In addition to this it is proposed to carry out licenced archaeological monitoring of all ground reduction/topsoil stripping areas within the design footprint and works areas (including temporary storage/compound areas and in-river works areas), during construction stage. Furthermore, any predicted hydrological changes to water flow, will be routinely monitored to avoid potential scouring impact to Lower Bridge and Upper Bridge.

Any identified built heritage features sited along access routes or immediately adjacent to works areas/along streetscapes shall be protected by temporary hi-visibility fencing measures, where required, to avoid any inadvertent strike damage by vehicular movements.
All mitigation measures are subject to statutory prior agreement by National Monuments Service/National Museum of Ireland. Direct liaison with the local community will also be required to scope the feasibility and/or need for re-siting the Rathkip amenity area (replica ringfort) at an appropriate alternative location. Furthermore, any commemorative wall-mounted plaques or free-standing artwork

installed by the local community (in particular along Ridgepool Road) will require careful removal, temporary storage, and reinstatement post-works, in consultation with relevant local community groups. All mitigation measures are subject to statutory prior agreement by National Monuments Service/National Museum of Ireland.

Proposed construction stage mitigation, for Cultural Heritage impacts, is detailed in Table 18-50 – Table 18-54 of the EIAR.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 18 and all the associated documents and submissions on file in respect of Cultural Heritage. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the potential impacts on same.

In relation to the conclusions of the EIAR, I would generally concur with the conclusions of same. The most direct impact to the cultural heritage lies in Ridgepool Road walling, Bachelors Walk walling, Lower Bridge incl. inter alia protective temporary hi-visibility fencing and replacement wall and Clare Street flood walls (east bank). Overall, I am of the opinion that it is reasonable to conclude that the project would not result in any significant impacts on and that no significant adverse impact arises in relation to cultural heritage. I recommend that a condition with regard to archaeological appraisal of the site.

9.12. Landscape and Visual

Issues Raised

No issues have been raised with respect to landscape and visual amenity. I note that potential loss of existing trees, a laurel hedge and impact upon biodiversity has been raised.

Examination of the EIAR

Context

Chapter 19 considers Landscape and Visual. The local landscape character for the five sub-study areas was identified and characterised. The River Moy flows through the middle of Ballina's urban town centre. The Moy River is a valuable amenity to the

town economically, environmentally and as a tourism and community facility. The banks of the River Moy are a strong and distinctive feature of the town and forms a major part of the general character of the place. Furthermore, the river corridor, the 'Moy Quarter' is recognised as a 'character area' in the Draft Ballina Local Area Plan.

While all slightly differing in their local character, the Quignamanger Stream, the Bunree Stream and Tullyegan Stream are all found on the outskirts of Ballina Town. They are located in primarily or partially suburban residential areas but also include areas such as community facilities and industrial areas. In each of these sub-study areas the watercourses are barely visible and have a very minor part to play in defining the landscape character.

The Brusna River sub-study area is further outside Ballina Town and as such has a more rural and natural landscape character. The Brusna River has an important part in shaping the character of this sub study area, although it is surrounded by ribbon development, the Ballina Golf Course and the R294 Regional Road.

No landscape designations have been identified in either the Mayo County Development Plan or the Draft Ballina Local Area Plan

In terms of visual amenity only the Mayo County Development Plan has designated a scenic route running along the eastern bank of the River Moy.

Potential Effects

During construction (projected 36 month period) primarily vegetation removal, construction activity and construction site traffic and traffic management will result in adverse impacts and effects on landscape, landscape character and visual amenity, however these will be of short-term duration.

Chapter 5 - Project Description describes the construction methods proposed in more detail. Construction phase works will be visible to a varied extent depending upon the individual construction activities being undertaken at any given time.

Construction phase effects relate generally to the following activities that are common across the scheme:

• Presence of temporary works compounds at:

– Ballina Dairies site and adjacent boat club site.

– MCC lands on Barrett Street.

– Ridgepool Road.

– Behy Road.

– Bonniconlon Road.

- Tree removal, cutting, pruning and bankside maintenance along the River Moy, the Brusna River, the Quignamanger Stream, Bunree Stream and the Tullyegan Stream.
- Embankment construction on the River Brusna, Tullyegan Stream and the Quignamanger.
- Instream works in all five areas of the scheme.
- Demolition of existing flood walls.
- Excavation for flood wall foundations, removal of existing culverts and to allow for the installation of new culverts.
- Excavation for pumping stations on the River Moy at Barretts Street, Ridgepool Road, Clare Street and Bachelors Walk.
- Installation of a sediment control system consisting of e.g. trenches, settling ponds/tanks, silt fence, silt curtains.
- Bridge reinforcement work on the Brusna River.
- Remediation works.
- Landscape works.
- Traffic management measures.

The EIAR sets out that along the River Moy impacts and effects on landscape and visual amenity during year 1 of operation will be beneficial or neutral as the line of the proposed wall will follow that of the existing walls and the proposed public realm works will have a beneficial landscape and visual impact on the areas surrounding the river.

The changes along the Quignamanger Stream, the Bunree Stream and Tullyegan Stream will be so minor that the landscape and visual effects will be at most negligible to minor, not significant and neutral or beneficial.

Adjacent to the Brusna River the introduction of this more urban structure of the flood defence wall into this rural landscape will give rise to adverse landscape and visual effects. These effects are seen to be minor and not significant.

There will be maturing mitigation planting along the alignment wall, at year-15 contribute towards increased screening of some of the project components or less attractive areas exposed during required vegetation removal thereby reducing adverse effects compared with year-1 of operation.

Ten viewpoints were selected for photomontages and the existing visual amenity and sensitivity of the visual receptors (viewers) was evaluated for each view, for day one post construction and year 15 post construction. Effects on visual amenity is set out in section 19.5.2 of the EIAR and Residual Impacts effects on landscape and landscape character is set out in 19.6 of the EIAR. All effects for all views are considered ‘minor and not significant’, with the exception of one view at Cathedral Street (View point 6) which is a ‘medium magnitude of impact’, expected to arise to viewers of high sensitivity (the church congregation) resulting in a moderate to major and significant beneficial visual effect at year 1 of operation. A medium magnitude of impact will continue to be experienced by viewers of high sensitivity resulting in a moderate to major and significant beneficial visual effect at Year 15 of operation.

I note the EIAR sets out that the change in design and material as well as the function of the continuous raised plaza will have a beneficial landscape effect on Cathedral Rd. However, one slight adverse effect will be that due to the raised plaza and walls views of the river Moy will be partially concealed from the footpaths and buildings along Cathedral Road. At the Brusna (Glenree) River there will be loss of some mature, riverside trees and vegetation, flood walls and embankments are

required on both sides of the river upstream of the access bridge. The new flood defence walls and embankments will be introduced into the landscape adjacent to the R294 regional road and Rathkip/Shanaghy. The wall will be faced in stone to match that locally present in the surrounding area. This represents a direct adverse change. The introduction of the proposed flood wall as a built structure in particular

will be clearly apparent in its immediate vicinity of this rural landscape. Flood walls and embankments are required on the northwestern side of the river downstream of the bridge. The new flood defence walls and embankments will be introduced along the north-western bank of the River Brusna. The wall will be faced in stone to match that locally present in the surrounding area. This represents a minor direct adverse change. As these defences will be located between the river and adjacent property boundaries these changes will be apparent from a very limited area surrounding the works including the rear of a small number of dwellings. Taking into account the beneficial effects balanced with the adverse effects overall, a small magnitude of impact is considered to arise to this landscape of medium sensitivity resulting in a minor and not significant adverse effect.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 19 Landscape and Visual and all the associated documents including the Photomontages and proposed construction management plan. I have inspected the site and the surrounding area. I am satisfied that the information submitted in the EIAR adequately demonstrates an understanding of the magnitude of change for Ballina. Upon maturing of mitigation planting and having regard for mitigation measures in the design, only landscape and visual receptors at the River Brusna are assessed as experiencing minor and not significant adverse effects at year-15. I note in particular Vol C, Appendix 19.4 of the EIAR. Photomontages showing existing view, proposed view Day 1 and photomontage +15 years.

In relation to the conclusions of the EIAR, I concur with same. The nature of the works are instream minor and are generally screened from surrounding views, by virtue of the topography and vegetation. While there will be change at a very localised level, by virtue of loss of street trees, a laurel hedge and mature trees and the introduction of the proposed flood wall, I would agree that that the overall impact on the wider landscape is as described in the EIAR, the severest being ‘a minor to moderate and not significant adverse effect’.

9.13. Interactions and Cumulative Effects

Chapter 20 addresses significant interactions of impacts between each of the separate disciplines. Table 20-1 provides, via a matrix table, the main interactions between the various aspects of the environment with potential for impacts at construction and operation phase. The major interactions between the environmental topics have been covered, where applicable, under the relevant chapters within the EIAR.

Interacting factors are expected to be greatest during the construction phase. Construction works have the potential to impact on population and human health in the form of dust and noise emissions, potential run off into surface and ground waters, traffic interruptions, short term visual effects and land take requirements.

There is also potential for impacts on terrestrial and aquatic biodiversity. However, as discussed within the respective chapters of this EIAR, there are no significant residual effects with the implementation of all mitigation and monitoring measures as detailed in the CEMP and Chapter 21 Schedule of Environmental Commitments. As such, there are no potential interactions between the various disciplines that may arise which are considered significant.

While the construction and operation of the Proposed Scheme itself will not have an impact on climate change, the Proposed Scheme will provide defence measures against flooding which is a direct consequence of climate change.

Overall positive impacts on flood risk are to be expected from flood relief schemes as the overall objective of such projects is to protect communities from flooding. The Ballina Flood Relief Scheme will benefit residential and commercial properties, public open spaces, aquatic and terrestrial biodiversity and the integrity of archaeology and Protected Structures.

Mitigation Measures

The EIAR sets out likely significant environmental impacts and where necessary proposes measures to mitigate or ameliorate such impacts. Due to the insignificant effects, few additional mitigation measures have been proposed from the respective disciplines. Best practice will be maintained and will be deemed sufficient for most cumulative effects. Mitigation through appropriate construction management plans is

proposed. This includes, inter alia, appropriate lighting during night-time works or no night-time works. Avoidance of otter resting areas (holts/couches) or compensatory artificial holts and resting areas. Avoidance of winter working hours to prevent disturbance to overwintering waterbirds. Avoidance of bat roosts of compensatory artificial roosts (e.g. bat boxes, bat houses etc.) Minimal removal of bankside vegetation. Consultation and collaboration with Uisce Éireann to offset timing of construction works. Phasing of works - deferral of any localised channel maintenance that involves dredging in the channels listed such that there is no concurrent dredging and flood relief scheme construction phase works.

Consultation and collaboration with OPW to offset timing of construction works. Works to adhere to OPW's environmental management guidelines for ADS works (OPW, 2019)

I am satisfied that no significant direct and indirect effects on the environment are likely, subject to the proposed mitigation measures, to avoid, prevent or reduce such effects for the proposed demolition, construction and operation of the Flood Defense Scheme, being adhered to.

9.14. Risks of Major Accidents or Disasters

Issues Raised

Moyvale Residents Association have raised concerns with respect to water safety concerns for children playing in the open green area to the front of Moyvale housing estate, should the existing culverted stream be opened up and exposed. Concern current design proposals include "angled banks" and "vertical walls" over beach like gradient at stream banks. TII have raised concern that a scour assessment and appropriate mitigation measures, where relevant, are carried out on four national road structures.

Examination of the EIAR

Context

Chapter 21 considers risks of major accidents and /or disasters. This section of the EIAR describes the vulnerability of the Proposed Scheme to risks of major accidents and/or disasters or to cause major accidents and/or disasters. Major accidents or disasters are hazards which have the potential to affect the Proposed Scheme and consequently have potential impacts on the environment. These include accidents

during Construction and Operation caused by operational failure and/or natural hazards. The assessment of the risk of major accidents and/or disaster considers all factors defined in the EIA Directive, i.e., population and human health, biodiversity, ornithology, land, soil, water, air quality, climate and material assets, cultural heritage and the landscape. A desk-study was completed to establish the baseline environment for which the proposed risk assessment has been carried out. Local and regional context has been established prior to undertaking the risk assessment to develop an understanding of the vulnerability and resilience of the area to emergency situations.

Potential Effects

From examining all potential risk events associated with the Proposed Scheme, scenarios that were considered to be of the highest risk in terms of the Proposed Scheme's vulnerability and its potential to cause such an event include but are not limited to events leading to structural collapse / damage to bridges, extreme weather causing damage to vulnerable newly laid bridge, potential for the Proposed Scheme to harm paddle boat users / pleasure boat users and an extreme flooding events if flood defence failure coincided with the Construction Phase. The assessment considered mitigation by design (where appropriate), and it was determined these are sufficient to mitigate the associated risk level(s) to be low.

Evaluation and Assessment: Direct and Indirect Effects

I have examined, analysed and evaluated the information provided in Chapter 21 risks of major accidents and /or disasters and all the associated documents. I have inspected the site and the surrounding area. I am satisfied that the information submitted in the EIAR, including the hydraulic modelling undertaken for the scheme, indicates it is necessary to reduce flood risk for Ballina.

I note that Scour Assessments have been carried out. I also note that it is agreed that proposals for structural repairs to existing walls which support national roads shall be agreed with Mayo County Council and TII Bridge Management Section prior to the commencement of any development on-site and works shall be undertaken in accordance with the detail agreed therein.

A Technical Acceptance (TA) application will be made to TII in accordance with TII Publications DN-STR-03001 (Technical Acceptance of Roads Structures on Motorways and Other National Roads) for the proposed 2.0x1.25m box culvert proposed under the N59 national road, prior to any proposed works in the road. Following receipt of TA, any and all works will be undertaken in accordance with the details contained within the acceptance document.

The current watercourse and the surrounding green area (to Moyvale Housing Estate) constitutes a primarily undesigned public realm space, with a partially open/partially culverted stream running along the southern side of the open/green space area. I note and agree with the applicant that waterbodies present a risk to all age groups. It is submitted by the applicant that the risk of retaining an open watercourse adjacent to a residential development (housing estate) must be balanced against the environmental, ecological and public realm gains derived from this approach. I agree that children (including young children) can benefit from the experience of growing up (including playing) in the vicinity of a well-designed and maintained public space that incorporates a natural watercourse – out of sight and out of mind does note quate to zero risk.
The hydraulic modelling undertaken for the scheme indicates that the culverted section of the Bunree through the Moyvale estate causes a constriction to flood flows, and therefore its removal is necessary to reduce this flood risk. Whilst it could be replaced with a larger culvert the removal of the culvert in this area leads to a potential biodiversity gain by de-culverting a section of the watercourse.

The applicant's response to the resident's association observation highlights that the current proposals do not represent the final design/treatment for this area. Subject to obtaining planning consent from the Board, Mayo County Council will embark on Stage 3 – detailed design. This will allow for detailing of the surface treatments to be applied to the proposed 'open' stream section, including the design of a mix of gradients, shrub/tree planting and discreet temporary fencing – pending the maturing of planted areas. Further consultation will be undertaken with the residents as part of the detailed design to address their safety concerns. I consider this response is acceptable and the matter can be resolved by way of condition. It is fundamental that Mayo County Council, would carry out the grading and landscaping works to the

Bunree stream along the boundary of the Moyvale Estate in a competent, safe and satisfactory manner.

In relation to the conclusions of the EIAR, I concur with same. The risk of a major accident and/or disaster during the construction of the Proposed Scheme is considered 'low' in accordance with 'A National Risk Assessment for Ireland 2020' (Department of Defence 2021). When the implementation of best practice measures and all proposed mitigation and monitoring measures detailed across the respective chapters is implemented, the residual effect(s) associated with the Construction, and Operational Phase of the Proposed Scheme are low risk.

9.15. Summary of Environmental Commitments

Examination of the EIAR

Context

Chapter 22 'Schedule of Environmental Commitments' of the EIAR describes the environmental effects that are likely to arise during the construction and operation of the proposed development. Table 22-1 – Table 22-24 sets out the mitigation measures required to alleviate identified effects of:

- Traffic and Transport
- Human health
- Aquatic Biodiversity
- Terrestrial Biodiversity
- Land, soil, Geology and Hydrogeology
- Water
- Air Quality
- Climate
- Noise and Vibration
- Material Assets: Waste and Utilities
- Material Assets: Land and Properties

- Cultural Heritage
- Landscape and Visual

Specific effects with respect to matters of likely significant effects, mitigation and residual effects for air quality, noise, traffic, visual impact etc. are dealt with in the respective assessments in the EIAR.

The Schedule of Environmental Commitments presents a summary of the mitigation measures identified as a result of undertaking the environmental impact assessments, as well as the mitigation measures detailed in the NIS which has been carried out to inform the Appropriate Assessment (AA) process.

It is clear that from the inception of the design and environmental assessment processes of the Proposed Scheme, the design team has strived to avoid, prevent and reduce adverse effects, which are incorporated into the design drawings and specifications for the Proposed Scheme that have been assessed as part of the EIAR and NIS.

Avoidance of impacts is most applicable at the earliest stages of a Proposed Scheme, whereas prevention has taken place during the design and environmental assessment process between the design team and EIA team.

This chapter provides a central location where a summary of measures from the preceding chapters are presented together for both ease of reference and inclusion in the contract documents at a later stage of the Proposed Scheme.

All of the mitigation commitments in the EIAR are incorporated in full into the CEMP. I am satisfied that the information submitted in the EIAR adequately demonstrates mitigation measures and environmental commitments for the construction phase and operation phase of the development.

9.16. Reasoned Conclusion

Having regard to the examination of environmental information contained above, to the EIAR provided by the applicant and the submissions received, the contents of which I have noted, I consider that the main significant direct and indirect effects of the proposed development on the environment are, and will be mitigated as follows:

- **Biodiversity:** The construction phase of the development at this location has the potential to impact upon biodiversity. Mitigation measures proposed include

the use of the construction and environmental management plan (CEMP), the appointment of a project ecologist/ecological clerk of works (ECOW), protection of water quality, phasing of works, management of construction waste, management of noise and dust, storage of materials, bio-security, management of alien invasive plant species, the protection of habitats and fauna, birds, bats, otter and badgers. During the operational phase of the Proposed Development, significant effects on habitats are not anticipated.

- **Water:** There is potential for sediment run off and accidental hydrocarbon spillage to surface water and groundwater arising from the construction phase of the Proposed Scheme. With the implementation of mitigation measures for water quality, as proposed, the Proposed Scheme will not cause deterioration of good water body status and does not jeopardise attainment of good status in any of the waterbodies in the study area. Extensive hydraulic modelling indicates the Proposed Scheme will result in a major beneficial impact on the receiving environment by reducing flooding during the operational phase. It will also reduce the likelihood of pollution events occurring due to flooding of urban areas. There is potential for positive, long-term impact on water quality through and downstream of Ballina because of reduction in risk and frequency of flood waters overtopping walls and being contaminated within the urban drainage area.

- **Traffic:** The Proposed Scheme will give rise to additional traffic movements, specifically heavy goods vehicles on the local road network creating a short-term inconvenience for local road users, residents, commercial properties, and traffic flow. Local short-term diversions and lane closures are also required to facilitate the construction works. There is a requirement for temporary and permanent access wayleaves for construction and maintenance machinery in some areas of the scheme for both the construction and operational phases. Access agreements will be in place with all relevant landowners prior to any construction and operation works. Traffic impacts will be short-term and temporary and will be adequately mitigated during construction by the implementation of measures set out in the EIAR, including the final CEMP, Construction Traffic Management Plan. Negative impacts are not anticipated to arise during the construction or operational phases of the development.

