BALLINA FLOOD RELIEF SCHEME

Chapter 19: Landscape and Visual

MGW0290-RPS-EI-XX-R-EN-1900
Chapter 19 Landscape and Visual
S4. P08
April 2025

Document status

Version	Purpose of document	Authored by	Reviewed by	Approved by	Review date
S4. P08	Final for Submission	JM	JF	PJG	April 2025

Approval for issue

PJG	4 April 2025

Prepared by:

RPS

Prepared for:

Mayo County Council

Dublin | Cork | Galway | Sligo | Kilkenny
rpsgroup.com

RPS Group Limited, registered in Ireland No. 91911
RPS Consulting Engineers Limited, registered in Ireland No. 161581
RPS Engineering Services Limited, registered in Ireland No. 99795
The Registered office of each of the above companies is West Pier Business Campus, Dun Laoghaire, Co. Dublin, A96 N6T7

Contents

Tables

Figures

19 LANDSCAPE AND VISUAL

19.1 Introduction

This chapter of the EIAR documents the assessment of landscape and visual effects arising from the proposed flood relief Scheme in Ballina, Co. Mayo. The objective of this assessment is to:

- Describe the landscape and visual baseline within a defined study area.
- Assess the likely potential effects of the Proposed Scheme on landscape elements, landscape character and visual amenity.

19.2 Methodology

The assessment of effects on landscape resources and visual amenity are separate but interconnected processes. Landscape is defined, in the European Landscape Convention (ELC, Ref. 6.), as "an area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors".

A clear distinction is drawn between landscape and visual effects as follows:

- Landscape effects relate to the effects of a Proposed Scheme on the physical characteristics of the landscape and its resulting character and quality.
- Visual effects relate to the effects on views experienced by visual receptors (e.g. residents, footpath users, tourists etc.) and on the visual amenity experienced by those people.

19.2.1 Legislation, Policy and Guidance

Planning Policy of relevance to landscape and visual amenity is set out below from the following sources:

- Mayo County Development Plan 2022-2028
- Draft Ballina Local Area Plan 2024-2030

19.2.1.1 Mayo County Development Plan 2022-2028

The Mayo County Development Plan 2022-2028 (MCDP) is the statutory plan which documents the policies and objectives regarding landscape and visual amenity for the county. Those pertaining to landscape character, landscape and visual amenity of relevance to the Proposed Scheme are set out below.

Policy NEP 14 states *'To protect, enhance and contribute to the physical, visual and scenic character of County Mayo and to preserve its unique landscape character.'*

Objective NEO 25 states *'To consider applications for development, along Mayo's' Scenic routes, that can demonstrate a clear need to locate in the area concerned, whilst ensuring that it:*

- *Does not impinge in any significant way on the character, integrity and distinctiveness of the area.*
- *Meets high standards in siting and design.*
- *Contributes to and enhances local landscape character.*
- *Satisfies all other criteria, with regard to, inter alia, servicing, public safety and environmental considerations.*

Rural housing applications along Scenic Routes must comply with the requirements set out in Objective RHO 3 (Chapter 3).'

Objective NEO 26 states '*To consider applications for development, within Mayo's Coastal Areas and Lakeshores and within areas along scenic routes with designated scenic views, that can demonstrate a long-standing social link to the area concerned, whilst ensuring that it:*

- *Does not impinge in any significant way on the character, integrity and distinctiveness of the area.*
- *Cannot be considered at an alternative location.*
- *Meets high standards in siting and design.*
- *Contributes to and enhances local landscape character.*
- *Satisfies all other criteria, with regard to, inter alia, servicing, public safety and environmental considerations.*

Rural housing applications along Coastal Areas and Lakeshores must comply with the requirements set out in Objective RHO 4 (Chapter 3).'

Objective NEO 27 states *'To ensure all development proposals are consistent with the Landscape Appraisal of County Mayo and the associated Landscape Sensitivity Matrix and future editions thereof.'*

Objective NEO 29 states *'Require a Landscape/Visual Impact Assessment to accompany significant proposals, located within or adjacent to sensitive landscapes, where appropriate.'*

Policy NEP 15 states *'To protect the character, visual, recreational, ecological and amenity value of the coast and provisions for public access, while recognising the needs of coastal communities to live, work and interact with the coast.'*

Policy NEP 16 states *'To maintain and enhance our natural coastal defences to increase resilience to climate change.'*

Objective NEO 30 states *'To ensure that the county's natural coastal defences, such as beaches, sand dunes, coastal wetlands and estuaries are not compromised by inappropriate works or development.'*

Objective NEO 32 states *'To investigate how the county's natural coastal defences can be enhanced to increase the climate resilience of our coastal communities.'*

Objective NEO 33 states *'To ensure any new development within areas liable to coastal flooding are assessed and developed in accordance with the Flood Risk Management Guidelines for Planning Authorities (Department of the Environment, Heritage and Local Government and Office of Public Works, 2009) (as updated).'*

19.2.1.2 Ballina Local Area Plan 2024-2030

The Ballina Local Area Plan 2024-2030 (BLAP) is the current statutory plan after the expiration of the Ballina Town & Environs 2009-2015. The BLAP documents the policies and objectives of relevance to landscape and visual amenity for the town in Chapters 4 Town Centre and Regeneration, 8 Built Environment and 9 Natural Environment, which are set out below.

Policies and Objectives of relevance outlined in **Section 4.8,** Chapter 4 Town Centre and Regeneration as follows:

Policy TCP 1 states ***'****Ensure that new development in the town centre and in particular the Opportunity Site Areas comprise of the highest of qualitative and design standards, complimenting the existing historical built fabric, or natural heritage, sustaining Ballina as a town in which to live, work, invest in and do business.'*

Policy TCP 3 states *'Protect the visual character, built and cultural heritage, ambience, and vitality of the traditional heart of the town centre to meet the retailing and service needs of the area, in addition to offering a pleasant and attractive environment for shopping, business, tourism, recreation and living.'*

Policy TCP 4 states *'Actively encourage, support, and facilitate environmental and public realm improvements in Ballina to address environmental quality, urban design, safety, identity, and traffic impact.'*

Policy TCP 5 states *'Support the development of the further public realm projects in Ballina that will enhance the aesthetics of the town's built and natural character and improve the overall ambience and visitor experience of the town.'*

Policy TCP 7 states *'Support and encourage the principle of healthy place-making in Ballina.'*

Objective TCO 2 states *'Support and facilitate the implementation the Draft Public Realm Plan for Ballina, including proposals for improving the pedestrian environment for residents and visitors.'*

Objective TCO 8 states

'a) Promote high quality place-making and public realm in accordance with the Mayo Development Plan 2022 – 2028, including the Development Management Standards, any replacement thereof and any relevant Section 28 Guidance. All development shall demonstrate climate resilience measures to climate-proof critical infrastructure.

b) Ensure the highest quality of public realm and urban design principles are applied in the town centre, and the opportunity areas identified in this Proposed Plan. The success of the public realm is high quality, easily maintained street furniture, soft landscaping. Drainage solutions should be designed on the principles of SuDS.

c) Ensure development proposals have considered the urban design criteria of site context, connectivity, inclusivity, variety, efficiency, distinctiveness, layout, public realm, adaptability, privacy and amenity, parking and detailed design.'

Objective TCO 10 states *'Mayo County Council will prepare, or coordinate, as appropriate, urban design frameworks/masterplans for the Opportunity Sites in Ballina Town to inform future development proposals.'*

Policies and Objectives of relevance outlined in **Section 8.8, Chapter 8 Built Environment** as follows:

Built Heritage Conservation Policies and Objectives

Policy BEP 1 states *'Maintain, conserve, and protect the architectural quality, character and scale of Ballina.'*

Policy BEP 2 states *'Encourage high quality and well-designed buildings, structures, public spaces and streets and support and promote healthy place-making and quality of life.'*

Policy BEP 4 states *'Protect the town centre by ensuring all new development is compatible with the existing character and visual amenity of Ballina.'*

Architectural Heritage and Record of Protected Structures Policies and Objectives

Policy BEP 6 states *'Maintain, conserve and protect the architectural quality and character of the Pearse Street Architectural Conservation Area.'*

Objective BEO 2??? (sic) states *'Identify places of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest, and to define them as Architectural Conservation Areas over the lifetime of the Plan and to undertake an assessment to inform the potential ACA designation for Crocketstown/Quay area or any other special character areas considered by the Planning Authority worthy of such protection in County Mayo.'*

Objective BEO 2 states *'Preserve the protected structures and their settings in Ballina on the Record of Protected Structures and seek to prevent the demolition or inappropriate alteration of Protected Structures, which would adversely impact on the character and special interest of the structure, where appropriate and to review the Record of Protected Structures from time to time as the need arises.'*

Objective BEO 4 states *'Ensure that any alterations or interventions to protected structures shall be executed to a high conservation standard in order to protect their significance or value. Any applications for development of protected structures shall be accompanied by an assessment carried out in accordance with the Councils requirements by an accredited conservation architect, in accordance with the Councils requirements.'*

Placemaking Policies

Policy BEP 10 states '*Encourage and facilitate improvements to the physical fabric and environment of the town, including streetscape, street furniture, landscaping (hard and soft), signage and wirescape, while recognising that both private and public developments can contribute to effective public realm.'*

Policies and Objectives of relevance outlined in **Section 9.7, Chapter 9 Natural Environment** as follows:

Ecological Corridor Objectives:

Objective NEO 6 states *'Protect and enhance existing public open spaces as an amenity and recreational resource for the town and environs.'*

Trees, Hedgerows and other areas of Biodiversity Policies and Objectives

Policy NEP 5 states *'There shall be a presumption against the felling, topping, lopping or wilful destruction of mature trees as part of development proposals. Where a development proposal involves the felling, topping, lopping or threatens the destruction of a mature tree or trees, a tree survey will need to be included in the submission, carried out by a qualified Tree Specialist to justify the exceptional circumstances for their interference. The applicant must demonstrate the justification and rationale for removal of mature trees in terms of effect on ecology and landscape and demonstrate how replacement planting will compensate for loss of trees and woodland features. An assessment of potential tree roost features by a qualified and experienced ecologist may also be requested as part of such proposals.'*

Policy NEP 6 states *'Protect and incorporate existing biodiversity features such as hedgerows and surface water features into the design and construction of new development and public realm. Where the loss of the existing features is unavoidable new biodiversity features should incorporate native species, and species of local provenance to replace the existing hedgerow.'*