- **Landscape and Visual Effects:** Adverse effects on the landscape surrounding the River Moy will arise as a result of the presence of the temporary compounds at Ballina Dairies site and adjacent boat club site, on Ridgepool Road and the Mayo County Council lands on Barrett Street. Adverse effects on the landscape will arise as a result of the excavation and construction of flood defence walls along the River Moy. Taking into account the adverse effects associated with the construction activities along with implementation of mitigation measures and the short-term duration of the works overall (up to 36 months), a small magnitude of impact is considered to arise to this landscape of high sensitivity resulting in a minor to moderate and not significant adverse effect. During the operational phase, the Proposed Scheme will improve the open space, leisure and play facilities, particularly along the River Moy. The new flood defence wall will be introduced into the urban landscape of Ridgepool Road replacing an existing low concrete block wall and alternating sections of stone-clad wall and railings. The wall will be faced in stone to match that locally present in the surrounding area, representing a beneficial direct change. Taking into account the beneficial effects of public realm enhancements, new planting, new flood defence walls balanced with the adverse effects overall, a medium magnitude of impact is considered to arise to this landscape of high sensitivity resulting in a moderate to major and significant beneficial landscape effect.
- **Population and Human Health:** Potential significant positive impacts on the socio-economic profile of the area. This Proposed Scheme will protect homes and businesses in Ballina from flooding events. As a result of the Proposed Scheme, the Ballina area will become more attractive for residential and business purposes. The Proposed Scheme will also protect existing amenities, recreation facilities and tourism destinations within Ballina, promoting economic activity and economic growth in the town.

The EIAR has considered that the main significant direct and indirect effects of the proposed development on the environment would be primarily mitigated by environmental management measures, as appropriate. Notwithstanding the foregoing, there is a strong need to develop a Flood Relief Scheme to protect Ballina from serious flooding events, in line with policy, it is considered that these effects are not sufficient to warrant refusing permission for the development and are acceptable.

10.0 Water Framework Directive (WFD)

The applicants EIAR includes a Water Framework Directive Assessment. The assessment is contained in Appendix 12.1 Water Framework Directive Compliance Report. Appendix 12-1 Water Framework Directive Compliance Report and Appendix 9.8 Hydraulic Cross Section Data comprehensively addresses hydromorphological effects on waterbody status in relation to the Biological Quality Elements that define status.

The proposed Ballina FRS, involves new physical modifications to discrete reaches of the River Moy 120_IE_WE_34M021100 and four of its tributaries: Brusna (Glenree) River 030 IE_WE_34G010200, Bunree, Quignamanger (Dooyeaghhny or Cloonloughan) 010 IE_WE_34D310990, and Tullyegan 010 IE_WE_34T830920. It is also in proximity of Moy Estuary, transitional waterbody IE_WE_420_0300, Ballina groundwater IE_WE_G_0035 and downstream of the Moy Estuary transitional water is the Killala Bay coastal water body IE_WE_420_000.

The proposed development comprises the construction of new flood walls, repairs to quay wall, culverts, embankments, cutting, pruning and bankside maintenance and other works, in-stream and in proximity to the banks, see section 2.0 of this report above for full description of proposed works.

Water deterioration concerns, more so impact upon salmonids, otter, sea lamprey and scouring effects were raised in the planning appeal, see section 6.2 of this report above, issues raised by An Taisce and TII.

The Proposed Scheme, by design and with the implementation of mitigations around water quality protection implemented as prescribed in EIAR Chapters 9, section 9.5, Chapter 11 and chapter 12, section 12.5 (amalgamated in the CEMP), will not cause deterioration of status in any water body at individual quality element level nor will it compromise improvement to good status where necessary.

The WFD Assessment submitted with the scheme in conjunction with detailed information within the EIAR provides evidence to support the conclusion. The Proposed Scheme is compliant with WFD Article 4(1) objectives, does not require

Article 4(7) derogation, and can therefore be authorised under the WFD.

As set out in paragraph 9.6 above, 'Water' under 'WFD analysis' it is considered that preventative mitigation measures incorporated into the CEMP, such as, inter-alia:

- Limit suspended solids from entering watercourses by placing controls at all sources and pathways (inter-alia, buffer zones, sand bags, silt fencing, settling tanks and silt bags, dewatering, soak pits and infiltration trenches where feasible, stockpiling only allowed in designated areas)
- Limit cementitious particles from entering watercourses by placing controls at all sources and pathways (inter-alia, dedicated, suitably prepared concrete washout areas for concrete, signs will be erected, water collected in wash pits will be tankered off-site for treatment)
- Limit hydrocarbons from entering watercourses by placing controls at all sources and pathways.
- Limit construction debris entering watercourses due to riverside wall construction.
- Flood preparedness (inter-alia, checking water levels at Rahans gauge on a daily basis or twice daily during times of high flow when works are occurring in the vicinity of the River Moy, monitoring, developing an emergency response).
- Consultation with IFI.
- Restrict instream works to appropriate seasonal windows.

will:

- Prevent a deterioration in status of bodies of surface and groundwater;
- Not jeopardise the attainment of good surface water chemical status;
- Not permanently exclude or compromise the achievement of the objectives of the WFD in other bodies of water within the same river basin district; and
- Is consistent with other Community Environmental legislation.

I conclude that on the basis of objective information, that the proposed development will not result in a risk of deterioration on any water body (rivers, streams, lakes, groundwaters, transitional and coastal) either qualitatively or quantitatively or on a

temporary or permanent basis or otherwise jeopardise any water body in reaching its WFD objectives and consequently can be excluded from further assessment.

11.0 The likely significant effects on a European site

The areas addressed in this section are as follows:

- Compliance with Articles 6(3) of the EU Habitats Directive
- The Natura Impact Statement
- Appropriate Assessment

This assessment should be read in conjunction with Specialist Ecologist Report attached as Appendix 2 to this report.

Compliance with Articles 6(3) of the EU Habitats Directive

The Habitats Directive deals with the Conservation of Natural Habitats and of Wild Fauna and Flora throughout the European Union. Article 6(3) of this Directive requires 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. The competent authority must be satisfied that the proposal will not adversely affect the integrity of the European site.

The Natura Impact Statement (NIS)

The application was accompanied by an NIS which described the proposed development, the project site and the surrounding area. The NIS contained a Stage 1 Screening Assessment which concluded that a Stage 2 Appropriate Assessment was required. The NIS outlined the methodology used for assessing potential impacts on the habitats and species within four European Sites that have the potential to be affected by the proposed development. It predicted the potential impacts for these sites and their conservation objectives, it suggested mitigation measures, assessed in-combination effects with other plans and projects and it

identified any residual effects on the European sites and their conservation objectives.

The NIS was informed by the following studies, surveys and consultations:

A desktop study was carried out to collate information available on the proposed development site's natural environment. This comprised a review of relevant publications, data and datasets and the extensive list is set out in Chapter 11 'References' of the NIS. The following sources list is extensive and, inter alia, relevant references include:

- Mosses and Liverworts of Britain and Ireland: A Field Guide.' British Bryological Society, London.
- Bird Atlas 2007–11: The Breeding and Wintering Birds of Britain and Ireland. BTO Books, Thetford
- Regeneration and colonization abilities of aquatic plant fragments: effect of disturbance seasonality. Hydrobiologia 421, 31–39, 2000.
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- Caffrey J (2010) IFI Biosecurity Protocol for Field Survey Work. Inland Fisheries Ireland, Dublin.
- CIRIA (2006a) Control of Water Pollution from Linear Construction Projects Technical Guidance C648, CIRIA.
- CIRIA (2006b) Control of Water Pollution from Linear Construction Projects Site Guide C649, CIRIA.
- CIRIA (2001) Control of Water Pollution from Construction Sites. Guidance for Consultants and Contractors C532, CIRIA.
- Chucholl F., Fiolka F., Segelbacher G., Epp, L. S. (2021) eDNA Detection of Native and Invasive Crayfish Species Allows for Year-Round Monitoring and

Large-Scale Screening of Lotic Systems. Frontiers in Environmental Science 9:639380. doi: 10.3389/fenvs.2021.639380

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- DoEHLG (2009, rev. 2010) Appropriate Assessment of Plans and Projects in Ireland Guidance for Planning Authorities. Department of the Environment, Heritage and Local Government
- DPER (2021). National Development Plan 2021-2030. Department of Public Expenditure and Reform.
- EC (2000) Communication from the Commission on the Precautionary Principle. Office for Official Publications of the European Communities, Luxembourg
- EC (2006) Nature and biodiversity cases: Ruling of the European Court of Justice
- EC (2007) Guidance document on Article 6(4) of the 'Habitats Directive' 92/43/EEC – Clarification of the concepts of: alternative solutions, imperative

reasons of overriding public interest, compensatory measures, overall coherence, opinion of the Commission.

- NRA (2008a) 'Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes'. National Roads Authority, Dublin
- NRA (2008b). 'Guidelines for the Treatment of Otters Prior to the Construction of National Road Schemes'. National Road's Authority, Dublin.
- NRA (2010) Guidelines on the Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads. National Roads Authority, Dublin.
- NRA (2014) 'Guidelines for the Management of Waste from National Road Construction Proposed development'. National Roads Authority, Dublin.
- NPWS (2012) Conservation Objectives: Killala Bay/Moy Estuary SAC 000458. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013a) Ireland's Summary Report for the period 2008 – 2012 under Article 12 of the Birds Directive. National Parks and Wildlife Services. Department of Arts, Heritage and the Gaeltacht, Dublin, Ireland
- NPWS (2013b) Conservation Objectives: Killala Bay/Moy Estuary SPA 004036. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2013c) Conservation Objectives Supporting Document: Killala Bay/Moy Estuary Special Protection Area (Site Code 004036). Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.
- NPWS (2016) Conservation Objectives: River Moy SAC 002298. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

- NPWS (2019a). The Status of EU Protected Habitats and Species in Ireland. Volume 1: Summary Overview. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill.
- NPWS (2019b) The Status of EU Protected Habitats and Species in Ireland. Volume 2: Habitat Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill
- NPWS (2019c) The Status of EU Protected Habitats and Species in Ireland. Volume 3: Species Assessments. Unpublished NPWS report. Edited by: Deirdre Lynn and Fionnuala O'Neill
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- NPWS (2020b). NPWS. 2020b. Lough Conn and Lough Cullin SPA: Natura 2000 - Standard Data Form. National Parks and Wildlife Service, Department of Culture, Heritage and the Gaeltacht.
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- O'Connor, W. (2004) A Survey of Juvenile Lamprey Populations in the Moy Catchment, National Parks and Wildlife Service, Vol. Irish Wildlife Manuals No. 15.
- OPR (2021) Practice Note PN01: Appropriate Assessment Screening for Development Management. Office of the Planning Regulator, Dublin 7, Ireland.
- RPS (2021) Ballina Flood Relief Scheme Hydrology Report.

- RPS (2023a) Ballina Flood Relief Scheme, Appropriate Assessment Screening Report.
- RPS (2023b). Climate Change Adaptation Plan Report.
- RPS (2024) Ballina Flood Relief Scheme, Appropriate Assessment Screening Report – Ground Investigation Works
- TII (2013). Specification for Road Works Series 600 – Earthworks, Transport Infrastructure Ireland, Dublin
- TII (2020a). The management of Invasive Alien Plant Species on National Roads – Standard. GE-ENV01104. Transport Infrastructure Ireland.
- TII (2020b). The management of Invasive Alien Plant Species on National Roads – Technical Guidance. GEENV-01105. Transport Infrastructure Ireland.
- TII, (2022) Air Quality Assessment of Specified Infrastructure Projects – Overarching Technical Document PE-ENV-01106. Transport Infrastructure Ireland
- Water quality in Ireland. Environmental Protection Agency, Co. Wexford, Ireland.
- Long distance (>20 km) downstream detection of endangered stream frogs suggests an important role for eDNA in surveying for remnant amphibian populations.
- Wilber, D.H., Clarke, D.G., (2001) Biological effects of suspended sediments: A Review of suspended sediment impacts on fish and shellfish with relation to dredging activities in estuaries. North American Journal of Fisheries Management. Vol. 21, Issue 4, pp. 855-875.
- Woodward et al., 2019 Woodward, I., Thaxter, C.B., Owen, E. and Cook, A.S.C.P., (2019). Desk-based revision of seabird foraging ranges used for HRA screening. BTO research report, (724).
- Wyse Jackson, M., FitzPatrick, Ú., Cole, E., Jebb, M., McFerran, D., Sheehy Skeffington, M. & Wright, M. (2016). Ireland Red List No. 10: Vascular Plants.

National Parks and Wildlife Service, Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs, Dublin

- Mayo County Development Plan (2022 – 2028)
- Ballina LAP 2024 - 2030
- Consultations with Uisce Eireann
- Consultation with National Monuments Service (NMS)
- Consultation with Office of Public Works (OPW)
- Consultation with the National Parks and Wildlife Service (NPWS).
- Consultation with BirdWatch Ireland.

The NIS concluded that, subject to the implementation of best practice and the recommended mitigation measures, the proposed construction and operation of the Ballina Flood Relief Scheme would not adversely affect (either directly or indirectly) the integrity of the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228), either alone or in combination with other plans or projects, in light of the specific conservation objectives of each site.

A Screening Determination (See Appendix 1 of this Report)

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that it is not possible to exclude that the proposed development alone would give rise to significant effects on **River Moy SAC (002298), Killala Bay/Moy Estuary SAC (000458) Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)** European Site(s) in view of the sites conservation objectives. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is required on the basis of the effects of the project 'alone'. Appropriate Assessment is required.

This determination is based on:

- Objective information presented in the Screening Report,

- Standard pollution controls that would be employed regardless of proximity to a European site and effectiveness of same.
- Potential for direct hydrological connection / direct water quality impacts
- Distance from European Sites.

Appropriate Assessment Conclusion - Stage 2 (Appendix 1 of this Report)

The proposed development has been considered under the assessment requirements of Section 177U and 177AE of the Planning and Development Act 2000 and having regard to:

- The scientific information on file in respect of the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)
- The available information as presented in the submitted documents regarding habitats, species, ground and surface water pathways between the application site and the European sites and other information available, (incl. the desktop studies and field surveys), NPWS website and aerial imagery,
- The nature and scale of the proposed development and works and the nature of potential likely significant effects,
- The separation distances and the lack of connections between the proposed development site and the European sites examined in this assessment,
- The nature of the qualifying interests, special conservation interests and conservation objectives of the European sites,
- The potential impacts and bespoke mitigation measures proposed for all phases of the proposed development.

This conclusion is based on a complete assessment of all aspects of the proposed project. I consider that it is reasonable to conclude on the basis of the information on the file, which I consider adequate in order to carry out a Stage 2 Appropriate Assessment, that the proposed development, individually or in combination with other plans and projects would not adversely affect the integrity of the European sites including the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458),

and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228) or any other European site, in view of the site's Conservation Objectives.

Appropriate Assessment Conclusions

I am satisfied that the proposed development individually or in combination with other plans or projects would not adversely affect the integrity of any European sites in light of their conservation objectives (subject to the implementation of mitigation measures outlined in Appendix 1 of this Report and the applicants EIAR and NIS).

12.0 Recommendation

I recommend that the Ballina Flood Relief Scheme is approved. On the basis of the above assessment, I recommend that the Board approve the proposed development subject to the reasons and considerations below and subject to conditions including requiring compliance with the submitted details and with the mitigation measures as set out in the EIAR and NIS.

Reasons and Considerations

In coming to its decision, the Board is consistent with:

- Climate Action and Low Carbon Development Act 2015 (as amended) as amended by Climate Action and Low Carbon Development (Amendment) Act 2021
- Climate Action Plan 2024 (CAP 2024) and Climate Action Plan 2025 (CAP 2025),

In coming to its decision, the Board had regard to;

(a) the EU Habitats Directive (92/43/EEC),

(b) the European Union (Birds and Natural Habitats) Regulations 2011-2015,

(c) National Planning Framework 2018-2040 (NPF),

(d) The National Development Plan 2021-2030 (NDP),

(e) National Biodiversity Action Plan 2023-2030 (NBAP)

(f) Regional Spatial Economic Strategy for the Southern Region 2020-32 (RSES),

(g) the policies and objectives of the Mayo County Development Plan, 2022-2028,

(h) the policies and objectives of the Ballina Local Area Plan (LAP) 2024 – 2030

(i) the nature and extent of the proposed works as set out in the application for approval,

(j) the information submitted with the planning application including the Environmental Impact Assessment Report (EIAR), Appropriate Assessment Screening and Natura Impact Statement (NIS),

(k) the conservation objectives, qualifying interests and special conservation interests for the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)

(l) the likely consequences for the environment and the proper planning and sustainable development of the area in which it is proposed to carry out the proposed development and the likely significant effects of the proposed development on a European Site,

(m) The submissions and observations received in relation to the proposed development,

(n) The report of the Inspector.

Environmental Impact Assessment

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

a) the nature, scale and extent of the proposed development,

b) the Environmental Impact Assessment Reports (EIAR's) and associated documentation submitted in support of the application,

c) the Screening for Appropriate Assessment and Natura Impact Statement (NIS) and associated documentation submitted in support of the application,

d) the submissions received from the Observers and Prescribed Bodies, and

e) the Inspector's report.

The Board considered that the environmental impact assessment report, supported by the documentation submitted by the applicant, adequately considers alternatives to the proposed development, and identifies and describes adequately the direct, indirect, residual and cumulative effects of the proposed development on the environment.

The Board agreed with the 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 considered, and agreed with the Inspectors reasoned conclusions, that the main direct and indirect effects of the proposed development on the environment are and would be mitigated as follows:

- **Biodiversity:** The construction phase of the development at this location has the potential to impact upon biodiversity. Mitigation measures proposed include the use of the construction and environmental management plan (CEMP), the appointment of a project ecologist/ecological clerk of works (ECOW), protection of water quality, phasing of works, management of construction waste, management of noise and dust, storage of materials, bio-security, management of alien invasive plant species, the protection of habitats and fauna, birds, bats, otter and badgers. During the operational phase of the Proposed Development, significant effects on habitats are not anticipated.

- **Water:** There is potential for sediment run off and accidental hydrocarbon spillage to surface water and groundwater arising from the construction phase of the Proposed Scheme. With the implementation of mitigation measures for water quality, as proposed, the Proposed Scheme will not cause deterioration of good water body status and does not jeopardise attainment of good status in any of the waterbodies in the study area. Extensive hydraulic modelling

indicates the Proposed Scheme will result in a major beneficial impact on the receiving environment by reducing flooding during the operational phase. It will also reduce the likelihood of pollution events occurring due to flooding of urban areas. There is potential for positive, long-term impact on water quality through and downstream of Ballina because of reduction in risk and frequency of flood waters overtopping walls and being contaminated within the urban drainage area.

- **Traffic:** The Proposed Scheme will give rise to additional traffic movements, specifically heavy goods vehicles on the local road network creating a short-term inconvenience for local road users, residents, commercial properties, and traffic flow. Local short-term diversions and lane closures are also required to facilitate the construction works. There is a requirement for temporary and permanent access wayleaves for construction and maintenance machinery in some areas of the scheme for both the construction and operational phases. Access agreements will be in place with all relevant landowners prior to any construction and operation works. Traffic impacts will be short-term and temporary and will be adequately mitigated during construction by the implementation of measures set out in the EIAR, including the final CEMP, Construction Traffic Management Plan. Negative impacts are not anticipated to arise during the construction or operational phases of the development.
- **Landscape and Visual Effects:** Adverse effects on the landscape surrounding the River Moy will arise as a result of the presence of the temporary compounds at Ballina Dairies site and adjacent boat club site, on Ridgepool Road and the Mayo County Council lands on Barrett Street. Adverse effects on the landscape will arise as a result of the excavation and construction of flood defence walls along the River Moy. Taking into account the adverse effects associated with the construction activities along with implementation of mitigation measures and the short-term duration of the works overall (up to 36 months), a small magnitude of impact is considered to arise to this landscape of high sensitivity resulting in a minor to moderate and not significant adverse effect. During the operational phase, the Proposed Scheme will improve the open space, leisure and play facilities, particularly along the River Moy. The new flood defence wall will be introduced into the urban landscape of Ridgepool Road replacing an

existing low concrete block wall and alternating sections of stone-clad wall and railings. The wall will be faced in stone to match that locally present in the surrounding area, representing a beneficial direct change. Taking into account the beneficial effects of public realm enhancements, new planting, new flood defence walls balanced with the adverse effects overall, a medium magnitude of impact is considered to arise to this landscape of high sensitivity resulting in a moderate to major and significant beneficial landscape effect.