Objective NEO 8 states '*Increase tree planting and pollinator friendly planting, in accordance with the recommendations of the All-Ireland Pollinator Plan throughout Ballina and in open spaces in new developments in order to enhance local biodiversity, visual amenity and surface water management in partnership with relevant stakeholders.*'

Objective NEO 9 states *'Ensure that where the presence of invasive species is identified at the site of any proposed development or where the proposed activity has an elevated risk of resulting in the presence of these species, details of how these species will be appropriately managed and controlled will be required.'*

Objective NEO 10 states *'Enhance and promote biodiversity and amenity and to ensure the protection of environmentally sensitive sites and habitats, including where flood risk management measures are planned.'*

19.2.2 Zone of Influence

A Zone of Influence (ZoI) or Landscape and Visual Study Area, see **Figure 19-1**, was identified with reference to desk study data and field survey for the purpose of assessing effects on landscape and visual amenity. The study area is spilt into five sub study areas centred around the five waterbodies that are included in the flood relief works, namely the River Moy, the Quignamanger Stream, Bunree Stream, Brusna River and Tullyegan Stream. The extent of the study was identified to capture potential effects and took account of the nature and scale of the proposed change in the context of the surrounding landscape. Therefore, the Landscape and Visual Study Area extends outside the project boundary of the Proposed Scheme to include a 50 m buffer zone to examine the potential impacts on adjacent the adjacent landscape and visual amenity.

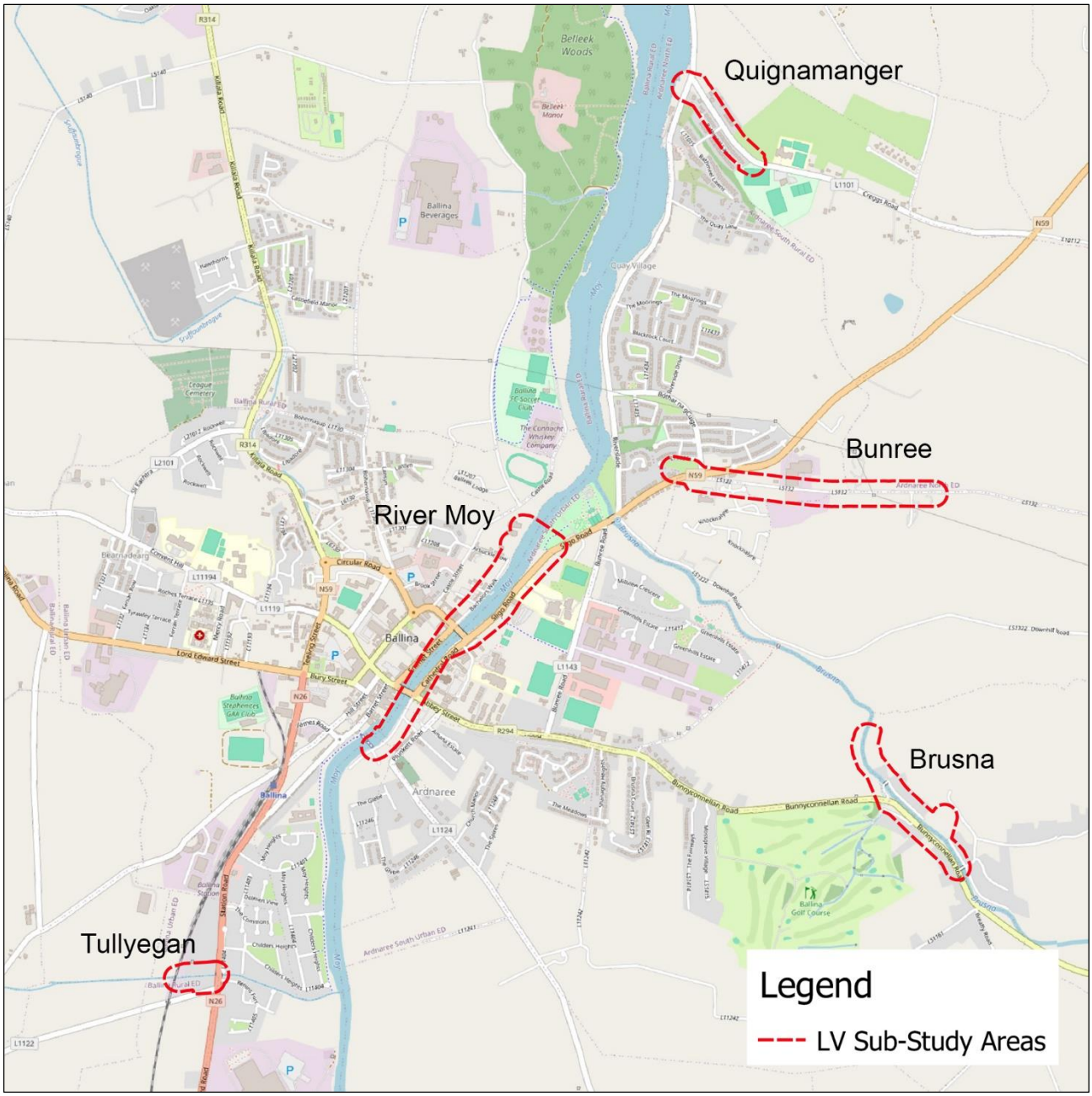

Figure 19-1: Landscape and Visual Study Area (Scale 1:25000)

19.2.3 Sources of Information to Inform the Assessment

The methodology for the landscape and visual impact assessment (LVIA) is informed by published best practice guidance documents as follows:

- Landscape Institute and Institute of Environmental Management and Assessment, Guidelines for Landscape and Visual Impact Assessment, 3rd Edition, (2013), hereinafter referred to as GLVIA 3.
- Technical Guidance Note 06/19 Visual Representation of Development Proposals (The Landscape Institute, 2019).