- **Population and Human Health:** Potential significant positive impacts on the socio-economic profile of the area. This Proposed Scheme will protect homes and businesses in Ballina from flooding events. As a result of the Proposed Scheme, the Ballina area will become more attractive for residential and business purposes. The Proposed Scheme will also protect existing amenities, recreation facilities and tourism destinations within Ballina, promoting economic activity and economic growth in the town.

The EIAR has considered that the main significant direct and indirect effects of the proposed development on the environment would be primarily mitigated by environmental management measures, as appropriate. Notwithstanding the foregoing, the Ballina Flood Relief Scheme, will protect Ballina residents from serious flooding events and will preserve Ballina as an attractive town for development. Ballina has a long history of flooding events because of the River Moy's high-water levels, in conjunction with inadequate conveyance capacities of the smaller stream/channels and associated culverts. The FRS is in line with policy, it is considered that these effects are not sufficient to warrant refusing permission for the development and are acceptable.

Appropriate Assessment

The Board agreed with and adopted the screening assessment and conclusion carried out in the Inspector's report that the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228), are the only European Sites in respect of which the proposed development has the potential to have a significant effect.

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 development for the affected European Sites, namely the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228), in view of the site's 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:

i. the likely direct and indirect impacts arising from the proposed development both individually or in combination with other plans or projects,
ii. the mitigation measures which are included as part of the current proposal, and
iii. the conservation objectives for the European Sites.

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

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

Proper Planning and Sustainable Development/Likely effects on the environment

It is considered that, subject to compliance with the conditions set out below, the proposed development would not have significant negative effects on the environment or the community in the vicinity, would not give rise to a risk of pollution, would not be detrimental to or adversely impact upon aquatic or terrestrial biodiversity, would not be detrimental to the visual or landscape amenities of the area, would not seriously injure the amenities of property in the vicinity, would not

adversely impact on the cultural, archaeological and built heritage of the area, would not interfere with the existing land uses in the area and would not interfere with traffic and pedestrian safety. The proposed development would, therefore, be in accordance with the proper planning and sustainable development of the area.

13.0 Recommended Conditions

Conditions

1. The proposed development shall be carried out and completed in accordance with the plans and particulars lodged with the application, except as may otherwise be required in order to comply with the following conditions. Where any mitigation measures or any conditions of approval require further details to be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

   Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment**.**

2. A pedestrian access from the open space area, south of the Moyvale estate / Moyvale Park to the N59, shall be retained at or in proximity to the existing pedestrian access location. Detailed design indicating the pedestrian access in conjunction with the proposed 'open' stream section, including the design of a mix of gradients, shrub/tree planting and discreet temporary fencing shall be prepared by or on behalf of the local authority, these details shall be placed on the file and retained as part of the public record.

   Reason: In the interest of clarity and the proper planning and sustainable development of the area and to ensure the protection of the environment**.**

3. Prior to the commencement of development, the local authority, or any agent acting on its behalf, shall prepare in consultation with the relevant statutory agencies, a Construction Environmental Management Plan

(CEMP), incorporating all mitigation measures indicated in the Natura Impact Statement and the CEMP submitted with the application and demonstration of proposals to adhere to best practice and protocols. The CEMP shall include:

a) Location of the site and material compounds including areas identified for the storage of construction waste,

b) Location of areas for construction site offices and staff facilities,

c) Intended construction practice for the development, including hours of working and the season of works (to avoid any impacts on spawning salmon or trout),

d) Means to ensure that surface water run-off is controlled in line with a Sediment Control Plan, such that no deleterious levels of silt or other pollutants enter local surface water drains or watercourses,

e) Containment of all construction related fuel and oil within specifically constructed bunds to ensure that fuel spillages are fully contained,

f) The management of construction traffic and off-site disposal of construction waste,

g) Details of appropriate mitigation measures for noise, dust and vibration, and monitoring of such levels,

h) Specific measures as to how the measures outlined in the CEMP will be measured and monitored for effectiveness, and

i) A record of daily checks that the works are being undertaken in accordance with the CEMP shall be maintained on file as part of the public record.

Reason: In the interest of protecting the environment, and in the interest of public health.

4. The local authority shall facilitate the archaeological appraisal of the site and shall provide for the preservation, recording and protection of archaeological materials or features which may exist within the site. In this regard, the developer shall:

- Employ a suitably qualified archaeologist prior to the commencement of development. The archaeologist shall assess the site and monitor all site development works. The assessment shall address the following issues:
- The nature and location of archaeological material on the site, and
- The impact of the proposed development on such archaeological material.

Complete a detailed archaeological excavation informed by additional test excavation across the whole phase of works to be completed prior to any construction staring on site. In addition, an updated Archaeological Impact Assessment should be completed.

Complete a report, containing the results of the above assessments, regarding any further archaeological requirements (including, if necessary, archaeological excavation). This report shall then be submitted to the Department of Housing, Local Government and Heritage within any proposals agreed prior to commencement of construction works. Following this the local authority will provide suitable arrangements acceptable to the Department of Housing, Local Government and Heritage for the recording and removal of any archaeological material which it is considered appropriate to move.

Reason: In order to conserve the archaeological heritage of the site and secure the preservation (in situ or by record) and protection of any archaeological remains that may exist within the site.

5. A suitably qualified Ecological Clerk of Works shall be retained by the local authority to oversee pre-commencement surveys, site clearance, in-stream works, and construction of the proposed development. The ecologist shall have full access to the site as required and shall oversee the implementation of mitigation measures. Upon completion of works, an ecological report of the site works shall be prepared by the appointed Ecological Clerk of Works to be kept on file as part of the public record.

Reason: In the interest of biodiversity and the protection of European Sites.

6. The mitigation measures contained in the submitted Natura Impact Statement (NIS) shall be implemented.

   Reason: To protect the integrity of European sites.

7. The mitigation measures submitted in the submitted Environmental Impact Assessment Report (EIAR) shall be implemented.

   Reason: To protect the environment.

I confirm that this report represents my professional planning assessment, judgement and opinion on the matter assigned to me and that no person has influenced or sought to influence, directly or indirectly, the exercise of my professional judgment in an improper or inappropriate way.

Fiona Fair
Senior Planning Inspector
23.09.2025

APPENDIX 1

Template 2: Standard AA Screening Determination Template
Test for likely significant effects

Screening for Appropriate Assessment
Test for likely significant effects

This report should be read in conjunction with Specialist Ecologist Report attached as Appendix 2 to this report.

Step 1: Description of the project and local site characteristics

The application is being made by Mayo County Council pursuant to Section 175 (3) and Section 177AE of the Planning and Development Act, 2000 (as amended). Accordingly, an Environmental Impact Assessment Report (EIAR) and a Natura Impact Statement (NIS) have been prepared in respect of the proposed development. Refer to Inspectors report R322329-25 for further detail. I have considered the application to undertake flood relief works along and/or in the vicinity of the River Moy and the following tributaries: Quignamanger Stream, Bunree (Behy Road) Stream, Brusna River and the Tullyegan Stream, in light of the requirements of S177AE of the Planning and Development Act 2000 as amended.

Ballina is located on the River Moy just upstream of the Moy Estuary. Ballina town consists of residential and commercial properties and associated infrastructure while the surrounding landscape is primarily agricultural with residential properties and associated infrastructure.
The reach of the Moy downstream of the Salmon Weir in Ballina is tidally influenced. There are several tributaries of the River Moy flowing within the town including the Quignamanger Stream, Bunree Stream (known locally as the Behy Road Stream), Brusna River, Tullyegan Stream and Knockanelo Stream. Ballina Town is a designated Key Town (Tier 1) as per the Development Plan and functions as the main economic driver for a large area of north Mayo and parts of west Sligo.

The River Moy rises in Sligo's Ox Mountains and is roughly 100 km long. For the greater part of its length, it flows south-westward, entering County Mayo and flowing near Swinford before passing through Foxford then turning north near the village of Kilmore and onward to Ballina Town, where it enters the Atlantic Ocean at Killala Bay along the Mayo-Sligo border.
The River Moy is known for its exceptional salmon fishery, with Ballina referred to as "The Salmon Capital of Ireland".

Sections of reaches along the River Moy are heavily modified. The Salmon Weir footbridge, Salmon Weir, Upper Bridge and Lower Bridge all span the entire width of the river in Ballina town and thus influence the flow regime within the river channel. The Salmon Weir pedestrian bridge is supported by a single pier in the centre of the channel, while the Salmon Weir itself spans 9 piers in total.

The Lower Bridge (originally New Bridge) is a four-arch road over river bridge built 1833-35 spanning the River Moy. The Upper Bridge (originally Arran Bridge) is a five-arch road over river bridge built 1835-36, spanning the River Moy at the southern end of Ballina town environs. Further south, the Salmon Weir which is recorded by Lewis c. 1837 as extant (and rebuilt) is an important element of the built heritage fabric of Ballina. It has been subject to improvement/restoration works in 2010/11.

There are also several bridges and structures to support road and rail routes across the tributaries to the River Moy.

The tributaries which form part of the Proposed Scheme are also heavily modified with culverts, except for the Brusna River. The Quignamanger Stream additionally has an existing diversion culvert operating in the lower reach before discharging into the Moy via a culvert under Quay Road. The Bunree Stream conveys flow via numerous culverts. The Tullyegan Stream incorporates several short culverts. The Proposed Scheme overlaps (within the proposed scheme area)with three Natura 2000 sites: - The River Moy SAC (site code: 002298), - Killala Bay/Moy Estuary SAC (site code: 000458) and - Killala Bay/Moy Estuary SPA (site code: 004036). The Proposed Scheme is located upstream but in the same groundwater body with the following Natura 2000 site: - Lough Conn and Lough Cullin SPA (Site Code: 004228) Located approximately 4.7km west, as the crow flies, from Ballina town centre	
Brief description of project	The proposed flood relief works will comprise: • Along the River Moy, the proposed flood walls will generally follow the alignment of existing walls and will tie into existing walls, bridges and/or high ground along the banks of Ridgepool Road, Cathedral Road, Clare Street, Emmet Street and Bachelors Walk. The proposed works on the east bank of the River Moy include flood walls of up to 1.3 m height, an increase of up to 0.5m on the existing walls. The existing Weir Building on Ridgepool Road will form part of the flood defence measures and will be waterproofed as necessary. A new pedestrian access point to the river will be provided adjacent to the Weir Building. The proposed floodwall will route behind the religious grotto on Clare Street. The plaza opposite St. Muredach's Cathedral along Cathedral Road will be modified, including the provision of a raised platform to a height of approximately 0.8 m. The existing pedestrian and boat accesses to the river will be maintained and an upgraded accessible access and boat access will be provided. The proposed works on the west bank of the River Moy include flood walls of up to 1.3 m height, an increase of up to 0.6m on the existing walls. Glass walls will be installed in front of the Ballina Manor Hotel/ apartments and the IFI Building. At Emmet Street, the existing railings will be replaced with a combination of new flood walls and glass walls. At the existing historic steps, 900mm glass walls will be installed. The remaining walls on Emmet Street will be removed and reconstructed using existing stone. Adjacent to the Salmon Weir and the Ballina Arts Centre, realignment of the temporary groyne is proposed. New surface water sewers will be installed along all road sections adjacent to new flood walls on the River Moy. This includes Ridgepool Road, Barrett Street, Cathedral Road, Emmet Street, Bachelors Walk and Clare Street.

	New outfalls to the River Moy will be installed with petrol interceptors and flap valves. Underground surface water pumping stations with a kiosk at ground level will be installed at strategic points to manage excess water during flood events. • Along the Quignamanger Stream, the proposed works include the replacement of the existing 0.9 m piped diameter diversion culvert with a larger 1.5 m diameter piped culvert for part of the upstream section and a 2 m wide by 1 m deep box culvert along the downstream section. Flood walls will be installed along the open reach of the channel upstream of Quay Road. The flood walls will have a maximum height of 1.1 m. The culvert under Quay Road which conveys water to the River Moy will be upgraded to a 2 x 1 m box culvert. The existing culvert downstream of Quay Road will be removed to allow provision for an open channel discharge to the River Moy. • Along the Bunree (Behy Road) Stream, the proposed works include the installation of a new culvert to replace the existing culverted and open channel sections. A new 1.5 m culvert will be installed upstream and will increase to a 1.8 m diameter culvert downstream. Existing property boundaries will be removed and new boundaries provided further within the property. The culvert will further increase to a 2m x 1.25m square culvert at the N59 crossing. Local road raising will be undertaken at this location. A culverted section downstream of the N59 at Moyvale Park, will be removed and the open channel reinstated. The banks of this open channel will be regraded to form a gentle/ stepped slope. • Along the Brusna River, the proposed works include hard defences consisting of flood walls and embankments. Flood walls and embankments are to be provided on both sides of the river upstream of the access bridge to Rathkip/Shanaghy. Flood walls and embankments are to be provided on the north bank of the river downstream of the bridge. The maximum height of flood walls and embankment is approximately 1.7 m. A reinforced concrete beam spanning the river on the upstream side of the bridge is to be provided. Scour protection is proposed along the riverbed in the vicinity of the bridge. Replacement bank retaining walls are also to be provided in the vicinity of the bridge. Two otter holts are to be constructed downstream of the bridge crossing on the left bank. • Along the Tullyegan Stream, proposed flood walls on the north bank are to be constructed to the same height as the existing walls which range from 1.4 to 2.96m. The proposed embankment on the north bank has a maximum height of 1.5m. Proposed flood walls on the southern bank of the stream have a maximum height of 1m. New gated construction and emergency access points will be provided from the N26 and L1122 roads.

	• Temporary Construction Compounds shall be located at: Ballina Dairies site and adjacent boat club site, Mayo County Council lands on Barrett Street, sites located on Ridgepool Road, Behy Road and Bonniconlon Road. • Provision of landscaping works as required throughout the scheme and all associated fencing, site development, advance works, accommodation works and all associated works.
Brief description of development site characteristics and potential impact mechanisms	Potential effects to: • Water quality degradation – Hydrology. • Water Quality degradation – Hydrogeological Effects • Disturbance/displacement of species; and • Habitat loss, alteration or fragmentation; **Construction Phase** • Temporary or permanent loss of supporting habitat (e.g. for resting, foraging etc.) due to in-stream and bankside construction works on the River Moy/Moy Estuary and Brusna (Glenree) River. • Barriers to migratory or commuting species due to instream works on the River Moy and/or Moy estuary and tributaries. In-stream works in the River Moy/Moy Estuary could create a barrier to migratory or commuting species. • Surface water run-off containing silt, sediments and/or other pollutants into nearby watercourses (River Moy, Moy Estuary, Tullyegan, Brusna, Bunree, Quignamanger) could affect the quality of aquatic/wetland habitats and species. • Uncontrolled releases of dust and/or other pollutants to air due to earthworks. • Discharge to ground - runoff water containing silt, sediments and/or other pollutants into the local groundwater. Groundwater contamination could affect the quality of aquatic/wetland habitats and species. • Increased noise, vibrations or human presence as a result of construction activity. • Increased lighting in the vicinity of the Proposed Scheme as a result of construction activity. • Spread of IAPS. The spread of IAPS could affect supporting habitat adjacent to the Proposed Scheme or result in increased sedimentation of watercourses. • Presence of machinery and other construction activities creating an increased mortality risk to QI/SCI species. Vegetation clearance and in-stream works present a mortality risk via direct contact with machinery and/or equipment. Open excavations also pose a mortality risk should entrapment occur. **Operational Phase**

	• Alterations to hydraulic character of River Moy and Brusna (Glenree), i.e., hydrology, water velocity, morphology as a result of new flood walls/embankments. • Habitat fragmentation as a result of bridge repair works at Rathkip/Shanaghy - Brusna (Glenree) River. • The presence of personnel and machinery associated with channel maintenance may result in disturbance of QI/SCI species. • Changes to water quality associated with new flood defences and new surface water drainage to the River Moy.
Screening report	Yes
Natura Impact Statement	Yes
Relevant submissions	**Submissions/observations** Submission were received from: • An Taisce, • TII • Uisce Eireann • Moyvale Residents A detailed summary of all the observations is set out in section 6.0 of the planning assessment report R322329-25. A summary of AA issues raised include: • Note the “near threatened” and protected status of sea lamprey and request ACP to consider closely the instream works proposed. • Recommend the project be assessed against Article 4 of the Wa Framework Directive to determine whether the project may • cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwat status or of good ecological potential and good surface or groun water chemical status. • Highlight the designation of River Moy as Salmonid River and presence of salmon in the Zone of Influence of the scheme, and therefore highlighting that the robustness of mitigation measures in the EIAR for salmon are considered • Importance of Consultation with Inland Fisheries Ireland (IFI) an National Parks and Wildlife Service (NPWS) as set out in Mayo County Development Plan Objectives in relation to Flood Relief Measures. • Query the necessity to remove some trees within riparian habita upstream of Rathkip/Shanaghy Bridge. • Recommend environmentally friendly lighting with a limiting

	colour temperature to less than 2,700 Kelvins • Concerns regarding the removal of otter habitat to facilitate the proposal and request ACP to review the proposed remediation conditions.

Step 2. Identification of relevant European sites using the Source-pathway-receptor model

European Site (code)	Qualifying interests[1] Link to conservation objectives (NPWS, date)	Distance from proposed development (km)	Ecological connections[2]	Consider further in screening[3] Y/N
River Moy SAC (002298) (NPWS, 2016	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO002298.pdf Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) [6510] Active raised bogs [7110] Degraded raised bogs still capable of natural regeneration [7120] Depressions on peat substrates of the Rhynchosporion [7150] Alkaline fens [7230] Old sessile oak woods with Ilex and Blechnum in the British Isles [91A0] Alluvial forests with Alnus glutinosa and Fraxinus excelsior (Alno-Padion, Alnion incanae, Salicion albae) [91E0] Austropotamobius pallipes (White-clawed Crayfish) [1092] Petromyzon marinus (Sea Lamprey) [1095] Lampetra planeri (Brook Lamprey) [1096] Salmo salar (Salmon) [1106] Lutra lutra (Otter) [1355]	The Proposed Scheme is located within the River Moy SAC with works required within the river itself in addition to several tributaries which flow into the SAC. There is direct hydrological connectivity between the scheme area and the SAC.	The scheme area intersects two groundwater bodies therefore there is potential for hydrogeological connectivity between the SAC and the scheme area. Yes. Via hydrological and hydrogeological pathways during the Construction and/or Operational Phases and via direct disturbance during the Construction and/or Operational Phases An active otter holt was found within 10m of works along the Brusna river and as such noise and vibration has the potential to impact upon otter within the holt. This QI is brought forward for further assessment. The spread of IAPS due to the proposed works has the potential to cause the degradation of habitat	Yes for Sea Lamprey, Brook Lamprey, Salmon, Otter, and White-clawed crayfish, only.