19.2.4 Key Parameters for Assessment

The likely landscape and visual effects of the Proposed Scheme have been assessed by considering the changes that would occur during site enabling works, construction, operation, and maintenance to the existing landscape and visual amenity as a result of the introduction of the Proposed Scheme. The assessment of effects is arrived at by combining judgements concerning the sensitivity of the landscape or visual receptor (person) with judgements concerning the predicted magnitude of impact resulting from the proposed change.

19.2.5 Assessment Criteria and Significance

The criteria for determining the significance of effects is a two-stage process that involves defining the sensitivity of the receptors and the magnitude of the impacts. This section describes the criteria applied in this chapter to assign levels of sensitivity of the receptors and levels of magnitude of potential impacts.

The likely landscape and visual effects of the Proposed Scheme have been assessed by considering the changes that would occur to the existing landscape and visual amenity as a result of the introduction of the Proposed Scheme. The assessment of effects is arrived at by combining judgements concerning the sensitivity of the landscape or visual receptor (person) with judgements concerning the predicted magnitude of impact resulting from the proposed change. It is important to note that significance is determined on a case-by-case basis using professional judgement with the methodology below as a guide and this approach accords with the guidance in GLVIA 3.

The sensitivity of the landscape and visual receptors is arrived at by combining judgements concerning susceptibility (ability to accommodate change) and value. The magnitude of impact is arrived at by combining judgements concerning size and scale of the change, the geographic extent of the change and its duration and reversibility. This methodology is summarised in the following diagram and is explained in detail below.

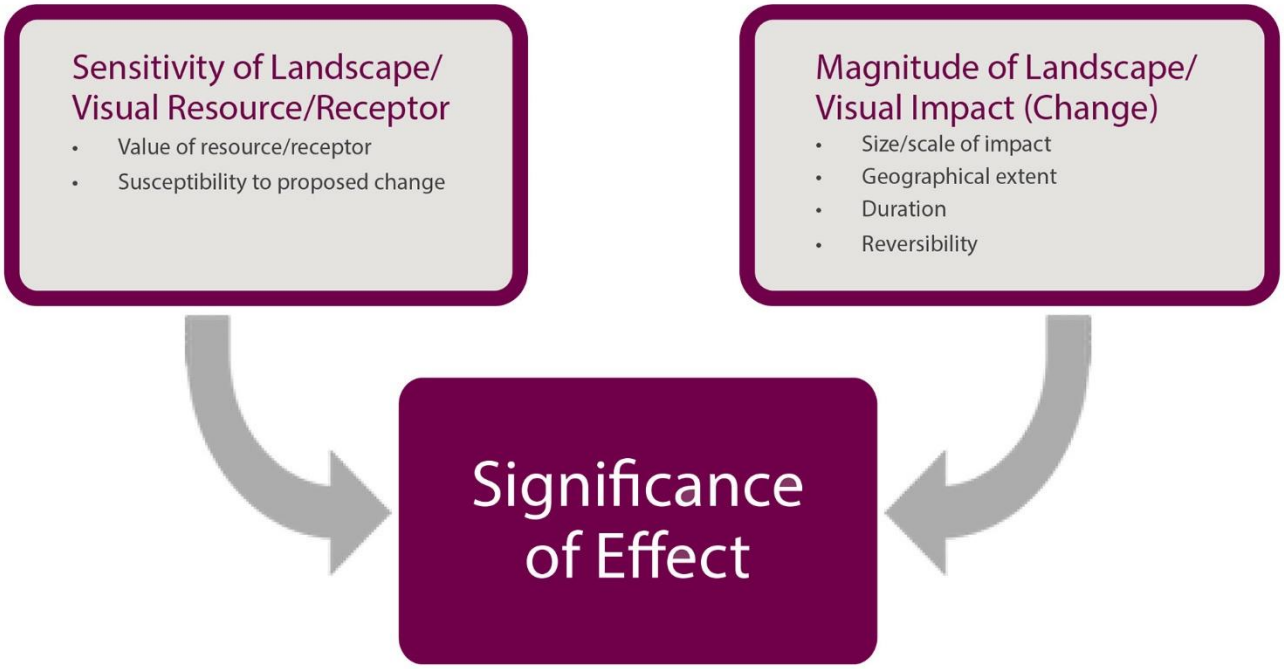

Figure 19-2: Summary of Assessment Methodology

19.2.5.1 Sensitivity of landscape receptors

Sensitivity is determined by assessing both the value attached to a landscape receptor and its susceptibility to the change likely to result from the Proposed Scheme. The sensitivity of a landscape receptor is a combination of 'judgements of their susceptibility to the type of change or development proposed and the value attached to the landscape' (GLVIA 3, para 5.39).