			(e.g. bankside habitat) used by this species.	
Killala Bay/Moy Estuary SAC (000458) (NPWS, 2012)	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO000458.pdf Estuaries [1130] Mudflats and sandflats not covered by seawater at low tide [1140] Annual vegetation of drift lines [1210] Vegetated sea cliffs of the Atlantic and Baltic coasts [1230] Salicornia and other annuals colonising mud and sand [1310] Atlantic salt meadows (Glauco-Puccinellietalia maritimae) [1330] Embryonic shifting dunes [2110] Shifting dunes along the shoreline with Ammophila arenaria (white dunes) [2120] Fixed coastal dunes with herbaceous vegetation (grey dunes) [2130] Humid dune slacks [2190] Vertigo angustior (Narrow-mouthed Whorl Snail) [1014] Petromyzon marinus (Sea Lamprey) [1095] Phoca vitulina (Harbour Seal) [1365]	The Proposed Scheme is located within the Killala Bay/Moy Estuary SAC with works required within the Moy estuary (IE_WE_420_0300) itself. Therefore, there is direct downstream hydrological connectivity between the Proposed Scheme area and SAC. The Proposed Scheme area and SAC are both located within the Ballina (IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SAC and the Proposed Scheme area.	Yes. Via hydrological and hydrogeological pathways during the Construction and/or Operational Phases and via direct disturbance during the Construction and/or Operational Phases	Yes, for Estuaries, Mudflats and Sandflats not covered by seawater at low tide, Atlantic Salt Meadows, Sea Lamprey, Harbour seal.
Killala Bay/Moy Estuary SPA (004036) (NPWS 2013b)	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004036.pdf Ringed Plover (Charadrius hiaticula) [A137] Golden Plover (Pluvialis apricaria) [A140] Grey Plover (Pluvialis squatarola) [A141] Sanderling (Calidris alba) [A144] Dunlin (Calidris alpina) [A149] Bar-tailed Godwit (Limosa lapponica) [A157] Curlew (Numenius arquata) [A160] Redshank (Tringa totanus) [A162] Wetland and Waterbirds [A999]	The Proposed Scheme is located within the Killala Bay/Moy Estuary SPA with works required within Moy estuary (IE_WE_420_0300) itself. Therefore, there is direct connectivity between the Proposed Scheme area and the SPA. The Proposed Scheme area and SPA are both located within the Ballina	Yes. Via hydrological and hydrogeological pathways during the Construction and/or Operational Phases and via direct disturbance during the Construction and/or Operational Phases	Yes for Ringed Plover, Grey Plover, Sandering, Dunlin, Bar-tailed godwit, Curlew, Redshank, Wetland and waterbirds.

		(IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SPA and the Proposed Scheme area.		
Lough Conn and Lough Cullin SPA (004228) (NPWS, 2025)	https://www.npws.ie/sites/default/files/protected-sites/conservation_objectives/CO004228.pdf Tufted Duck (Aythya fuligula) [A061] Common Scoter (Melanitta nigra) [A065] Common Gull (Larus canus) [A182] Greenland White-fronted Goose (Anser albifrons flavirostris) [A395] Wetland and Waterbirds [A999]	This SPA is located upstream of the Proposed Scheme area therefore no suitable hydrological connectivity between the Proposed Scheme area and the SPA exists. The SPA and scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body.	There is potential for hydrogeological connectivity between the SPA and the scheme area. However, the groundwater, flows towards the nearest rivers and lakes, therefore groundwater is most likely to flow from the Proposed Scheme to the River Moy. Consequently, it is not expected that there will be any hydrogeological impacts.	Yes for Tufted Duck, Common Scoter, Common gull and Greenland White fronted goose.

AA Screening matrix

Site name Qualifying interests	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
	Impacts	**Effects**
River Moy SAC (002298)(NPWS, 2016	**Construction Phase:** Temporary or permanent loss of supporting habitat (e.g. for resting, foraging etc.) due to in-stream and bankside construction works on the River Moy/Moy Estuary and Brusna (Glenree) River. Barriers to migratory or commuting species due to instream works on the River Moy and/or Moy estuary and tributaries. In-stream works in the River Moy/Moy Estuary could create a barrier to migratory or commuting species. Surface water run-off containing silt, sediments and/or other pollutants into	Receptors include SCI waterbirds, otter, harbour seal, white-clawed crayfish, salmon, sea lamprey and brook lamprey associated with the River Moy SAC. Degradation of water quality and aquatic habitats. Short term disturbance to sea lamprey habitats associated with temporary instream Short term disturbance to river margin habitats and salmonids associated with temporary instream access route Fish entrapment in cofferdams.

	nearby watercourses (River Moy, Moy Estuary, Tullyegan, Brusna, Bunree, Quignamanger) could affect the quality of aquatic/wetland habitats and species. Uncontrolled releases of dust and/or other pollutants to air due to earthworks. Discharge to ground - runoff water containing silt, sediments and/or other pollutants into the local groundwater. Groundwater contamination could affect the quality of aquatic/wetland habitats and species. Increased noise, vibrations or human presence as a result of construction activity. Increased lighting in the vicinity of the Proposed Scheme as a result of construction activity. Spread of IAPS. The spread of IAPS could affect supporting habitat adjacent to the Proposed Scheme or result in increased sedimentation of watercourses. Presence of machinery and other construction activities creating an increased mortality risk to QI/SCI species. Vegetation clearance and in-stream works present a mortality risk via direct contact with machinery and/or equipment. Open excavations also pose a mortality risk should entrapment occur. **Operational Phase:** Alterations to hydraulic character of River Moy and Brusna (Glenree), i.e., hydrology, water velocity, morphology as a result of new flood walls/embankments. Habitat fragmentation as a result of bridge repair works at Rathkip/Shanaghy - Brusna (Glenree) River. The presence of personnel and machinery associated with channel maintenance may result in disturbance of QI/SCI species.	Potential effects on fish Migration. Fisheries Enhancements The habitat for otters could deteriorate. The Proposed Scheme will result in the direct removal of two otter couches along Clare Street adjacent to the River Moy. It has the potential to disturb foraging, commuting, resting or breeding otter during the construction phase. Temporary loss of estuarine foraging habitat for overwintering waterbirds.

	Changes to water quality associated with new flood defences and new surface water drainage to the River Moy	
Yes	**Likelihood of significant effects from proposed development (alone): Y/N**	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Yes	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
Killala Bay/Moy Estuary SAC (000458) (NPWS, 2012)	**Impacts**	**Effects**
The Proposed Scheme is located within the Killala Bay/Moy Estuary SAC with works required within the Moy estuary itself.	Direct hydrological connection between the proposed site and the SAC, the proposed scheme is within the perimeter of the SAC. Impact to estuarine habitats of contaminated water into Killala Bay/Moy Estuary, during construction and/or operation. **Construction Phase & Operational Phase impacts are the same as stated, above, for the River Moy SAC.**	Receptors include: Estuaries, Mudfalts and Sandflats not covered by seawater at low tide, Atlantic Salt Meadows, Sea Lamprey, Harbour seal. Degradation of water quality and aquatic habitats. - It is possible that any water quality effects within the SPA may also affect the QI habitats - Potential for significant effects to the SPA Via hydrological and hydrogeological pathways.
Yes	**Likelihood of significant effects from proposed development (alone): Y/N**	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Yes	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
Killala Bay/Moy Estuary SPA (004036) (NPWS 2013b)	**Impacts**	**Effects**
The Proposed Scheme is located within the Killala Bay/Moy Estuary SPA with works required within the Moy estuary itself.	**T**he Proposed Scheme is located within the Killala Bay/Moy Estuary SPA with works required within Moy estuary (IE_WE_420_0300) itself. Therefore, there is direct connectivity between the Proposed Scheme area and the SPA. Via hydrological and hydrogeological pathways during the Construction and/or Operational Phases and via direct disturbance during the Construction and/or Operational Phases.	Receptors include: Ringed Plover, Grey Plover, Sandering, Dunlin, Bar-tailed godwit, Curlew, Redshank, Wetland and waterbirds. Degradation of water quality and aquatic habitats. - It is possible that any water quality effects within the SPA may also affect the QI habitats

	Construction Phase & Operational Phase impacts are the same as stated, above, for the River Moy SAC & Killala Bay/Moy Estuary SAC.	- Potential for significant effects to the SPA Via hydrological and hydrogeological pathways.
Yes	**Likelihood of significant effects from proposed development (alone): Y/N**	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Yes	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
Lough Conn and Lough Cullin SPA (004228) (NPWS, 2025)	**Impacts**	**Effects**
This SPA is located approximately 4.7km west, as the crow flies, from Ballina town centre.	This SPA is located upstream of the Proposed Scheme area, therefore no suitable hydrological connectivity between the Proposed Scheme area and the SPA exists. However they are in the same ground water body. Discharge to ground - runoff water containing silt, sediments and/or other pollutants into the local groundwater. Groundwater contamination could affect the quality of aquatic/wetland habitats and species. There is potential that noise and vibration associated with instream and/or bankside works for the construction phase of the Proposed Scheme could result in temporary disturbance and displacement effects on overwintering waterbirds in the vicinity of the proposed works areas.	Receptors Include: Tufted Duck, Common Scoter, Common gull and Greenland White fronted goose. Potential for direct/ indirect / ex-situ disturbance on SCI species during the Construction and/or Operational Phases. The works have the potential to result in temporary disturbance activities (noise, personnel, artificial lighting) which could affect the use of available habitat by wintering waterbirds for foraging, roosting and movement.
Yes	**Likelihood of significant effects from proposed development (alone): Y/N**	
	If No, is there likelihood of significant effects occurring in combination with other plans or projects?	
Yes	**Possibility of significant effects (alone) in view of the conservation objectives of the site***	
Step 4 Conclude if the proposed development could result in likely significant effects on a European site.		

It is not possible to exclude the possibility that the proposed development alone would result in significant effects on **River Moy SAC (002298), Killala Bay/Moy Estuary SAC (000458) Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)** from effects associated with:

- Water quality degradation – Hydrology.
- Water Quality degradation – Hydrogeological Effects
- Disturbance/displacement of species; and
- Habitat loss, alteration or fragmentation.

Construction of the Proposed Development within / in close proximity to river, stream, wetland and estuarine habitats has the potential to impact otter, harbour seal, white-clawed crayfish, salmon, sea lamprey and brook lamprey, bird SCI, wetland habitat and QI habitat. Potential for direct water quality impacts to **River Moy SAC (002298), Killala Bay/Moy Estuary SAC and (000458) Killala Bay/Moy Estuary SPA (004036)** during in-stream and bankside construction works. Noise and disturbance, arising from the presence of personnel, plant and machinery, noise generated by demolition and construction works, including the development of flood defences i.e. flood walls, embankments including adjacent areas required for the construction of such defences. The upgrade of existing flood management infrastructure e.g. culverts, including areas to be disturbed during such upgrade activities may disturb SCI waterbirds, otter, harbour seal, white-clawed crayfish, salmon, sea lamprey and brook lamprey habitats surrounding the Site. Any lighting used during the construction phase could also cause disturbance of QI' and SCI when foraging or roosting.
An appropriate assessment is required on the basis of the possible effects of the project 'alone'. Further assessment in-combination with other plans and projects is not required at screening stage.

In accordance with Section 177U of the Planning and Development Act 2000 (as amended) and on the basis of the information considered in this AA screening, I conclude that it is not possible to exclude that the proposed development alone would give rise to significant effects on **River Moy SAC (002298), Killala Bay/Moy Estuary SAC (000458) Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)** European Site(s) in view of the sites conservation objectives. It is therefore determined that Appropriate Assessment (stage 2) [under Section 177V of the Planning and Development Act 2000] is required on the basis of the effects of the project 'alone'. Appropriate Assessment is required.

This determination is based on:

- Objective information presented in the Screening Report,
- Standard pollution controls that would be employed regardless of proximity to a European site and effectiveness of same.
- Potential for direct hydrological connection / direct water quality impacts
- Distance from European Sites.

Template 3: Standard AA Template and AA Determination
Appropriate Assessment – This report should be read in conjunction with Specialist Ecologist Report attached as Appendix 2 to this report.

The requirements of Article 6(3) as related to appropriate assessment of a project under part XAB, sections S177AE of the Planning and Development Act 2000 (as amended) are considered fully in this section.

I conclude that the proposed development is likely to have a significant effect on The River Moy SAC (site code: 002298), Killala Bay/Moy Estuary SAC (site code: 000458), Killala Bay/Moy Estuary SPA (site code: 004036) and Lough Conn and Lough Cullin SPA (Site Code: 004228) 'alone' in respect of habitat loss and alteration impacts, water quality impacts including instream and bank-side construction works and noise disturbance/displacement impacts arising from the presence of personnel, plant and machinery, noise generated by demolition and construction works. There is potential for direct water quality impacts to The River Moy SAC (site code: 002298), Killala Bay/Moy Estuary SAC (site code: 000458), Killala Bay/Moy Estuary SPA (site code: 004036) during installation/construction of the flood relief scheme. In addition, there is potential for a temporary loss of roosting / foraging habitat for Common gull a QI / SCI of the Lough Conn and Lough Cullin SPA, due to removal of riparian woodland used for nesting/roosting by common gull.

I do not consider that any other European sites fall within the zone of influence of the project based on a combination of factors including the nature and scale of the project, the distance from the site to European sites, and any potential pathways which may exist from the development site to a European site, aided in part by the applicant's Appropriate Assessment Screening Report and NIS for the proposed development, the conservation objectives of Natura 2000 sites, no plausible impact pathway, the lack of suitable habitat for qualifying interests, as well as by the information on file and I have also visited the site.
The main elements of the proposed development are as follows:

Watercourse	Location	Description of Works
River Moy	Pedestrian Bridge to Salmon Weir	New flood walls
	Barrett Street	Proposed storm water pumping station
	Ridgepool	New flood walls Tanking of the Weir Building Additional access to the river Repairs to quay wall as necessary Proposed storm water pumping station.
	Cathedral Road	Raised plaza to act as flood defence incorporating public realm elements.

	Emmet Street	Removal and reconstruction of existing wall using original stone Replace existing railings with combination of new flood wall and glass wall.
	Clare Street/Howley Terrace	New flood walls Accessible access at existing angling area Proposed storm water pumping station
	Bachelors Walk	New flood walls Proposed storm water pumping station
	General	Tree removal, cutting, pruning and bankside maintenance.
Quignamanger Stream	Existing diversion culvert	New culvert
	Existing open reach	New flood walls Lowering of existing left bank wall Baffle/ stepped pool at D/S reach of drainage channel
	Outfall to River Moy	New culvert crossing of Quay Road and replacement of downstream culvert with open channel.
	General	Tree removal, cutting, pruning and bankside maintenance,
Bunree Stream	Existing culverts and open reaches along Behy Road from Behy Business Park to N59.	New culvert

	Existing culvert downstream of N59 - public open space	Replace existing culvert with open channel. Regrade channel bank where possible to achieve a stepped/more gentle slope
	Field bridge	New culvert
	General	Tree removal, cutting, pruning and bankside maintenance.
Brusna River	Rathkip/ Shanaghy Area	Flood walls and embankments
	Bridge Crossing	Beam to act as flood defence. Replacement of scour protection including bank retaining walls as required.
	General	Tree removal, cutting, pruning and bankside maintenance.
Tullyegan Stream	Between N26 and railway Crossing	Flood walls and embankment
	General	Tree removal, cutting, pruning and bankside maintenance.
Temporary Construction Compounds		Ballina Dairies site and adjacent boat club site, Mayo County Council lands on Barrett Street, sites located on Ridgepool Road, Behy Road and Bonniconlon Road.

The Applicants AA Screening included four European Sites in total. European sites located in proximity to the subject site include:

- The River Moy SAC (site code: 002298),
    - The Proposed Scheme is located within the River Moy SAC with works required within the river itself.
- Killala Bay/Moy Estuary SAC (site code: 000458),

    - The Proposed Scheme is located within the Killala Bay/Moy Estuary SAC with works required within the river itself.
- Killala Bay/Moy Estuary SPA (site code: 004036)
    - The Proposed Scheme is located within the River Moy Killala Bay / Moy Estuary SPA with works required within the river itself.

- Lough Conn and Lough Cullin SPA (Site Code: 004228)
    - Ballina Town is located c.4.7Km east of Lough Conn and Lough Cullin SPA
    - This SPA is located upstream of the Proposed Scheme area therefore no suitable hydrological connectivity between the Proposed Scheme area and the SPA exists.
    - The SPA and scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body.

As set out in AA Screening (see Template 2 attached as appendix) all four of the sites, were screened in for Stage 2 assessment. However, only certain QI and SCI of the European Sites within the ZoI of the proposed Scheme have been screened in for further assessment, namely:

- River Moy SAC - Sea lamprey, Brook lamprey, Salmon, Otter, White-clawed crayfish,
- Killala Bay / Moy Estuary SAC - Estuaries, Mudflats and Sandflats not covered by Seawater at Low tide, Atlantic Salt Meadows, Sea lamprey, Harbour Seal,
- Killala Bay / Moy Estuary SPA - Ringed plover, Golden plover, Grey plover, Sanderling, Dunlin, Bar-tailed godwit, Curlew, Redshank, Wetland and water birds,
- Lough Conn and Lough Cullin SPA - Tufted duck, Common scoter, Common gull, Greenland white fronted goose.

See Table 6-1 of the NIS. The Stage 1 Screening Appraisal also concluded that there was no potential pathway for impact from the Proposed Scheme on a number of QI and SCI of the River Moy SAC, Killala Bay/Moy Estuary SAC, and Lough Conn and Lough Cullin SPA, namely:

- River Moy SAC - Active raised bogs, degraded raised bogs still capable of natural regeneration, depressions on peat substrates of the Rhynchosporion, Alkaline fens, Old sessile oak woods with Ilex and Blechnum in the British Isles, Alluvial forests with Alnus glutinosa and Fraxinus excelsiour.
- Killala Bay / Moy Estuary SAC - Annual vegetation of drift lines, Vegetated Sea cliffs of the Atlantic and Baltic coasts, Salicornia and other annuals colonising mud and sand, Embryonic shifting dunes, Shifting dunes along the shoreline with Ammophila arenaria, Fixed coastal dunes with herbaceous vegetation, Humid dune slacks, Narrow-mouthed whorl snail.
- Lough Conn and Lough Cullin SPA - Wetlands and waterbirds.

which are listed in Table 6-2 of the NIS and as such, they are not included for further assessment.
The reason for inclusion of the Lough Conn and Lough Cullin SPA relates to proximity, and via direct or indirect disturbance on ex-situ SCI species during the Construction and/or Operational Phases. Removal of trees and instream works on the main channel of the River Moy in the centre of Ballina town will result in a temporary loss of estuarine foraging habitat for Common gull. The SPA is located upstream of the proposed scheme area, therefore no suitable hydrological connectivity between the proposed scheme area and the SPA exists. There is a hydrogeological link, however, the groundwater flows towards the nearest rivers and lakes, therefore groundwater is most likely to flow from the proposed scheme to the River Moy. Consequently, it is not expected that there will be any hydrogeological impacts.
In agreement with the applicants AA Screening, I am of the opinion that the QI/SCI receptors of the Natura Sites screened out, as set out above, are of sufficient distance upstream/upgradient of the

proposed development site with no direct link hydrologically or otherwise. That there will be no significant impact from construction noise or vibration, water quality impacts or habitat loss and alterations impacts. That there would be no adverse effect on the QI's/SCI receptors and hence they can be screened out at Stage 1.

I consider that Appropriate Assessment (stage 2) under Section 177V of the Planning and Development Act 2000 is required on the basis of the effects of the project 'alone' for impact upon QI/SCI receptors of

- River Moy SAC (site code: 002298),
- Killala Bay / Moy Estuary SAC (site code: 000458),
- Killala Bay / Moy Estuary SPA (site code: 004036),
- Lough Conn and Lough Cullin SPA (Site Code: 004228)

Namely, Sea lamprey, Brook lamprey, Salmon, Otter, White-clawed crayfish, Estuaries, Mudflats and Sandflats not covered by Seawater at Low tide, Atlantic Salt Meadows, Sea lamprey, Harbour Seal, Ringed plover, Golden plover, Grey plover, Sanderling, Dunlin, Bar-tailed godwit, Curlew, Redshank, Wetland and water birds, Tufted duck, Common scoter, Common gull, Greenland white fronted goose, for which the potential for significant effects could not be excluded.