19.2.5.1.1 Value

The value of the landscape receptor is established as follows:

- *'the value of the Landscape Character Types or Areas that may be affected, based on review of any designations at both national and local levels, and, where there are no designations, judgements based on criteria that can be used to establish landscape value; and*
- *the value of individual contributors to landscape character, especially the key characteristics, which may include individual elements of the landscape, particularly landscape features, notable aesthetic, perceptual or experiential qualities, and combinations of these contributors' (GLVIA, para 5.44).*

The value of a landscape receptor will reflect relevant designations and their level of importance as referenced in GLVIA 3 (para 5.45). It is important to note that these designations are not the sole indicator of value or valued landscapes. Non-designated landscapes can be of value. An assessment of value is made by reference to clearly stated and recognised criteria, including perceptual qualities, such as those detailed in GLVIA 3 (Box 5.1 para 5.28).

Landscapes are valued at international, national, local authority or community level with examples as follows:

- internationally valued landscapes such as World Heritage Sites.
- nationally valued landscapes such as Areas of Outstanding Natural Beauty and National Parks.
- locally valued landscapes such as those covered by local authority landscape designation or, in the absence of such designation, landscapes assessed as being of equivalent value using clearly stated and recognised criteria.
- landscapes that are not nationally or locally designated or judged to be of equivalent value using clearly stated and recognised criteria but are valued at community level.

19.2.5.1.2 Susceptibility

Landscape susceptibility is defined as follows: *'the ability of the landscape receptor (whether it be the overall character or quality/condition of a particular landscape type or area, or an individual element and/or feature, or a particular aesthetic and perceptual aspect) to accommodate the proposed development without undue consequences for the maintenance of the baseline situation and/or the achievement of landscape planning policies and strategies'* (GLVIA, para 5.40).

The levels of sensitivity for landscape receptors are broadly defined in accordance with **Table 19-1**.

Table 19-1: Landscape sensitivity

Sensitivity	Susceptibility	Value
Very High	Exceptional landscape quality, no or limited potential for substitution. Key elements/features well known to the wider public. The landscape receptor is of very high susceptibility to the Proposed Scheme and has little or no tolerance to change.	Nationally/internationally designated/valued landscape, or key elements or features of national/internationally designated landscapes.
High	Strong/distinctive landscape character; absence of landscape detractors. The landscape receptor is of high susceptibility to the Proposed Scheme and has low tolerance to change.	Regionally/nationally designated/valued countryside and landscape features or landscapes judged to be of equivalent value using clearly stated and recognised criteria.
Medium	Some distinctive landscape characteristics; few landscape detractors.	Locally or regionally designated/valued countryside and landscape features or

Sensitivity	Susceptibility	Value
	The landscape receptor is of medium susceptibility to the Proposed Scheme and has medium tolerance to change.	landscapes judged to be of equivalent value using clearly stated and recognised criteria
Low	Absence of distinctive landscape characteristics; presence of landscape detractors. The landscape receptor is of low susceptibility to the Proposed Scheme and has high tolerance to change.	Undesignated landscapes and landscape features which have little value to local communities.
Negligible	Absence of positive landscape characteristics. Significant presence of landscape detractors. The landscape receptor is of negligible susceptibility to the and has very high tolerance to change.	Undesignated landscapes and landscape features which have no particular scenic qualities or are in poor condition or altered by presence of intrusive manmade structures.

19.2.5.2 Magnitude of impact on landscape receptors

The effect on landscape receptors and the overall judgement of the magnitude of landscape impact is based on combining judgements on 'size or scale, the geographic extent of the area influenced, and its duration and reversibility' (GLVIA 3, paragraph 5.48).

The changes caused to landscape receptors as a result of the Proposed Scheme is evaluated in terms of their size or scale, geographical extent, duration and reversibility. Duration is defined as short-term lasting 0-5 years, medium term lasting 5-10 years, long-term lasting 10-20 years and permanent lasting more than 20 years.

Levels of magnitude of impact on landscape receptors are defined in **Table 19-2**.

Table 19-2: Magnitude of impact on landscape receptors

Magnitude of Impact	Definition
Large	Total loss or addition or/very substantial loss or addition of key elements/features/patterns of the baseline (i.e. pre-development landscape) and/or introduction of dominant elements which are uncharacteristic with the attributes of the receiving landscape.
Medium	Partial loss or addition of or moderate alteration to one or more key elements/features/patterns of the baseline (i.e. pre-development landscape) and/or introduction of elements that may be prominent but may not necessarily be substantially uncharacteristic with the attributes of the receiving landscape.
Small	Minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline (i.e. pre-development landscape) and or introduction of elements that may not be uncharacteristic with the surrounding landscape.
Negligible	Very minor loss or addition of or alteration to one or more key elements/features/patterns of the baseline (i.e. pre-development landscape) and/or introduction of elements that are not uncharacteristic with the surrounding landscape approximating to a 'no-change' situation.
None	No loss, alteration or addition to the receiving landscape resource.

19.2.5.3 Visual receptor sensitivity

Sensitivity of visual receptors (people) is arrived at by combining judgements concerning their susceptibility to the type of change or development proposed and the value attached to the particular views.

The susceptibility of different visual receptors (people) to changes in views and visual amenity is mainly a function of:

- *'the occupation or activity of people experiencing views at the particular locations; and,*
- *the extent to which their attention or interest may therefore be focused on the views and the visual amenity they experience at particular locations.' (GLVIA 3, para 6.32).*

Judgements made about the value of views takes account of the following factors:

- *'recognition of the value attached to particular views, for example in relation to heritage assets, or through planning designations; and*
- *indicators of value attached to views by visitors, for example through appearances in guidebooks or on tourist maps, provision of facilities for their enjoyment (such as parking places, sign boards or interpretive material) and references to them in literature or art' (GLVIA 3, para 6.37).*

The criteria for defining sensitivity of visual receptors (people) are provided in **Table 19-3**. Sensitivity results from combining judgements on the susceptibility of the visual receptor (person) (for example resident, commuter, tourist, walker, recreationist or worker), and the numbers of viewers affected with the value attached to views.

Table 19-3: Visual Receptor Sensitivity

Sensitivity	Susceptibility	Value
Very High	Visitors drawn to a particular view (usually promoted or in a designated landscape), including those who have travelled to experience the views. These viewers have very high susceptibility.	Views of internationally designated countryside/land or widely known/famous views.
High	Residents. People engaged in quiet outdoor recreation where landscape is an important part of the experience. These viewers have high susceptibility.	Views of nationally designated countryside/land.
Medium	Observers enjoying the countryside from vehicles on quiet/promoted routes. People engaged in outdoor sport or recreation which may involve appreciation of views (e.g. cyclists, golfers). These viewers have medium susceptibility.	Views of designated countryside/land.
Low	People engaged in outdoor sport or recreation which does not involve appreciation of views. These viewers have low susceptibility.	Views of undesignated countryside/land.
Negligible	People at work where the setting is not important to the quality of working life. Road users (commuters) where the view is incidental to the journey. These viewers have negligible susceptibility.	Views of undesignated countryside/land with significant presence of landscape detractors.

19.2.5.4 Magnitude of impact on visual receptors

The criteria for defining magnitude of impact on visual receptors are defined in **Table 19-4**.

Table 19-4: Magnitude of impact on visual receptors

Magnitude of Impact	Definition
Large	Complete or very substantial change in view. Change dominant involving complete or very substantial obstruction of existing view or complete change in character and composition of baseline, e.g. through removal of key elements.
Medium	Moderate change in view which may involve partial obstruction of existing view or partial change in character and composition of baseline (i.e. pre-development view) through the introduction of new elements or removal of existing elements. Change may be prominent but would not substantially alter scale and character of the surroundings and the wider setting. Composition of the view would alter. View character may be partially changed through the introduction of features which, though uncharacteristic, may not necessarily be visually discordant.
Small	Minor change in baseline (i.e. pre-development view). Change would be distinguishable from the surroundings whilst composition and character would be similar to the pre change circumstances.
Negligible	Very slight change in baseline (i.e. pre-development view). Change barely distinguishable from the surroundings. Composition and character of view substantially unaltered.

Magnitude of Impact	Definition
None	No alteration to the existing view.

19.2.5.5 Significance of the effect

The significance of the effect upon landscape and visual receptors is arrived at by combining judgements concerning sensitivity of the receptor and the magnitude of the impact. Although the particular method employed for this assessment is presented in **Table 19-5** and **Table 19-6**, where a range of significance of effect is presented, the final assessment for each effect is based upon expert judgement.

The purpose of the LVIA is to determine, in a transparent way, the likely significant landscape and visual effects of the Proposed Scheme

GLVIA3 identifies that *'There are no hard and fast rules about what effects should be deemed 'significant' but LVIAs should always distinguish clearly between what are considered to be the significant and non-significant effects.'* (GLVIA 3 Para 3.32)

Significance can only be defined in relation to each particular development and its specific location. The relationship between receptors and effects is not typically a linear one. It is for each LVIA to determine how judgements about receptors and effects should be combined to derive significance and to explain how this conclusion has been arrived at.

The identification of significant effects would not necessarily mean that the effect is unacceptable in planning terms. What is important is that the likely effects on the landscape and visibility are transparently assessed and understood.

The significance of effects on landscape, views and visual amenity have been judged according to a six-point scale: Profound, Major, Moderate, Minor, Negligible or None as presented in **Table 19-5**, which contains a description of the significance of effect criteria.

Table 19-5: Significance of Effect Criteria

Significance of Effect	Landscape Receptor	Visual Receptor
Profound	Where proposed changes would be uncharacteristic and/or would significantly alter a landscape of exceptional landscape quality (e.g. internationally designated landscapes), or key elements known to the wider public of nationally designated landscapes (where there is no or limited potential for substitution nationally).	Where proposed changes would be uncharacteristic and/or would significantly alter a view of remarkable scenic quality, within internationally designated landscapes or key features or elements of nationally designated landscapes that are well known to the wider public.
Major	Where proposed changes would be uncharacteristic and/or would significantly alter a valued aspect of (or a high quality) landscape.	Where proposed changes would be uncharacteristic and/or would significantly alter a valued view or a view of high scenic quality.
Moderate	Where proposed changes would be noticeably out of scale or at odds with the character of an area.	Where proposed changes to views would be noticeably out of scale or at odds with the existing view.
Minor	Where proposed changes would be at slight variance with the character of an area.	Where proposed changes to views, although discernible, would only be at slight variance with the existing view.
Negligible	Where proposed changes would have an indiscernible effect on the character of an area.	Where proposed changes would have a barely noticeable effect on views/visual amenity.
None	Where the Proposed Scheme would not alter the landscape character of the area.	Where the Proposed Scheme would retain existing views.