This conclusion is based on:

- Objective information presented in the Applicants Screening Report and NIS,
- Standard pollution controls that would be employed regardless of proximity to a European site and effectiveness of same,
- Distance from European Site,
- The absence of meaningful pathway to any European Site,
- Impacts predicted would not affect the conservation objectives.

No measures intended to avoid or reduce harmful effects on European sites were taken into account in reaching this conclusion.

(Stage 2) Appropriate Assessment

Taking account of the preceding screening determination, the following is an appropriate assessment of the implications of the proposed development of a flood relief scheme / flood relief works in view of the relevant conservation objectives of the River Moy SAC (002298), the Killala Bay/Moy Estuary SAC (000458), Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228) based on scientific information provided by the applicant and considering expert opinion set out in observations on nature conservation.

The information relied upon includes the following:

- Natura Impact Statement prepared by RPS
- EIAR
- Photomontages
- CEMP
- Planning Report
- Water Framework Directive Compliance Report
- Site Locations and WFD Status
- Bat Surveys
- Bird Surveys
- Ecological Surveys

- Habitat Mapping
- Otter Surveys
- Mammals Mapping
- Noise Surveys
- Traffic Surveys
- Land, Soil Geology Drawings
- Underwater Archaeology Impact Assessment
- Aquatic Habitat Surveys
- Mitigation Planting
- Invasive Alien Plant Species (IAPS) surveys
- Ridge pool Survey
- Water Sampling Data
- Architectural Conservation Report
- Stakeholder Consultation
- Otter Derogation Licence, Derogation No. DER-OTTER-2025-09
- Marine Area Consent (MAC) (No. MAC20230008)
- Landowners Letters of Consent

Volume C, Appendices pertaining to Volume B of the EIAR contains:
– Appendix 3-1 Stakeholder Consultation
– Appendix 3-2 Landowner Letter (Sample)
– Appendix 6-1 Traffic Survey Data
– Appendix 6-2 Construction Traffic Management Plan
– Appendix 6-3 Junction Modelling
– Appendix 9-1 Site Locations and WFD status
– Appendix 9-2 Aquatic Survey Site Maps
– Appendix 9-3 Aquatic Habitat Descriptions
– Appendix 9-4 Photo Appendix 2023
– Appendix 9-5 Ballina FRS Macroinvertebrate Lists
– Appendix 9-6 Ridge Pool Survey
– Appendix 9-7 Quignamanger Water Sample Data
– Appendix 9-8 Hydraulic Cross Section Data
– Appendix 10-1 Bat Surveys
– Appendix 10-2 Breeding Bird Surveys
– Appendix 10-3 Ecological Valuation
– Appendix 10-4 Habitat Mapping
– Appendix 10-5 Desktop Results - Protected and Rare Species
– Appendix 10-6 Otter Signs Mapping
– Appendix 10-7 Otter signs
– Appendix 10-8 Mammal Mapping
– Appendix 10-9 Badger & Other Mammal Signs
– Appendix 10-10 Bat Low & Negligible Roost Features
– Appendix 10-11 Bat Medium Roost Features
– Appendix 10-12 Bird Species
– Appendix 10-13 Invasive Alien Plant Species
– Appendix 10-14 Invasive Alien Plant Species Drawings
– Appendix 10-15 Otter Holt Design
– Appendix 10-16 Mitigation Planting
– Appendix 11-1 Land, Soil Drawings

– Appendix 12-1 Water Framework Directive Compliance Report
– Appendix 15-1 Noise Calibration Certs
- Appendix 16.1 Utility Clashes
– Appendix 18-1 Mayo CDP Heritage Objectives
– Appendix 18-2 Heritage Plates
– Appendix 18-3 Underwater Archaeology Impact Assessment
– Appendix 19-1 Mitigation Planting
– Appendix 19.2 Ridgepool Rd Public Realm Design
– Appendix 19-3 Cathedral Road Raised Promenade
– Appendix 19-4 Photomontages
– Appendix 19-5 Architectural Conservation Report
– Appendix 20-1 Cumulative Assessment Projects and Plans list

I am satisfied that the information provided is adequate to allow for Appropriate Assessment. I am satisfied that all aspects of the project which could result in significant effects are considered and assessed in the NIS and mitigation measures designed to avoid or reduce any adverse effects on site integrity are included and assessed for effectiveness.

Submissions/observations

Submission were received from:

- An Taisce,
- TII
- Uisce Eireann

A detailed summary of all the observations is set out in section 6.2 of the planning assessment report R322329-25.

An Taisce raise concerns relating to AA incl. disturbance of Otter and Sea lamprey, their report highlights the designation of the River Moy as a Salmonid River and presence of Salmon in the ZoI of the scheme. It also sets out the following issues which are related to AA:

- Recommend the project be assessed against Article 4 of the Water Framework Directive to determine whether the project may cause a deterioration of the status of a surface or groundwater body or jeopardise the attainment of good surface or groundwater status or of good ecological potential and good surface or ground water chemical status.
- Recommend that the granted NPWS derogation licence (DWR-Otter-2025-09) is carefully considered. Recommend that retention of otter habitat in the first instance, in the form of rriparian embankments, would be preferable to removal of habitat.
  Importance of Consultation with Inland Fisheries Ireland (IFI) and National Parks and Wildlife Service (NPWS) as set out in Mayo County Development Plan Objectives in relation to Flood Relief Measures.
- Welcome the reconfiguration of the original flood wall layout to ensure retention of the riparian zone and mature trees along the Tullyegan stream. Riparian embankments and trees can help to mitigate flooding and can complement hard engineering solutions. However, query the

necessity to remove some trees within riparian habitat upstream of Rathkip/Shanaghy Bridge. Recommend environmentally friendly lighting with a limiting colour temperature to less than 2,700 Kelvins.

- Emphasise the importance of conducting a rigorous hydromorphological assessment of downstream effects in terms of velocity, flow, depth etc, particularly the changes to baseline conditions upon installation of flood walls which could adversely impact the preferred habitat of salmonids and lamprey.

- No concerns rerating to AA were raised by TII Uisce Eireann or by the Moyvale Residents Association.

NAME OF SAC/ SPA (SITE CODE): The River Moy SAC (site code: 002298),
The Proposed Scheme is located within the River Moy SAC with works required within the river itself.

Qualifying Interest features likely to be affected	Conservation Objectives	Potential adverse effects	Mitigation measures (summary)
Sea Lamprey (NPWS 2016)	To maintain the favourable conservation condition of sea lamprey in River Moy SAC **Attributes & Targets:** **Distribution: extent of anadromy:** No change over baseline. The Proposed Scheme does not introduce any new barriers to sea lamprey migration through Ballina **Population structure of juveniles:** There will be temporary, slight, negative, reversible effects locally related to disturbance but no net change to population structure at catchment scale and no negative effect on CO target. Direct instream impacts during the construction phase	Yes. Short term disturbance to sea lamprey habitats associated with temporary instream access route (Ballina Manor Hotel to Otter Apartments) Temporary disturbance to sea lamprey larval habitat associated with 3-5 m wide cofferdam installations and flood wall construction works adjacent to Bachelors Walk. Degradation of water quality and aquatic habitats arising from pollutant wash-out from temporary works areas along the River Moy margins through Ballina.	Chapter 7 of the NIS sets out Mitigation. 7.1 Construction Phase Mitigation 7.1.2 Contractor's Environmental Manager 7.1.3 Environmental Clerk of Works 7.1.4 Ecological Clerk of Works 7.1.5 Consultation with Inland Fisheries Ireland 7.1.6 Pre-Construction Surveys 7.1.7 Invasive Alien Plant Species Management 7.1.7.2 Aquatic Measures 7.1.8 Mitigation Measures for Noise and Vibration during Construction Activities 7.1.8.1 General Mitigation 7.1.8.2 Rock Breaking and Consaws 7.1.9 Environmental Incidents and Accidents 7.1.9.1 Use of Concrete, Fuel, Oils or Chemicals (Accidental Spillage) 7.1.12.1 of the NIS General mitigation measures and controls relevant to water are listed. 7.1.12.2 Silt Fencing Specifications 7.1.13 Specific River Moy (Ridgepool) Measures

	impinge temporarily or short term on one discrete location: Ridgepool RHS immediately upstream of Upper Bridge (see Site RP11, Appendix F). Any disturbed individuals will be relocated according to prescribed mitigation with no adverse effects on the CO target. **Juvenile density in fine sediment:** There will be temporary slight negative reversible effects locally related to disturbance but no significant net effect at catchment scale and no negative effect on CO target. Direct instream impacts during the construction phase impinge temporarily on one discrete location: Ridgepool RHS immediately upstream of Upper Bridge (see Site RP11, Appendix F). Any disturbed individuals will be relocated according to prescribed mitigation meaning a redistribution but no loss in density. There are no significant hydraulic or hydromorphological changes that would preclude recovery of marginal depositing silt habitat in the area between RP11 and the Upper Bridge meaning no adverse effects on the CO target. **Extent and distribution of spawning habitat:**		• Sea lamprey spawning habitat protection Timing Restrictions • General water quality protection to protect aquatic habitats 7.1.14 Specific River Moy (Downstream of N59 Lower Bridge) Mitigation Measures	

	With mitigations in place that avoid placement of the access ramp and/or cofferdams at the river margin during sea lamprey spawning season (May-July (inclusive), there will be no decline in lamprey spawning area (m2) or distribution of the spawning beds. That does not preclude that sea lamprey may slightly move the exact location of their spawning redd in Y2 compared to a season where there is no instream structure (access ramp or cofferdam), but the works do not preclude spawning in Ridgepool during either Y1 or Y2 as the footprint of the works and the tidal nature of the Ridgepool already dictates that spawning cannot occur in the ephemeral marginal habitats that dewater at low tide. No effect on the CO target from the Proposed Scheme with mitigations in place as prescribed.			
Brook Lamprey (NPWS 2016)	Maintain conservation condition of this species. **Attributes & Targets:** **Distribution:** No change over baseline. The proposed scheme does not introduce any new barriers to brook lamprey access. **Population structure of juveniles:** Juvenile brook lamprey were not recorded on the lower Moy (in Ballina)	Yes. Water quality impacts and/or disturbance of this species is possible which could potentially affect the population trend. Potential degradation of water quality and aquatic habitats arising from pollutant wash-out from temporary works areas along the River Moy margins through Ballina.	As above.	

	(O'Connor, 2004). The Ridgepool is not considered brook lamprey spawning habitat, being tidally influenced and lacking in suitable substrates. There will be no change in population structure of juvenile brook lamprey with respect to works in the Ridgepool and no adverse effects on the overall CO target **Juvenile density in fine sediment:** The Ridgepool is not significant brook lamprey spawning habitat, being tidally influenced and lacking in suitable substrates. There will be no decline in brook lamprey juvenile density locally and no adverse effects on the CO target. **Extent and distribution of spawning habitat:** The Ridgepool is not significant brook lamprey spawning habitat, being tidally influenced and lacking in suitable substrates. There will be no decline in brook lamprey spawning habitat with respect to works in the Ridgepool and no adverse effect on the CO target. **Availability of juvenile habitat:** Catchment wide surveys (O'Connor, 2004) showed 60.3% of 75 Moy catchment sample sites were positive for			

	Lampetra spp. (includes brook lamprey, which exceeds this target. Lampetra spp. were absent from the lower reaches of the Moy in Ballina, so the Proposed Scheme does not give rise to any change over baseline in terms of sample site positivity for brook lamprey**.**			
Salmon (NPWS 2016)	Maintain the Favourable conservation condition **Attributes & Targets:** **Distribution extent of anadromy:** No change over baseline. The Proposed Scheme does not introduce any new barriers to salmon migration through Ballina. **Adult Spawning Fish:** No change over baseline. The Proposed Scheme does not impact on adult salmon returning numbers nor salmon spawning habitat which is primarily upstream of the Ridgepool on the Moy. There is no reason under the Proposed Scheme that CL will not continue to be exceeded. **Salmon fry Abundance:** No change over baseline. The Proposed Scheme does not impact on adult salmon returning numbers nor salmon spawning habitat. There is no reason under the Proposed Scheme that	Yes. Degradation of water quality and aquatic habitats arising from pollutant wash-out from temporary works areas along the River Moy margins through Ballina Degradation of water quality and aquatic habitats arising from out of-channel flood wall repairs and construction, regrading of roads and footpaths, drainage features. Degradation of water quality and aquatic habitats arising from pump out of ingress water from cofferdams.	As above.	

	salmon fry catchment-wide abundance would not be maintained. **Out-migrating smolt abundance:** No change over baseline. The Proposed Scheme does not impact on downstream migrating smolts meaning there will be no decline in abundance of smolts reaching the sea. **Number and distribution of Redds Number and Occurrence:** No change over baseline. The Proposed Scheme does not impact on abundance of salmon reaching the spawning grounds nor on the spawning grounds themselves which are upstream of the Ridgepool, meaning the number and distribution of redds will not be affected. **Water quality EPA Q value:** Q-value just upstream of Ballina (and upstream of the proposed scheme) is Q3-4 (2022 EPA data), which fails to meet the target. The reach affected by the Proposed Scheme does not impinge on the Q-rating, but if it did, scheme measures would (if anything) be likely to result in at least a slightly positive, longterm impact on water quality through			

	and downstream of Ballina because of reduction in risk and frequency of flood waters overtopping walls and being contaminated within the urban drainage area. The Proposed Scheme does not result in changes to hydromorphology or water quality that would cause deterioration of the biological quality element (Macroinvertebrate Q-value). There is no cause for deterioration in water body status and the scheme does not jeopardise attainment of good status, hence compliant with WFD objectives.			
Otter (NPWS 2016),	To maintain favourable conservation condition **Attributes & Targets:** **Distribution:** No change over baseline. The Proposed Scheme has the potential to affect the distribution of otter across the proposed works areas via habitat loss and disturbance including the spread of invasive species, habitat degradation via a reduction in water quality directly affecting otter and/or prey items, loss of breeding and resting sites, disturbance /displacement or mortality during construction including creating a barrier effect due to the presence of	Yes. Habitat Loss, Fragmentation and Disturbance. Habitat Degradation – Spread of Invasive Species. Habitat Degradation – Pollution Event: Chemical Spill, Sedimentation etc. Habitat Degradation – Reduction in Foraging Resources and/or Abundance of Prey Items Loss of Breeding and Resting Sites. Disturbance/Displacement Habitat Severance/Barrier Effect	Section 7.1.10 of the NIS sets out Otter Specific Mitigation Measures 7.1.10.1 Derogation Licensing 7.1.10.2 Mitigation Measures for Dealing with Otter Holts 7.1.10.3 Measures Regarding Loss and Disturbance of Otter Habitat 7.1.10.4 Measures to Protect Against Mortality 7.1.10.5 Watching Brief during Site Clearance 7.1.10.6 Tall Herb Swamp Measures	

	construction machinery and/or personnel. However, with the implementation of the mitigation measures outlined in Section 7.1.10, there will be no significant decline in the distribution of otter across the SAC and otter distribution will not be affected compared to baseline. **Extent of terrestrial habitat:** The proposed works area along the Brusna has the potential to impact upon the extent of terrestrial habitat within the SAC used by otter. However, the design of the Proposed Scheme is such that minimal amount of bankside woody habitat will be removed to facilitate the creation of flood defences with defences being set back as far as practicable from the watercourse. Planting associated with the Proposed Scheme will aim to replace any woody vegetation lost during the construction phase and this planting will provide woody vegetation cover along a section of the Brusna where cover is very sparse. It is therefore considered that the extent of terrestrial habitat which can used by otter will not significantly decline compared to the baseline. **Couching sites and holts:**	Mortality Risk		

	The Proposed Scheme will result in the direct loss of two couches along Clare Street and has the potential to impact the use by otter of a further three couches along the River Brusna. Couches are generally ephemeral, and otter usually maintain a number of different couches across their territory. The Proposed Scheme will also temporarily impact the use of a single, potential natal holt along the River Brusna. This holt will not be destroyed due to the proposed works, however, the presence of personnel and machinery in close proximity to the holt may deter otters from using it while works are ongoing. With the implementation of the mitigation measures outlined in Section 7.1.10, there will be no significant decline of otter couching sites and holts across the SAC. **Barriers to Connectivity:** No change over baseline. The proposed scheme has the potential to create temporary barriers to connectivity during the construction phase, however, with the implementation of the stated mitigation measures, there will be no significant increase in barriers to connectivity for otter. The operational phase of the Proposed Scheme does not			

	introduce any new barriers to connectivity for otter.			
White-clawed crayfish (NPWS 2016),	To maintain the Favourable conservation condition **Attributes & Targets:** **Distribution:** No change over baseline. The Proposed Scheme does not impact on crayfish distribution as defined in the Conservation Objectives, where it is recognised that crayfish do not occur in the Moy main channel and have never been recorded in the Brusna or Tullyegan tributaries. **Population structure recruitment**: Crayfish primarily occur upstream of Foxford in the Moy and have never been recorded in the Moy, Brusna or Tullyegan. The Proposed Scheme does not impact on the crayfish positive tributaries as set out in the Conservation Objectives. If crayfish did emerge in the Tullyegan or Brusna during water draw-downs, they will be relocated outside of the working zone where there is abundant alternative habitat and no change with respect to this target, noting that crayfish presence is extremely unlikely in either of these streams, but were included on a precautionary basis.	Yes. There will be some direct effects arising from instream works. Indirect effects associated with spread of crayfish plague.	7.1.16 Specific Measures for White-clawed crayfish • General water quality protection to protect aquatic habitats and species Instream works Rathkip/Shanagh Bridge and Tullyegan Stream • Channel reinstatement With all biosecurity measures employed, there will be no introduction of alien crayfish species.	

Killala Bay/Moy Estuary SAC (000458) (NPWS, 2012) The Proposed Scheme overlaps with the Killala Bay/Moy Estuary SAC				
Qualifying Interest features likely to be affected	**Conservation Objectives**	**Potential adverse effects**	**Mitigation measures (summary)**	
Estuaries (NPWS, 2012)	To maintain the favourable conservation condition. **Attributes & Targets:** **Habitat area Hectares:** With mitigations implemented in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect processes or effects that could alter the permanent habitat area of Habitat 1130. **Community extent:** The Zostera dominated community is located >6 km downstream of the proposed works at a minimum. With mitigations included in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect effects that could alter the extent of the Zostera-dominated community in the construction or operational phases. **Community distribution:**	Yes. Habitat Loss, Fragmentation and Disturbance. Habitat Degradation	As above Chapter 7 of the NIS sets out Mitigation.	