For the purposes of this assessment, those effects indicated as being Profound or Major are regarded as being significant in terms of the LVIA methodology. This is a typical approach for landscape and visual impact assessments adapted from GLVIA 3, which may differ from other environmental disciplines. Effects of Moderate and lesser significance have been identified within the assessment, though are not considered significant in terms of the LVIA methodology.

Table 19-6: Matrix Used for the Assessment of the Significance of the Effect

Sensitivity of receptor	Magnitude of impact				
	No change	Negligible	Small	Medium	Large
Negligible	None	Negligible	Negligible or Minor	Negligible or Minor	Minor
Low	None	Negligible or Minor	Negligible or Minor	Minor	Minor or Moderate
Medium	None	Negligible or Minor	Minor	Moderate	Moderate or Major
High	None	Minor	Minor or Moderate	Moderate or Major	Major or Profound
Very High	None	Minor	Moderate or Major	Major or Profound	Profound

19.2.6 Data Limitations

This chapter of the Environmental Impact Assessment Report (EIAR) has been prepared based upon the best available information and in accordance with current best practice and relevant guidelines. There were no technical difficulties or otherwise encountered in the preparation of this chapter of the EIAR other than in some areas, due to private landownership, local landscape character could not be fully evaluated.

19.2.7 Consultations

Meetings and follow up consultations were arranged with the Heritage Council during the course of the project. Comments and queries from this stakeholder informed design and are addressed throughout this report and summarised in **Table 19-7**.

Table 19-7: List of Consultations

Consultees	Feedback	Location where Comments were Addressed
The Heritage Council	**1.** *Heritage Council and partners' "Ballina Collaborative Town Centre Health Check (CTCHC) Report" (2020) and "Town Centre First Policy" (2022)*	
	2. *The Heritage Council recommends that this important CTCHC research informs the proposed FRS:* – *in relation to the public realm adjacent to the River Moy in the historic core.* – *any [hard] engineering proposals ensure the protection and enhancement of important historic vistas, which have existed for hundreds of years and combine to create the unique 'time depth' of this historic town.*	The Ballina CTCHC Summary Report and the TCF Policy were consulted
	3. *Consider Places for People: National Policy on Architecture, published by Department of Housing, May 2022:* – *The proposed FRS should embrace the recent 'cultural shift' towards quality design-led, people-focused urban areas. This can be demonstrated through envisaging all uses (private and public) and valuing urban morphology, i.e., understanding the town's unique historic form and fabric AND materiality. The project team needs to involve appropriate disciplines including urban design and conservation.*	A conservation architect conducted a survey and prepared a report. The report's recommendations

Consultees Feedback	Location where Comments were Addressed
have been implemented	
– *According to MCC, Ballina has one designated Architecture Conservation Area (ACA) Pearse Street, 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, e.g., Moy Lane. These important historic vistas and pedestrian routes, particularly where they include views across the Moy River to Cathedral Road and Ballina Cathedral beyond, should be considered.*	The extent to the ACA was established and no landscape or visual effects will arise from the Proposed Scheme to the ACA
4. *Need for a Design Palette and a Public Urban Design Panel:*	
– *Proposed materials for the flood relief scheme should be linked to an agreed quality design palette for the historic town centre. Such a design palette, along with a detailed scheme to deliver a vibrant public space in front of Ballina Cathedral, would involve significant input and direction from local and national heritage experts and from key stakeholders including civic and business leaders.*	Further to the conservation architect's report the material palette was approved by MCC's Executive Architect
– *The FRS, which involves significant public monies and is of huge public interest to Ballina's citizens and its diaspora, would benefit from the establishment of a Public Urban Design Panel.*	A public consultation event was held to seek public opinion
– *Given the lack of these key design components, the proposal requires more consultation and engagement and detail to ensure that any proposal brought forward is for a high-quality addition to the historic built environment, i.e., the receiving environment in Ballina.*	Further to this consultation the design was revisited to further enhance Ballina's historic centre

19.3 Description of the Existing Environment

19.3.1 Baseline Environment -Landscape Amenity

19.3.1.1 Ballina Local Area Plan 2024-2030

As part of the Regeneration Strategy five character areas have been identified in the BLAP, as show in **Figure 19-3,** *'based on their current use (i.e. brownfield/vacant/derelict/under-utilised); distinctive character; predominately land-uses in each area'.*

Figure 19-3: Ballina Town Character Areas (NTS, Source: Draft Ballina Local Area Plan 2024-2030)

These character areas are:

1. Town Core: The Town Core extends from Market Road, Humbert Street, Emmet Street, Tolan Street, taking in Pearse Street and Walsh Street.

2. Moy Quarter: This area extends along the River Moy taking in the Lower Bridge, Ridgepool, Upper Bridge, Emmet Street, Cathedral Road, Tom Ruane Park and Riverslade.

3. Western Quarter: This area forms the outer town core and adjoins the Town Core and Moy Quarter on the western side and encompasses James Road, Kevin Barry Street, Teeling Street, Pound Street, Circular Road, Bohernasup, Castlecourt, Barrett Street and Bachelor's Walk.