	There will be no significant continuous or ongoing disturbance of these communities. The estuarine muddy sand dominated by Hediste diversicolor and Heterochaeta costata community is not directly affected and with mitigations implemented in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect effects that could alter the natural condition, area or distribution of this estuarine community. The same applies to each of the other estuarine community types (not within the study area) in terms of absence of direct and indirect effects.			
Mudflats and Sandflats not covered by seawater at low tide (NPWS, 2012)	To maintain the favourable conservation condition. **Attributes & Targets:** **Habitat area Hectares:** With mitigations implemented in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect processes or effects that could alter the permanent habitat area of Habitat 1140. **Community extent:** The Zostera dominated community is located >6 km	Yes. Habitat Degradation	As above.	

	downstream of the proposed works at a minimum. With mitigations included in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect effects that could alter the extent of this estuarine community in the construction or operational phases. **Community hectares distribution:** There will be no significant continuous or ongoing disturbance of these communities.			
Atlantic Salt Meadows (NPWS, 2012)	To maintain the favourable conservation condition. **Attributes & Targets:** **Habitat area:** With mitigations implemented in the area of water quality protection (especially measures to prevent suspended solid and other pollutant loss) there are no direct or indirect processes or effects that could alter the permanent habitat area of Habitat 1330. **Habitat distribution:** With mitigations implemented in the area of water quality protection (especially measures to prevent suspended solid and	Yes. Habitat Degradation	As above. With mitigations implemented in the area of water quality protection (especially measures to prevent suspended solid and other pollutant loss) there are no direct or indirect processes or effects that could alter the zonation of vegetation within this Habitat.	

	other pollutant loss) there are no direct or indirect processes or effects that could alter the permanent habitat area of Habitat 1330 **Physical structure: sediment supply:** The Proposed Scheme will not result in any physical barriers that could impede the natural circulation of sediments and organic matter that would result in a change in the physical structure of Habitat 1330**.**			
Sea Lamprey (NPWS, 2012)	To maintain the favourable conservation condition. **Attributes & Targets:** **Distribution extent of anadromy:** No change over baseline. The Proposed Scheme does not introduce any new barriers to sea lamprey migration through the estuary. **Population structure of juveniles:** There will be temporary slight negative reversible effects locally but no significant effect at catchment scale and no negative effect on CO target. Direct instream impacts during the construction phase impinge temporarily on 120 m of river margin adjacent to Bachelors Walk downstream of the N59 Lower Bridge. Any disturbed individuals	Yes. Temporary disturbance to sea lamprey larval habitat associated with 3-5 m wide cofferdam installations and flood wall construction works adjacent to Bachelors Walk Degradation of water quality and aquatic habitats arising from pollutant wash-out from temporary works areas along the River Moy margins through Ballina	As above mitigation.	

	will be relocated according to prescribed mitigation and the habitat will recover in the operational phase with no adverse effect on the CO target. **Juvenile density in fine sediment:** Direct instream impacts during the construction phase impinge temporarily on 120 m of river margin adjacent to Bachelors Walk downstream of the N59 Lower Bridge. Any disturbed individuals will be relocated according to prescribed mitigation. Sub-optimal silty depositing habitats will form equivalent habitat to baseline following the works. There are no significant hydraulic or hydromorphological changes that would preclude recovery of marginal depositing silt habitat in the area immediately upstream of the Upper Bridge meaning no adverse effect on the CO target.			
Harbour seal **(NPWS, 2012)**	To maintain the favourable conservation condition. **Attributes & Targets:** **Access to suitable habitat:** No change over baseline. The Proposed Scheme does not introduce any new barriers that would	**Yes.** Habitat Loss, Fragmentation and Disturbance Pollution Event - Chemical Spill or Sedimentation. Habitat Degradation – Reduction in Foraging Resources and/or Abundance of Prey Items.	As above mitigation.	

	result in the restriction of access to suitable habitat by harbour seal. **Breeding Behaviour:** No change over baseline. The Proposed Scheme does not impact upon any harbour seal breeding sites and therefore, harbour seal breeding sites within the SAC will be conserved in a natural condition with no adverse effect on harbour seal breeding behaviour due to the Proposed Scheme. **Moulting Behaviour:** No change over baseline. **Resting behaviour:** No change over baseline. **Disturbance:** No change over baseline. Harbour seal utilise the River Moy and Moy Estuary adjacent to the Proposed Scheme. The centre of Ballina is not considered a primary foraging ground for harbour seal within the SAC and any seal observed were most likely opportunistically pursuing migrating salmon. Furthermore, it is also considered that any harbour seal foraging within the centre of Ballina are habituated to the presence of humans and traffic. Given the low numbers of harbour seal likely using the River Moy and Moy Estuary adjacent to the Proposed Scheme works and the extensive areas of	Disturbance/Displacement		

	suitable, alternative foraging habitat within Killala Bay/Moy Estuary and the north and west coasts outside the redline boundaries it is considered that the activities associated with the Proposed Scheme are not expected to occur at levels that will adversely affect the harbour seal population of the site.			
NAME OF SAC/ SPA (SITE CODE): Killala Bay/Moy Estuary SPA (site code: 004036). The Proposed Scheme overlaps with the Killala Bay/Moy Estuary SPA.				
Qualifying Interest features likely to be affected	**Conservation Objectives**	**Potential adverse effects**	**Mitigation measures (summary)**	
Ringed Plover (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** No ringed plover were observed adjacent to the Proposed Scheme works areas during overwintering waterbird surveys undertaken for the Proposed Scheme. Additionally, no ringed plover were recorded from the three SPA subsites (0D448, 0D449, 0D450) adjacent to the Quignamanger proposed works area during either the 2010/11 Waterbird Survey Programme (i.e. a low-tide survey period) or the Irish Wetland Bird Survey (i.e. a rising tide or	**Yes.** Habitat Loss, Fragmentation and Disturbance Habitat Degradation - Air Pollution Pollution Event - Chemical Spill or Sedimentation. Disturbance/Displacement	7.1.11 SCI Bird Species Specific Measures 7.1.12 Water Quality Protection Measures 7.1.12.1 General Water Quality Protection 7.1.12.2 Silt Fencing Specifications. 7.1.12.3 Embankment Settlement 7.1.12.4 Infiltration of Surface Runoff 7.1.12.5 Loss of Soil and Bedrock Reserves	

	high tide survey) as outlined in the Conservation Objectives supporting document (NPWS, 2013c). A reduction in water quality is therefore considered the only potential impact arising from the Proposed Scheme with the possibility of affecting ringed plover that may be foraging or roosting downstream from the Proposed Scheme. However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long-term population trend of ringed plover. **Distribution:** Same as above.			
Grey Plover (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** No grey plover were observed adjacent to the Proposed Scheme works areas during overwintering waterbird surveys undertaken for the Proposed Scheme. Additionally, no grey plover were recorded from the three SPA subsites (0D448, 0D449, 0D450) adjacent to the Quignamanger proposed works area during either	**Same as above**	As above mitigation.	

	the 2010/11 Waterbird Survey Programme (i.e. a low-tide survey period) or the Irish Wetland Bird Survey (i.e. a rising tide or high tide survey) as outlined in the Conservation Objectives supporting document (NPWS, 2013c). A reduction in water quality is therefore considered the only potential impact arising from the Proposed Scheme with the possibility of affecting grey plover that may be foraging or roosting downstream from the Proposed Scheme. However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long-term population trend of grey plover. **Distribution:** Same as above.			
Sandering (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** No sanderling were observed adjacent to the Proposed Scheme works areas during overwintering waterbird surveys undertaken for the Proposed Scheme.	**Same as above**	As above mitigation.	

	Additionally, no sanderling were recorded from the three SPA subsites (0D448, 0D449, 0D450) adjacent to the Quignamanger proposed works area during either the 2010/11 Waterbird Survey Programme (i.e. a low-tide survey period) or the Irish Wetland Bird Survey (i.e. a rising tide or high tide survey) as outlined in the Conservation Objectives supporting document (NPWS, 2013c). A reduction in water quality is therefore considered the only potential impact arising from the Proposed Scheme with the possibility of affecting sanderling that may be foraging or roosting downstream from the Proposed Scheme. However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long-term population trend of sanderling. **Distribution:** Same as above.			
Dunlin (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:**	**Same as above**	As above mitigation.	

	None of the three SPA subsites which are adjacent to the Quignamanger proposed works area (Subsites 0D448, 0D449, 0D450) ranked as important high tide roosts for dunlin (NPWS, 2013c). Subsite 0D450, which is located directly downstream of the Quignamgner proposed works area was assessed as being of Moderate importance for dunlin at low tide during the 2010/11 Waterbird Survey Programme (NPWS, 2013c). No dunlin, however, were observed adjacent to the Proposed Scheme works areas during overwintering waterbird surveys conducted. reduction in water quality is therefore considered the only potential impact arising from the Proposed Scheme with the possibility of affecting dunlin that may be foraging or roosting downstream from the Proposed Scheme. However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the range, timing or intensity of use of areas by dunlin.			

	Distribution: Same as above.			
Bar-tailed godwit (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** None of the three SPA subsites which are adjacent to the Quignamanger proposed works area (Subsites 0D448, 0D449, 0D450) ranked as important high tide roosts for bar-tailed godwit (NPWS, 2013c). Subsite 0D450, which is located directly downstream of the Quignamanger proposed works area was assessed as being of Low important for dunlin at low tide during the 2010/11 Waterbird Survey Programme (NPWS, 2013c). Nineteenbar-tailed godwit were observed adjacent to the Quignamanger proposed works area during the survey visit in December 2022. These birds were seen foraging on the mudflats on the left-hand bank of the Moy estuary approximately 200 m from the western extent of the Quignamanger proposed works area at the edge of Ballina Quay. These 19 individuals are 5.7% of the SPA population. The site conservation condition of bar-tailed godwit within Killala Bay/Moy Estuary SPA is Intermediate	**Same as above**	As above mitigation.	

	(unfavourable) with the site population trend decreasing by 6.9% over the 12 years from 1995/96 through to 2007/08. The long-term trend (1995/96 – 2019/20) for this species within Killala Bay is also categorised as a Large Decline (Kennedy et al., 2022). A reduction in water quality is considered the only potential impact arising from the Proposed Scheme with the possibility of affecting the population trend of bar-tailed godwit (e.g. via mortality due to contact with toxic substances; a reduction in prey items having a negative effect on survival etc.). However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long term population trend of bar-tailed godwit **Distribution:** The Proposed Scheme will not affect the distribution of bar-tailed godwit by causing a significant decrease in the range, timing orintensity of use of areas by bar-tailed godwit.			

Curlew (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** None of the three SPA subsites which are adjacent to the Quignamanger proposed works area (Subsites 0D448, 0D449, 0D450) ranked as important high tide roosts for curlew (NPWS, 2013c). Subsite 0D450, which is located directly downstream of the Quignamgner proposed works area was assessed as being of Low important for curlew at low tide during the 2010/11 Waterbird Survey Programme (NPWS, 2013c). A maximum of four curlew were observed at any one time utilising the survey area adjacent to the Quignamanger proposed works area during the over-wintering birds survey for the Proposed Scheme. This represents 0.74% of the SPA population. The site conservation condition of curlew within Killala Bay/Moy Estuary SPA is Unfavourable with the site population trend decreasing by 41.8% over the 12 years from 1995/96 through to 2007/08. The long-term trend (1995/96 – 2019/20) for this species within Killala Bay is also	**Same as above**	As above mitigation.	

	categorised as a Large Decline (Kennedy et al.,2022). A reduction in water quality is considered the only potential impact arising from the Proposed Scheme with the possibility of affecting the population trend of curlew (e.g. via mortality due to contact with toxic substances; a reduction in prey items having a negative effect on survival etc.). However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long-term population trend of curlew **Distribution:** No significant decrease in the range, timing or intensity of use of areas by curlew other than that occurring from natural patterns of variation.			
Redshank (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Population Trend:** None of the three SPA subsites which are adjacent to the Quignamanger proposed works area (Subsites 0D448, 0D449, 0D450) ranked as important high tide roosts for redshank (NPWS, 2013c). Subsite 0D450, which is	**Same as above**	As above mitigation.	

	located directly downstream of the Quignamgner proposed works area was assessed as being of High importance while subside 0D448 (which is located downstream of the Ice House) was assessed as being of Low importance for redshank at low tide during the 2010/11 Waterbird Survey Programme (NPWS, 2013c). A maximum of 50 redshank were observed at any one time utilising the survey area adjacent to the Quignamanger proposed works area during the over-wintering birds survey for the Proposed Scheme. Redshank were seen foraging on the mudflats on both the left-hand and right-hand banks of the Moy estuary between 50 and 500m from the western extent of the Quignamanger proposed works area at the edge of Ballina Quay. Some redshank were also observed flying over this survey area. These 50individuals are 16.7% of the SPA population. A maximum of two redshank were observed at any one time utilising the survey area within the centre of Ballina town during the over-wintering birds survey for the Proposed Scheme. These redshank were observed flying over and foraging within the main channel of the River Moy in the centre of the town.			

	The site conservation condition of redshank within Killala Bay/Moy Estuary SPA is Favourable with the site population trend increasing by 3.4% over the 12 years from 1995/96 through to 2007/08. The long-term trend (1995/96 – 2019/20) for this species within Killala Bay is also categorised as a Moderate Decline (Kennedy et al.,2022). A reduction in water quality is considered the only potential impact arising from the Proposed Scheme with the possibility of affecting the population trend of redshank (e.g. via mortality due to contact with toxic substances; a reduction in prey items having a negative effect on survival etc.). However, with mitigations implemented in the area of water quality protection there are no direct or indirect effects resulting from the Proposed Scheme that could alter the long-term population trend of redshank. **Distribution:** No significant decrease in the range, timing or intensity of use of areas by redshank, other than that occurring from natural patterns of variation.			

	Given the small area of works that have the potential to elicit a disturbance response (i.e. the culvert upgrade under Quay Road and the open channel re-instatement at the northern end of Ballina Quay) the distance that the majority of redshank were observed from this works area (i.e. all but three observations were >125 m away) and the relatively short duration of this section of the works, it is considered that the Proposed Scheme will not affect the distribution of redshank by causing a significant decrease in the range, timing or intensity of use of areas by redshank			
Wetland and waterbirds (NPWS 2013b)	To maintain the favourable conservation condition. **Attributes & Targets:** **Habitat area:** With mitigation implemented in the area of water quality protection (especially measures to prevent suspended solids loss) there are no direct or indirect processes or effects that could alter the permanent habitat area of wetlands.	**Same as above**	As above mitigation.	

Lough Conn and Lough Cullin SPA (Site Code: 004228) Located approximately 4.7km west, as the crow flies, from Ballina town centre *Note. The NIS refers to NPWS 2022 for Lough Conn and Lough Cullin SPA, however, this has now been updated on the NPWS website to NPWS 2025)				
Qualifying Interest features likely to be affected	**Conservation Objectives**	**Potential adverse effects**	**Mitigation measures (summary)**	
Tufted Duck (NPWS, 2025)	To maintain the favourable conservation condition. **Attributes & Targets:** **Winter Population Trend:** Long term winter population trend is stable or increasing. **Winter spatial distribution:** Sufficient number of locations, area, and availability (in terms of timing and intensity of use) of suitable habitat to support the population target. **Disturbance at wintering site:** Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and distribution. **Barriers to connectivity and site use:** Barriers do not significantly impact the wintering population's access to the SPA or other ecologically important sites outside the SPA **Roost spatial distribution and extent:**	**Yes.** Habitat Loss, Fragmentation and Disturbance Habitat Degradation - Air Pollution Pollution Event - Chemical Spill or Sedimentation. Disturbance/Displacement from construction and /or operational phases. Potential to occur within or adjacent to the Proposed Scheme study area. This species was not, however, recorded during baseline surveys.	With the implementation of the mitigation measures outlined in Section 7 of the NIS, and set out in greater detail above, it is considered that there is no significant potential for the Proposed Scheme to affect the conservation objective of Tufted Duck.	

	Sufficient number of locations, area and availability of suitable roosting habitat to support the population target.			
Common Scoter (NPWS, 2025)	To maintain or restore the favourable conservation condition. **Attributes & Targets:** **Breeding population trend:** The breeding population on Loughs Conn and Cullin was estimated to be broadly stable at circa 30 pairs between 1968 and 1995 (Tierney, 2001). Baseline surveys in 1995 to inform SPA designation recorded an estimated 31 potential breeding pairs in Lough Conn and Lough Cullin SPA (Gittings, 1995; NPWS, 2013). Repeat surveys in 2012 and 2020 recorded just a single potential breeding pair in the SPA on both occasions (Hunt et al., 2013; Heffernan and Hunt, 2022). This represents a population decline of 97% between 1995 and 2020. The percentage decline of the SPA population is significantly greater than the national decline and is in contrast to population trends recorded at other Common Scoter breeding sites, such as the Lough Corrib SPA **Distribution of nesting habitat:** No significant loss of distribution in the long term, other than that	**Same as above** Potential to occur within or adjacent to the Proposed Scheme study area. This species was not, however, recorded during baseline surveys.	Same as above.	

	occurring due to natural patterns of variation. **Barriers to connectivity and site use:** Barriers do not significantly impact the breeding population's access to the SPA or other ecologically important sites outside the SPA.			
Common gull (NPWS, 2025)	To maintain the favourable conservation condition. **Attributes & Targets:** **Breeding population size:** Approximately 30 pairs of Common Gull were recorded breeding in Lough Conn in 1894 and breeding birds were noted on Lough Cullin in the same year (Ussher and Warren, 1900). In 1977 an estimated 70 individuals were recorded in this SPA, indicating the presence of approximately 35 pairs of Common Gull (NPWS internal files). A population of 40 pairs of Common Gull were recorded in the SPA in 2000 (Mitchell et al., 2024) and the population in 2017 was similar with an estimated 38 pairs present in the SPA (NPWS internal files). The most recent population estimate in 2020 recorded 34 pairs (NPWS internal files). All population estimates for this site have ranged between 30 and 40 pairs which indicates a stable	Same as above This species was recorded during baseline surveys. Incidental records of common gull were observed during the breeding bird surveys across the Proposed Scheme in the summer of 2022. Given the overland distance (approximately 5 km) between the SPA and the Proposed Scheme in combination with the foraging distance of common gull (50 km (Woodward et al., 2019)), it is considered that there is potential for ex-situ foraging connectivity between the SPA and the Proposed Scheme area for breeding common gull.	Same as above • Water Quality Protection Measures (Section 7.1.12) which will ensure that SCI bird species, SCI bird species habitat and SCI bird species prey items are not affected by a water pollution event. • Environmental Incidents and Accidents Measures (Section 7.1.9) which will ensure that SCI bird species and SCI bird species habitat is not affected by a pollution event. • Invasive Alien Plant Species Measures (Section 7.1.7) which will ensure that SCI bird species habitat is not degraded via the presence of IAPS. • Noise and Vibration Measures (Section 7.1.8) which will ensure that disturbance of SCI bird species via noise and vibration is eliminated or kept to a minimum. • Replanting and landscaping	

	population. The national population has increased by 89% between 1998 - 2002 and 2015 - 2021 (Burnell et al., 2023) **Productivity rate:** There was no productivity data available for this species in this SPA. A lack of comprehensive Irish data precludes the identification of a minimum productivity rate for this species at the site and at the national level. Common Gull productivity in Scotland between 2000 and 2020 was below 0.6 chicks per breeding pair; in this time period the Scottish population of Common Gull was decreasing (Harris et al., 2024) **Distribution extent of nesting options within the SPA:** The suitability and availability of habitat areas may vary through time. This will affect the spatiotemporal patterns of use of the habitats by Common Gull. Common Gull breeding inland can nest in a variety of habitats such as grassy/heather moorland, near lakes, pools, in bogs, on open ground away from water, and cultivated grain fields (Moskoff et al., 2021). Historically, Common Gull have bred on multiple islands throughout this SPA.			

	Disturbance at areas ecologically connected to the colony: Inland breeding gulls may use freshwater and terrestrial habitats ecologically connected to the colony in order to forage as well as to engage in other maintenance behaviours (e.g. courtship, bathing, preening) as defined in McSorley et al. (2003) **Barriers to connectivity:** Inland breeding gulls require regular and efficient access to freshwater and terrestrial habitats ecologically connected to the colony in order to forage as well as to engage in other maintenance behaviours. Based on several studies, Woodward et al. (2019) estimate that the maximum foraging range of a Common Gull from the nest site during the breeding season is 50km (see Power et al., 2021)			
Greenland White fronted goose (NPWS, 2025)	To restore the favourable conservation condition. **Attributes & Targets:** **Winter Population Trend:** The national population of Greenland White-fronted Goose has declined by 13% between 1985 and 2018 (EEA, 2019). It is understood that a single flock of Greenland White-fronted Goose uses the Lough Conn and Lough Cullin SPA and wider area including the Ox	**Same as above** Potential to occur within or adjacent to the Proposed Scheme study area. This species was not, however, recorded during baseline surveys.	Same as above	

	Mountains (see Burke et al., 2014). During the baseline assessments to inform SPA designation, this flock was estimated to number 124 Greenland White-fronted Goose (5 year mean of peak counts for period 1994/95 - 1998/99; see Burke et al., 2014). More recently, the flock was estimated to number just 38 Greenland White-fronted Goose (5 year mean of peak counts 2018/19 - 2022/23; see Fox et al., 2019, 2020, 2021, 2022 and 2023). This represents an estimated population decline of 69% for this flock since the baseline period, significantly greater than the national trend. **Disturbance at wintering site:** Disturbance occurs at levels that do not significantly impact the achievement of targets for population trend and distribution. **Barriers to connectivity and site use:** Barriers limiting the population's access to this SPA or ecologically important sites outside the SPA will ultimately affect the achievement of targets for population trend and/or spatial distribution. Factors such as the number, location, shape and area of potential barriers must be taken into account to determine their potential			

	impact. Access to ecologically important sites outside the SPA must also be considered as a single SPA may not satisfy all the ecological requirements of the wintering population, and it may require access to other SPAs or sites for certain activities, such as foraging when preferred foraging areas are unavailable due to disturbance, extensive flooding, or other factors **Roost spatial distribution and extent:** Roosting is a critical ecological requirement for the wintering population. Overnight roosting habitat mainly consists of permanent waterbodies, such as lakes, estuaries, bays, and other open waterbodies. When roosting in waterbodies, this species can roost on above-water features such as sandbanks. Daytime roosting is also a common behaviour, where birds minimise activity levels to conserve energy, while benefitting from the vigilance of other flock members. A lack of sufficient and suitable roosting habitats can result in increased mortality risk, whether indirectly (e.g. via increased energy expenditure travelling to/from roost sites) or directly (e.g. via increased predation risk), or reduction in site use; this			

	would ultimately affect the achievement of targets for population trend and/or spatial distribution. **Supporting habitat: area and quality:** The wintering population can make extensive use of suitable habitats in important areas outside the SPA for foraging and roosting. The extent, availability and quality of these supporting habitats may be of importance for the resilience of the SPA population. Suitable supporting habitats include those highlighted in the attributes for foraging and roosting habitat.			

The above table is based on the documentation and information provided on the file and the NPWS website and I am satisfied that the submitted NIS has identified the relevant attributes and targets of the Qualifying Interests, with the exception of Lough Conn and Lough Cullin SPA which has now been updated on the NPWS website to NPWS 2025). In particular, I note those relating to QI Marine Habitats, SCI bird species and QI wetland habitat for which The River Moy SAC (site code: 002298), Killala Bay/Moy Estuary SAC (site code: 000458), Killala Bay/Moy Estuary SPA (site code: 004036) and Lough Conn and Lough Cullin SPA (Site Code: 004228) are designated.

As set out above, the construction and/or operational and maintenance phases of the Proposed Scheme has the potential to affect the River MoySAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA via hydrological, hydrogeological, direct disturbance or indirect disturbance pathways on qualifying interest (QI) or Special Conservation Interest (SCI) species. The screening concluded that there is potential for likely significant effects on the following QIs and SCIs: sea lamprey, brook lamprey, salmon, otter, white-clawed crayfish, estuaries, mudflats and sandflats not covered by seawater at low tide, Atlantic salt-meadows, harbour seal, ringed plover, golden plover, grey plover, sanderling, dunlin, bar-tailed godwit, curlew, redshank, wetland and waterbirds, tufted duck, common scoter, common gull and Greenland white-fronted goose.

To reduce the effects on the River Moy SAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA and/or Lough Conn and Lough Cullin SPA that are likely to arise as a result of the Proposed Scheme, mitigation measures to be implemented have been set out in detail in Chapter 7.0 of the NIS.

These mitigation measures set out clear commitments for surface water management, otter protection measures, noise and vibration protection measures and measures to prevent environmental incidents and accidents, amongst others, during construction of the Proposed Scheme. A number of operational and maintenance phase mitigation measures have also been outlined.

Assessments of adverse effects on each of these QIs and SCIs were carried out with reference to their conservation objectives with respect to the River Moy SAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA. Following a comprehensive evaluation of the potential direct, indirect and cumulative effects on the QIs and SCIs of the River Moy SAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA and the implementation of the proposed mitigation measures, it is concluded that all reasonable scientific doubt has been removed and that there will be no adverse effects on the integrity of any European Site as a result of the Proposed Scheme either alone or in-combination with other plans or projects.

Mitigation regarding water quality protection will be applied, as follows, as a precaution:

Construction Phase:
Limit suspended solids from entering watercourses by placing controls at all sources and pathways including, at a minimum, the following measures:

- Placing silt fencing (see Section 7.1.12.2 of the NIS) between works areas and pathways to watercourses.
- Passing sediment-laden runoff and dewatering effluent through settling tanks and silt bags before allowing discharge to watercourses. Discharges will not result in suspended sediment exceeding 25 mg/l in receiving waters and will be between 6 and 9 ph.
- Ensuring dewatering pumps are placed in sumps surrounded by drainage stone.
- Prioritising infiltration of silt-laden water to ground through soak pits and infiltration trenches where feasible.
- Stockpiling only allowed in designated areas.
- Constructing ditches and installing silt fencing around stockpile areas (restricted to the compounds).
- Stockpiling only allowed in designated areas.
- Placing sandbags and/or straw bales as check dams in drainage ditches to attenuate runoff and reduce erosion.
- Regular road washing to prevent build-up of mud from construction vehicles, which may runoff into watercourses. Wheel wash facilities to be provided at exit points of all site compounds.
- Delineating buffer zones of at least 1 m along greenfield riparian works areas within which tracking of machinery and storage of construction materials will be prohibited.
- Reviewing earthworks programming when prolonged rainfall is forecast.

Limit cementitious particles from entering watercourses by placing controls at all sources and pathways including, at a minimum, the following measures:

- Having dedicated, suitably prepared concrete washout areas for concrete chute and bowser washout, and cleaning of concrete contaminated plant and materials. Signs will be erected at works sites to inform concrete delivery drivers that washout is not permitted outside these areas.
- Ensuring disposal of raw or uncured waste concrete is controlled using approved waste disposal and/or concrete wash-out pits to ensure that seepage to drains from the site is avoided.

- Water collected in wash pits will be tankered off-site for treatment at an appropriate licensed facility, ensuring none is allowed to overflow or infiltrate to ground.
- Employing best practice in bulk-liquid concrete management addressing pouring and handling, secure shuttering/formwork, ensuring adequate curing times. Where shuttering is used, measures will be put in place to prevent against shutter failure and control storage, handling and disposal of shutter oils.
- Treating cement-laden runoff and dewatering effluent in settling tanks before allowing discharge to watercourses.
- Dust suppression using water sprayers during demolition of quay walls or other activities resulting in the creation of cement dust.
- Limit hydrocarbons from entering watercourses by placing controls at all sources and pathways including, at a minimum, the following measures:
- Training operatives in the use of spill kits and keeping spill kits at each work site.
- Ensuring all fuels and oils are stored in bunded trays at least 20 m from any watercourses or surface water feature. Trays will be bunded to 110% of the capacity of the fuel volume.
- Runoff from construction plant washdown to be collected and passed through an oil-water separator before release into the environment.
- Staff parking to be restricted to designated areas.
- Refuelling activities to be restricted to designated, bunded areas, at least 20 m from any watercourse or surface water feature.
- All construction plant to be regularly maintained and checked for oil and fuel leaks before use. Drip trays to be available on site.
- Consideration to be given to the use of biodegradable fuels and oils, where possible.

Limit construction debris entering watercourses due to wall construction by:

- Edge protection along the riverfront or a floating boom cordoning off an area of the river below the works to be implemented to prevent debris entering the river.

Flood preparedness:

- Checking water levels at Rahans gauge on a daily basis or twice daily during times of high flow when works are occurring in the vicinity of the River Moy.
- Monitoring the tide forecast.
- Developing an emergency response and evacuation procedure for all works areas including removal of potential contaminants and construction plant.

Miscellaneous:

- Following consultation with IFI, instream works are restricted to appropriate seasonal windows.
- Instream works areas to be left clean of all residual construction waste and potential pollutants before re-flooding.
- Backup pumps and generators to be in place where over-pumping is taking place to mitigate flood risk.
- If no foul sewer connection is available at the compound and works sites, foul water is to be stored and tankered away for treatment as needed.
- Construction sequencing to proceed from downstream to upstream on all watercourses.
- Customers to be notified in advance of watermain outages to allow time to prepare.

Measures that have been incorporated into the design:

- The timing of the instream works will reduce the impact on aquatic wildlife and the dewatering requirements.

- The timing of the instream works will reduce the likelihood of a high flow event occurring while they are taking place, minimising the potential increase in flood risk by occupation of the floodplain.
- To minimise temporary reductions in floodplain storage on the Brusna, the instream works area cofferdam will have a top-level equivalent to the 50% AEP event. The sequencing will be such that the bridge parapet will be installed before the scour protection.
- The bridge parapet to be installed on the Brusna will be prefabricated to reduce the risk of cementitious pollution on site.
- Best practices to be adhered to as outlined in publications by CIRIA (2001, 2006a, 2006b) and IFI (Guidelines on protection of fisheries during construction works in and adjacent to waters).

A Construction and Environmental Management Plan (CEMP) shall be prepared. A suitably qualified and experienced Ecological Clerk of Works (ECoW) will be employed during the construction phase of the project to ensure all environmental impact prevention controls relevant to construction activities occurring at the time are in place. The ECoW will liaise with the Local Authority, the IFI and NPWS. The ECoW will be responsible for regular inspection and monitoring through all phases of construction/operation and provide ecological advice as required.

The ECoW will be responsible for:

- Prior to the commencement of construction works, the scope, programme and phasing of update habitat and species surveys will be defined by the ECoW in consultation with the Client and Main Contractor. Given the duration of the construction works, the update habitat and species surveys will need to be appropriately phased, mindful of the planned work and seasonal constraints. These surveys will be completed prior to any site preparation works at any one site.
- A derogation licencing is required for otter and further agreement with NPWS on this matter will be observed. The need for derogation licencing for any particular phase of works will need to be informed by the findings of the updated pre-construction surveys. The level of surveying will need to be sufficient to inform any derogation licensing which may be required. The need for derogation licensing will be determined by the ECoW prior to any works commencing, including site preparation works. The need for derogation licences will be kept under review by the ECoW as the works progress based on the findings of the update surveys completed.
- The ECoW will oversee the implementation of the eradication of invasive alien species, however, the “sign off” of the works required to remove/eradicate invasive alien species will be completed by a specialist contractor specialising in such eradication.
- The CEMP will be developed further in consultation with the contractor. It will be the role of the ECoW to ensure that all the relevant ecological mitigation measures set out below and within the NIS are incorporated into the CEMP and implemented thereafter. The ECoW will review and input to the final construction phase CEMP in respect of ecological matters.
- The ECoW is responsible for the supervision and monitoring of all licensed activities to ensure implementation of biodiversity management requirements is achieved. The ECoW shall not delegate duties to other staff. The only exception is for unforeseen absence and annual leave cover, in which case the Site Manager shall appoint a suitably qualified back-up ECoW to temporarily fulfil the role. Training for each member of staff on their specific area of responsibility to implement environmental controls shall be carried out before the commencement of that operation. A record of all training carried out shall be maintained in the CEMP.
- In addition to the fencing of the Proposed Scheme boundary as part of the enabling works, any other vegetation within the Proposed Scheme boundary which is capable of being retained during the construction works will be fenced off with suitable protective fencing and location to be specified by the ECoW. The fencing will form a clear barrier between retained habitats within and adjacent

to the Proposed Scheme boundary which includes European Sites. This includes the retention of trees, hedgerow, woodland, grassland, aquatic features etc. The same measures as stipulated below with respect to avoiding unintended incursion will also be applied to these areas.

- To avoid unintended incursion by personnel, equipment and materials, the construction site boundary will be fenced off and site access/egress points constructed. Only site access/egress points will be used by personnel and equipment. Signage will be placed at intervals along the fencing stating, “no access or storage of materials beyond this point” (or similar). The signage to face inwards into the construction site. As part of the on-site ECoW induction for construction personnel, it will be stated that there will be no access for personnel or equipment and no storage of construction materials beyond the fenced construction boundary.
- The ECoW will review the fencing plan prior to its installation. They will also undertake a site walkover of all areas where fencing is to be erected to ensure that no pathways of connectivity for commuting foraging QI species (e.g. otter) will be disconnected by the fencing. Where necessary, fencing will include mammal passes or other necessary features to allow for commuting/foraging QI species.

Further mitigation shall include:

- Consultation with Inland Fisheries Ireland

The IFI will be given an opportunity to review the detailed Construction Method Statement (CMS) post-planning, in advance of works commencing. In this regard, a detailed CMS for each area of instream and bankside works as part of the scheme shall be prepared by the contractor and submitted to IFI for final approval, noting that IFI have agreed in principle to all proposed works and have been consulted numerous times through the planning phase. Relevant staff in IFI Ballina must be consulted by the contractor prior to commencement of any instream works in each of the channels, providing an opportunity to refine the CMS in compliance with the Schedule of Environmental Commitments, updated subject to planning conditions. Any further requirements deemed necessary to comply shall become part of the CMS and be agreed with the IFI no less than 6 weeks in advance of construction works commencing.

- Table 7-1: of the NIS sets out Timing Restrictions (work allowed) for watercourse, watercourse reach and types of works.
- Pre-Construction Surveys
- Invasive Alien Plant Species Management
- Mitigation Measures for Noise and Vibration during Construction Activities
    - Limiting the hours of construction to daytime only unless absolutely necessary.
    - Work practices, equipment noise control and screening shall be in compliance with BS 5228-1:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 1: Noise, and BS 5228-2:2009+A1:2014 Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration (together referred to as B.S. 5228).
    - Typical work practices include:
        - Scheduling of noisy works to normal working hours.
        - Adopting quiet working methods, using plant with lower noise emission levels.
        - Adopting working methods that minimise vibration generation particularly with regard to demolition.
        - Plant such as pumps and generators used on or near sensitive locations will be contained within an acoustic enclosure.

- Plant and machinery used on-site will comply with the European Commission (EC)(Construction Plant and Equipment) Permissible, Noise Levels Regulations, 1988 (S.I. No. 320 of 1988).
- All noise producing equipment will comply with S.I. No 632 of 2001 European
- Communities (Noise Emission by Equipment for Use Outdoors) Regulations 2001.
- Ensuring that all plant is properly maintained, (mechanisms properly lubricated, faulty silencers replaced, worn bearings replaced, cutting tools sharpened etc.).
- Closing acoustic covers to engines when in use or idling.
- Use of electrically powered equipment in preference to internal combustion powered equipment.
- Use of hydraulic equipment in preference to pneumatic equipment.
- Use of wheeled plant in preference to tracked plant.
- Locating plant as far away from noise and vibration sensitive receptors as practicable.
- Installation of site hoardings or perimeter noise barriers.
- Use of temporary acoustic enclosures or screens around specific noisy static plant.
- Avoiding the unnecessary revving of engines and switch off equipment when not in use.
- Starting-up plant and vehicles sequentially rather than at the same time.
- Keeping internal haul routes well maintained to minimise impulsive noise and vibration from vehicles running over discontinuities in the running surfaces.
- Fitting rubber linings to chutes, hoppers and dumper vehicles to reduce impact noise from material transfer.
- Minimising drop heights of materials.
- Carrying out regular inspections of mitigation measures (BPM audits) to ensure compliance with noise and vibration commitments.
- Providing regular briefings for all site-based personnel so that noise and vibration issues (including the requirement to employ BPM at all locations at all times) are understood and that generic and site-specific mitigation measures are explained and adhered to.
- Ensuring that unloading is carried out within the work site rather than on adjacent roads or laybys.
- Phasing of materials deliveries to be controlled on a ‘just in time’ basis to minimise noise and congestion on roads around the site.
- A formal stakeholder engagement process shall be put in place for the duration of the construction phase, including the provision of information to local residents about noise and vibration monitoring results, works likely to cause significant noise or vibration and/or works planned to take place outside of core working hours.
- Channels of communication between the Contractor, the relevant Planning Section (Local Authority) and residents will be established at project commencement.
- Records of any noise complaints relating to the construction operations will be investigated as soon as possible and reported to the Local Authority.

Where works need to be completed outside normal working hours or where proposed works indicate that permissible noise or vibration levels may be exceeded, permission for these works must be sought from the Local Authority in advance of any works taking place. The application

for such works will require a detailed noise control plan and follow up report to be prepared. This plan will include (i) a justification for the works being carried out in the manner proposed, (ii) an assessment indicating what alternatives have been considered, (iii) a statement of the noise control measures from B.S. 5228 to be adopted and how Best Practicable Means will be used to control noise, (iv) an activity specific noise monitoring programme including contact details for persons with the authority to cease working if required by the Local Authority. Each follow up report will include details of any complaints received and the action taken to address such complaints.

A noise and vibration monitoring programme will be implemented for the duration of the construction phase.

Full details of the Contractor's provision for noise and vibration monitoring and procedures including

provisions for publication of monitoring results will be submitted to and approved by the Local Authority prior to commencement of work. The Local Authority shall have discretion to vary the monitoring requirements and publication of results during the course of construction.

- Use of Concrete, Fuel, Oils or Chemicals (Accidental Spillage)
    - Ensuring that all areas where liquids (including fuel) are stored, or cleaning is carried out, are in designated impermeable areas that are isolated from the surrounding area and within a secondary containment system, e.g., by a roll-over bund, raised kerb, ramps or stepped access.
    - The location of any fuel storage facilities shall be considered in the design of the construction compounds. These are to be designed in accordance with relevant guidelines and codes of best practice and will be fully bunded.
    - Good housekeeping at the site (daily site clean-ups, use of disposal bins, etc.) during the entire construction phase.
    - Spill kit to be provided and to be kept close to the storage area. Staff to be trained on how to use spill kits correctly.
    - The CEMP will include an emergency plan to deal with accidental spillages.

- Damage to Flora and Fauna
- Otter Specific Mitigation Measures
    - Pre-construction Surveys (Section 7.1.6 of the NIS) which will ensure the baseline is kept up to date with respect to otter activity across the Proposed Scheme.
    - Invasive Alien Plant Species Measurements (Section 7.1.7 of the NIS) which will ensure that otter habitat is not degraded via the presence of IAPS.
    - Mitigation Measures for Noise and Vibration (Section 7.1.8 of the NIS) which will ensure that disturbance of otter via noise and vibration is eliminated or kept to a minimum.
    - Environmental Incidents and Accidents Measures (Section 7.1.9 of the NIS) which will ensure that otter and otter habitat is not affected by a pollution event.
    - Water Protection Measure (Section 7.1.12 of the NIS) which will ensure that otter, otter habitat and otter prey species are not affected by a water pollution event. In addition to the above mitigation measures, the following otter specific mitigation measures described in the following sections will be implemented:
        - Derogation Licencing (Section 7.1.10.1 of the NIS)
        - Measures for Dealing with Otter Holts (Section 7.1.10.2)
        - Measures Regarding Loss and Disturbance of Otter Habitat (Section 7.1.10.3)
            - Restricting work hours, avoiding nighttime work
            - Restricting works areas and ensuring programme of works allows for couching spots and free movement

        - Restricting lighting and avoiding light spill
        - Planting of trees.
    - Measures to Protect Against Mortality (Section 7.1.10.4)
    - Watching Brief During Site Clearance (Section 7.1.10.5)
    - Tall Herb Swamp Measures (Section 7.1.10.6)

- SCI Bird Species Specific Measures
    - Water Quality Protection Measures (Section 7.1.12 of the NIS) which will ensure that SCI bird species, SCI bird species habitat and SCI bird species prey items are not affected by a water pollution event.
    - Environmental Incidents and Accidents Measures (Section 7.1.9 of the NIS) which will ensure that SCI bird species and SCI bird species habitat is not affected by a pollution event.
    - Invasive Alien Plant Species Measures (Section 7.1.7 of the NIS) which will ensure that SCI bird species habitat is not degraded via the presence of IAPS.
    - Noise and Vibration Measures (Section 7.1.8 of the NIS) which will ensure that disturbance of SCI bird species via noise and vibration is eliminated or kept to a minimum.
- Silt Fencing Specifications
- Embankment Settlement
- Infiltration of Surface Runoff
- Loss of Soil and Bedrock Reserves
- In-Channel Works (Dewatering)
    - Where dewatering is required to facilitate culvert upgrades, works will be undertaken during low water level conditions and within the seasonal restrictions placed on the programme using an appropriate method of water management, e.g., dam and pump-over, temporary piping. To avoid the use of sheet piles, cofferdams for dewatering will be constructed using geotextile sandbags and silt netting to prevent the influx of water into the workings and also to prevent sediment from entering the river.
    - The extent of dewatering from cofferdam areas is limited by using smaller sections (50m reaches in the Ridgepool RHS) and the volumes will be small and local in nature over a short timeframe in terms of groundwater and is therefore not expected to result in any significant impact on groundwater levels. Treatment of river ingress water to cofferdams is addressed in Sections 7.1.12 to 7.1.14 (below). In order to mimic the naturally occurring substrates, river margin reinstatement measures prior to cofferdam removal are set out in Section 7.1.13 and Section 7.1.14.
    - There will be no direct discharge of surface water from any element of the works without suitable attenuation and treatment of sediments. New culverts and culvert upgrades are required to be constructed in accordance with the requirements of the Office of Public Works (OPW) and IFI.
- Specific River Moy (Ridgepool) Measures
- Specific River Moy (Downstream of N59 Lower Bridge) Mitigation Measures
- Specific Brusna (Glenree) Mitigation Measures
- Specific Measures for White-clawed crayfish

Operational Phase

- OPW Guidance will be adhered to for periodic maintenance and/or repair of flood defences.

- An Operation and Maintenance Manual (O&M Manual) will be developed for Mayo County Council with the input of an ecologist and will include an inspection and maintenance regime of all flood defence infrastructure. Maintenance activities may include structural repairs, culvert inspection and jetting, vegetation management, channel maintenance and pumping station maintenance.
- To account for climate change, the Proposed Scheme has been designed to be adaptable to the High End Future Scenario (HEFS) standard of protection (SoP) climate change in a manner that will require further construction activity such as raising walls or extending embankments (RPS, 2023b). Environmental assessments will be completed before such activity is carried out.
- General mitigation measures relevant to water protection are:
    - Flood preparedness.
        - Operational protocols to be included in the O&M Manual.
    - Measures that have been incorporated into the design.
        - The proposed walls on the Brusna have been set back as far as possible to mitigate disconnection to the floodplain.
        - The hydrocarbon interceptors will be regularly maintained according to manufacturer's specifications to ensure their ongoing efficacy to mitigate against hydrocarbons entering the watercourse during pumping.
        - Scour and erosion protection measures have been incorporated on the Brusna and Bunree watercourses.
- 7.2.2 of the NIS sets out Specific Brusna (Glenree) Mitigation Measures with respect to:
    - Riparian tree loss LHS between river and R294 road
    - Fish passage – design and construction of scour protection at Rathkip/Shanaghy Bridge

Monitoring

- Construction Phase
    - Daily Site Monitoring Procedure
        - General Procedures
        - Weather Forecasts
        - Visual Checks
        - Weekly and Monthly Site Monitoring Procedures
        - Water Sampling Schedule
        - Water Quality Sampling – Action Trigger Points
        - Cofferdam Pump-out Water Management
        - Biological Water Quality Monitoring
        - Noise and Vibration
        - Embankment Monitoring
        - Excavations Monitoring
        - Habitat Recovery Monitoring

Assessment of issues that could give rise to adverse effects in view of conservation objectives

The likelihood of adverse effects to a European site from the proposed development has been determined based on the following indicators:

- Water quality degradation – Hydrology.
- Water Quality degradation – Hydrogeological Effects
- Disturbance/displacement of species; and
- Habitat loss, alteration or fragmentation;

Examples:

(i) Water quality degradation - Hydrology

The main pathway by which adverse ecological impacts could potentially occur and affect the integrity of the River Moy SAC, Killala Bay/Moy Estuary SAC and or Killala Bay/Moy Estuary SPA is by hydrological means, either directly or indirectly into the River Moy and its tributaries, notably, the Brusna River, Bunree Stream, Tullyegan Stream and Quignamanger Stream. The Proposed Scheme is located within the River Moy SAC with works required within the river itself in addition to four tributaries which flow into the SAC. Therefore, there is direct hydrological connectivity between the scheme area and the SAC.

The Proposed Scheme is located within the Killala Bay/Moy Estuary SAC with works required within the Moy estuary (IE_WE_420_0300) itself. Therefore, there is direct downstream hydrological connectivity between the Proposed Scheme area and SAC.

The Proposed Scheme is located within the Killala Bay/Moy Estuary SPA with works required within Moy estuary (IE_WE_420_0300) itself. Therefore, there is direct connectivity between the Proposed Scheme area and the SPA.

Lough Conn and Lough Cullin SPA (004228). This SPA is located upstream of the Proposed Scheme area, therefore no suitable hydrological connectivity between the Proposed Scheme area and the SPA exists.

Hydrological effects arising from the construction and/or operational and maintenance phases of the of the Proposed Scheme. These effects can arise from a number of different sources including an accidental release of pollutants (e.g., suspended solids, silt, concrete, fuels, oils and lubricants) which could be released from the site (e.g., from machinery or during construction activities) into the surface water network. This could cause a consequent reduction in water quality in European Sites hydrologically linked via the surface water network to the site during the works. Certain IAPS can also result in a reduction in surface water quality as their presence on riverbanks as they die back in the autumn/winter months can cause riverbank erosion and subsequent sedimentation of the watercourse. Instream works can also cause barriers to migratory species while the construction of flood relief measures can cause changes to the hydraulic character of affected watercourses in addition to creating habitat fragmentation.

The operational and maintenance phase of the Proposed Scheme has the potential to result in changes to water quality associated with the new flood defences, new storm water drainage outfalls and new surface water pumping station to the Moy. Flood walls will, however, help prevent contamination arising from uncontrolled over-bank flows during extreme events, providing a positive effect on water quality in the long-term for the freshwater and estuarine River Moy. Upgraded storm water outfalls will be fitted with hydrocarbon interceptors. This is likely to reduce the level of waterborne contaminants reaching SCI's and QI's in the River Moy but require regular maintenance to retain this function. In addition, four new pumping stations will be installed as part of the Proposed Scheme to manage excess surface water during floods. The pumping stations will collect urban runoff and outfall directly to the River Moy. These will be fitted with hydrocarbon (HC) interceptors which will require regular maintenance to ensure proper function. The worst-case scenario (i.e., no maintenance) amounts to a neutral effect as surface water currently discharges uncontrolled in the absence of treatment.

Mitigation measures and conditions

The risk of occurrence, however, can be adequately prevented through the implementation of standard and bespoke best management practices and controls. Clear bespoke mitigation measures are recommended with regards to protection of water quality. Section 7 'Mitigation', of the NIS and mitigation measures set out above, which outline a programme of detailed mitigation measures designed to ameliorate potential adverse water quality impacts from the proposed development and

the indirect habitat impacts that could significantly affect the Conservation Objectives of the River Moy SAC, Killala Bay/Moy Estuary SAC and or Killala Bay/Moy Estuary SPA.

iV) Water quality degradation - Hydrogeological effects

Hydrogeological effects arising from the construction and/or operational and maintenance phases of the Proposed Scheme. These effects can arise from a number of different groundwater interference sources. Groundwater interference is deemed to involve changes in flow, yield and quality of the groundwater body arising from works which may extend into the water table in certain conditions.

The River Moy SAC (002298) is located within multiple groundwater bodies including the Ballina (IE_WE_G_0035) and Ballina Gravels Group 1 (IE_WE_G_0113) groundwater bodies. The scheme area intersects these two groundwater bodies therefore there is potential for hydrogeological connectivity between the SAC and the scheme area.
The Killala Bay/Moy Estuary SAC (000458) and the Proposed Scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SAC and the Proposed Scheme area.
The Killala Bay/Moy Estuary SPA (004036) and the Proposed Scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SPA and the Proposed Scheme area.
The Lough Conn and Lough Cullin SPA (004228) and scheme area are both located within the Ballina (IE_WE_G_0035) groundwater body. Therefore, there is potential for hydrogeological connectivity between the SPA and the scheme area. However, the groundwater flows towards the nearest rivers and lakes, therefore groundwater is most likely to flow from the Proposed Scheme to the River Moy. Consequently, it is not expected that there will be any hydrogeological impacts to the Lough Conn and Lough Cullin SPA.

Discharge to ground - runoff water containing silt, sediments and/or other pollutants into the local groundwater. Groundwater contamination could affect the quality of aquatic/wetland habitats and species. Receptors include wetland habitat associated with Killala Bay/Moy Estuary SPA occurring adjacent to the Proposed Scheme. SCI waterbirds, otter, harbour seal, white-clawed crayfish, and QI fish species associated with River Moy SAC, Killala Bay/Moy Estuary SAC and Killala Bay/Moy Estuary SPA.

Mitigation measures and conditions

To reduce the effects on the River Moy SAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA that are likely to arise as a result of the Proposed Scheme, mitigation measures to be implemented have been set out in detail in Chapter 7.0 of the NIS.
These mitigation measures set out clear commitments for surface water management and measures to prevent environmental incidents and accidents, amongst others, during construction of the Proposed Scheme. A number of operational and maintenance phase mitigation measures have also been outlined.

(iii) Disturbance/displacement of species;

Disturbance of QI/SCI species of the River Moy SAC, Killala Bay/Moy Estuary SAC, Killala Bay/Moy Estuary SPA and or Lough Conn and Lough Cullin SPA from the construction and/or operational and maintenance phases of the Proposed Scheme. Sources of disturbance include noise, vibration, dust, lighting and vehicle emissions associated with construction traffic and activities and the disturbance

arising from the presence and activities of construction personnel. Disturbance may also arise from the spread of IAPS which may hinder foraging activities and/or the movement of QI species throughout their environment. These effects are likely to extend into areas beyond the Proposed Scheme boundary.
Temporary or permanent loss of supporting habitat (e.g. for resting, foraging etc.) due to in-stream and bankside construction works on the River Moy/Moy Estuary and Brusna (Glenree) River. Receptors include otter, harbour seal, white-clawed crayfish, salmon, sea lamprey and brook lamprey associated with the River Moy SAC and Killala Bay/Moy Estuary SAC and SCI bird species associated with Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA.

Mitigation measures and conditions
The implementation of a programme of mitigation measures as recommended in Section 7 'Mitigation', of the NIS, that are designed to ameliorate potential impacts from the proposed development and the disturbance/displacement impacts that may ensue. Mitigation measures in relation to protection of the prevention of introduction/spread of invasive alien plant and animal species, and mitigation pertaining to the protection of habitats are outlined in Section 7.1.7, of the NIS. Residual impacts are assessed in Section 9, of the NIS

(ii) Habitat loss, alteration or fragmentation:

There will be temporary or permanent loss of supporting habitat (e.g. for resting, foraging etc.) due to in-stream and bankside construction works on the River Moy/Moy Estuary and Brusna (Glenree) River. Increased lighting in the vicinity of the Proposed Scheme as a result of construction activity. Presence of machinery and other construction activities creating an increased mortality risk to QI/SCI species. Vegetation clearance and in-stream works present a mortality risk via direct contact with machinery and/or equipment. As stated above, instream works can also cause barriers to migratory species while the construction of flood relief measures can cause changes to the hydraulic character of affected watercourses in addition to creating habitat fragmentation. Open excavations also pose a mortality risk should entrapment occur. Also, Habitat fragmentation as a result of bridge repair works at Rathkip/Shanaghy - Brusna (Glenree) River.

Receptors include otter, harbour seal, white-clawed crayfish, salmon, sea lamprey and brook lamprey associated with the River Moy SAC and Killala Bay/Moy Estuary SAC and SCI bird species associated with Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA.

Mitigation measures and conditions
Mitigation measures are recommended with regards to noise and vibration during construction, to protect against environmental incidents and accidents, also protection of Otter. Section 7.0, of the NIS, outlines a programme of mitigation measures designed to protect Otter, SCI bird species, ameliorate potential adverse water quality impacts from the proposed development and the indirect habitat impacts that might ensue, are also set out in detail above.

In-combination effects
The Proposed Scheme is expected to reduce intermittent uncontrolled flooding in the urban and wider Ballina area. This is likely to contribute to water quality improvement in the long term by reducing contamination of flood water and storm water with sewage/wastewater. This would likely result in

long-term positive effects on aquatic habitats that support QI species otter, white-clawed crayfish, salmon, sea lamprey, brook lamprey and harbour seal, QI habitats and SCI bird species of the estuarine River Moy.

The examination of changes to instream hydraulic conditions as a result of the Proposed Scheme shows there will be no significant change to hydromorphology of the River Moy and Brusna (Glenree) River with respect to fisheries habitats (see Section 6.4). This means that bed substrate mobilisation, transport and deposition patterns will not significantly alter over baseline conditions. Consequently, instream habitats will be subject to imperceptible, if any, physical modification in terms of: (1) sea lamprey spawning substrates in a discrete area of the Ridgepool and discrete patches of lamprey nursery habitat in the Ridgepool and river margin habitat downstream of the N59 Lower Bridge. The Proposed Scheme, therefore, does not contribute to any potential in-combination pressure on river hydromorphology.

It is considered that in the absence of mitigation waterborne pollutant discharge (sediment, hydrocarbons, concrete) during the construction phase of the Proposed Scheme could combine with discharges from other localised construction projects, increasing concentrations (e.g., of suspended solids) intermittently. In a worst-case scenario temporary to short term, significant, negative in-combination effects on QI species (salmon, lamprey, otter, harbour seal, white-clawed crayfish), SCI bird species and marine QI habitat may result in the form of habitat sedimentation and adverse physical/physiological effects on QI/SCI species and/or their prey items.

There is potential for in-combination effects in conjunction with ongoing OPW Arterial Drainage Maintenance. Drainage works that involve physical removal of substrates (dredging) cause disturbance, mortality and localised decline in density of aquatic biota with recovery taking up to a number of years. In-combination effects on QI fish species may be significantly negative if such works occurred in channels at the same time as flood relief construction (especially instream works). In this respect, it is noted that the Lower River Moy and the Brusna (Glenree) River are swift and predominantly eroding in the areas where instream works are proposed and would not be subject to dredging as they are largely self-maintaining. Elevated suspended solids arising from the Proposed Scheme in the construction phase in combination with localised channel dredging may cause enhanced negative effects on aquatic biota related to sedimentation of salmon and lamprey spawning areas and adverse physical/physiological impacts on QI fish. Significant negative effects are possible, if dredging occurred at the same time as construction works on locally hydrologically connected OPW channels as follows:

- Moy – Lower C1 between Tullyegan C1/7 confluence and Brusna C1/5 confluence.
- Brusna (Glenree) – C1/5 between C1/5/5 confluence in townland of Behymore and River Moy confluence including no dredging in tributaries C1/5/1, C1/5/2, C1/5/3 and C1/5/4.
- Tullyegan – Lower C1/7 in townland of Commons.

Likely significant in-combination effects can be mitigated as set out in Section 7 of the NIS.

I am satisfied that in-combination effects has been assessed adequately in the NIS. The applicant has demonstrated satisfactorily that no significant residual effects will remain post the application of mitigation measures and there is therefore no potential for in-combination effects.

I conclude that the proposed development would have no likely significant effect in combination with other plans and projects on the qualifying features of any European site(s). No further assessment is required for the project.

Findings and conclusions

It was found that in the absence of mitigation the Proposed Scheme could (worst case) result in adverse effects on integrity with respect to identified QI/SCI species and habitats 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 NIS comprehensively demonstrates, based on best scientific knowledge available, that subject to implementation of bespoke mitigation measures and monitoring as detailed above, it can be objectively concluded that the Proposed Scheme on its own and **or in combination with other plans and projects** will not adversely affect the integrity of these European Sites having regard to site-specific conservation objectives.

Based on the information provided, I am satisfied that adverse effects arising from aspects of the proposed development can be excluded for the European sites considered in the appropriate Assessment.

Direct and Indirect impacts (instream works and near bankside works, noise and disturbance) would be temporary in nature and bespoke mitigation measures are described to prevent loss and disturbance of Otter habitat, Otter mortality (Otter specific mitigation measures and Derogation Licensing) and water quality protection measures, environmental incidents and accidents measures and IAPS measures. To avoid or minimise impacts to the River Moy SAC and Killala Bay/Moy Estuary SAC and SCI and QI species associated with Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA during construction of the Flood Relief Scheme, management measures involving the use of phasing of the works, restrictions on the construction programme to accommodate angling activities and fishing rights on the River Moy with construction activities to take place outside of angling season in some areas. There are also restrictions as a result of fish spawning season. An Environmental Clerk of Works (EnvCoW) shall be appointed for the duration for the construction phase to ensure that the mitigation measures outlined in the CEMP (including any updates to this document following consent) and any associated method statements, are implemented in full. The EnvCoW will have responsibility of being fully aware of all mitigation measures, as well as being aware of the reasons for the implementation of all mitigation measures. I am satisfied that the mitigation measures proposed to prevent adverse effects have been assessed as effective and can be implemented. There are no proposals within plans, subject to mitigation, that could act in-combination with the Proposed Development.

Reasonable scientific doubt

I am satisfied that no reasonable scientific doubt remains as to the absence of adverse effects.

Site Integrity

The proposed development will not affect the attainment of the Conservation objectives of the River Moy SAC and Killala Bay/Moy Estuary SAC, the Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA. Adverse effects on sites integrity can be excluded and no reasonable scientific doubt remains as to the absence of such effects.

Appropriate Assessment Conclusion: Integrity Test

In screening the need for Appropriate Assessment, it was determined that the proposed development could result in significant effects on the River Moy SAC and Killala Bay/Moy Estuary SAC and Killala Bay/Moy Estuary SPA and Lough Conn and Lough Cullin SPA in view of the conservation objectives of those sites and that Appropriate Assessment under the provisions of 177AE was required.

Following an examination, analysis and evaluation of the NIS, all associated material submitted and taking account all observations, I consider that adverse effects on site integrity of the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228) can be excluded in view of the conservation objectives of these sites and that no reasonable scientific doubt remains as to the absence of such effects.

My conclusion is based on the following:

- The scientific information on file in respect of the River Moy SAC (002298) and Killala Bay/Moy Estuary SAC (000458), and Killala Bay/Moy Estuary SPA (004036) and Lough Conn and Lough Cullin SPA (004228)
- The available information as presented in the submitted documents regarding habitats, species, ground and surface water pathways between the application site and the European sites and other information available, (incl. the desktop studies and field surveys), NPWS website and aerial imagery,
- The nature and scale of the proposed development and works and the nature of potential likely significant effects,
- The separation distances and the lack of connections between the proposed development site and the European sites examined in this assessment,
- The nature of the qualifying interests, special conservation interests and conservation objectives of the European sites,
- The potential impacts and mitigation measures proposed for all phases of the proposed development.

APPENDIX 2