4. Cathedral Quarter: This area encompasses part of the town centre which is to the east of the Moy Quarter and includes Cathedral Road, the Upper Bridge, Plunket Road, Abbey Street, Cathedral Close, Bunree Road and ends at Howley Street.

5. Quay Quarter: This area encompasses part of Quay Road and ends at the junction with Creggs Road.

Opportunity sites for development within each of these five-character areas have been identified.

The most relevant to the Proposed Scheme are Opportunity Site 5: Public Realm works along Cathedral Road and Opportunity Site 6: Old Creamery Site

The potential for Opportunity Site 5 is seen to be to *'revitalise and rejuvenate this area of the town centre and opportunities for the creation of a civic space and improved public realm. Underpinning ambitions are the development of the highest quality public-realm space, connectedness and permeability, civic value and transformational place-making.*' Whereas Opportunity Site 6 offers the potential to develop this site '*to contribute to the revitalisation of underutilised lands within the town centre area for residential uses and permeability linkages.'*

19.3.1.2 Landscape Character, County Mayo

The 'Landscape Appraisal of County Mayo' referenced in Objective NEO 27 of the Mayo County Development Plan 2022-2028 (MCDP) identifies sixteen landscape character units.

Ballina Town is located in 'Area G: North Mayo Drumlins' and described as follows:

This area of drumlin topography contains mild low lying lakeland drumlins at the southern end merging into similar coastal topography in the north east surrounding Killala Bay. More severe, steeper drumlins occur around the foothills of the mountains to the north-west and the Ox Mountains to the east. The flood plain of the River Moy is also incorporated within this area.

The land cover is dominated by pasture with sporadic areas of moorland and patches of exposed rock in the rugged drumlins to the east. Hedgerows and small patches of scrub and woodland create a patchwork of farmer landscapes in this area.

It also describes the land uses of this area as *'the main agricultural activity in this area is livestock production. The region is dominated by extensive areas of pasturelands and some pockets of peat bog. This region includes the significant urban settlement of Ballina.'*

Although *'Critical Landscape Factors'* are listed for each landscape character unit those detailed for Areas G relate solely to the rural areas of the character unit.

19.3.1.3 Local Landscape Character of the Landscape and Visual Study Area

The local landscape character was determined for each of five areas of the Proposed Scheme, the same areas identified as the five landscape and visual sub study areas in **Section 19.2.2** and shown in **Figure 19-1** and is outlined below**.**

19.3.1.3.1 River Moy

The River Moy flows through the middle of Ballina with the town centre consisting mostly of traditional, two and three storey buildings, plastered and slated with the typical Irish finishes of shop fronts and plaster with windows of a vertical emphasis and pitched roofs of slate just to the western side of the river. Ballina retains a character very typical of the larger traditional Irish market town that has not been greatly altered by 20th century development. It also possesses many mid-19th century vernacular structures, mews buildings, mills and buildings of note which make a positive contribution to the townscape, the most prominent of which is St. Muredach's Cathedral located on the east bank of the River Moy.

The Moy River is a valuable amenity to the town economically, environmentally and as a tourism and community facility in that the banks of the River Moy are a strong and distinctive feature of the town. It forms a major part of the general character of the place. Due to this as well as the river corridor, the 'Moy Quarter', being recognised as a 'character area' adjacent to the *'Town Core'*, *'Western Quarter'* and *'Cathedral Quarter'* character areas in the BLAP means that the River Moy is considered to be of **high** sensitivity to the proposed change.

19.3.1.3.2 Quignamanger Stream

Creggs Road is primarily a residential road that finishes with agricultural and playing fields and is located towards the eastern part of the study area. Creggs Road is lined with semi-mature and mature predominantly ash trees on the southern side, that are suffering from ash die-back.

Only in the western part of the study area is the Quignamanger Stream not culverted. Here it runs in a channel to the Creggs Road/ Quay Road junction fenced off from the road and separated by a crumbling, ivy-covered wall and semimature trees from an adjacent waste-ground. West of Quay Road the stream is culverted until its discharge into the river Moy. The western part of this sub-study area borders the harbour or Quay Area, an area designated as the *'Quay Quarter'* character area in the BLAP. The area around the harbour is more urban with primarily hard surfaces and little vegetation. Belleek Woods is visible across the River Moy.

Due to the linear, narrow and mainly enclosed nature of this sub-study area that changes in character along its length the sensitivity is considered to be **medium** to the proposed change.

19.3.1.3.3 Bunree / Behy Road Stream

This sub-study area predominantly follows the Behy Road Corridor. Apart from a very short section in the west of this sub-study area the Bunree Stream is underground.

On the western part of this sub-study area the character is medium density residential development with extensive green areas. Grassed areas and semi-mature trees associated with the adjacent Moyvale Park and Knocknalyre housing estates.

As you travel eastwards through industrial areas characterised by functional buildings and storage yards, single housing and some waste ground you reach agricultural areas and ribbon development. Here there is a mixture of scrub, hedgerows and semi-mature tree lines and groups of trees.

This area is considered to be of **low** sensitivity to the proposed change.

19.3.1.3.4 Brusna (Glenree) River

The River Brusna sub-study area includes part of the R294 Regional Road to the south with ribbon development that faces the river along it followed by the Ballina Golf Course boundary on the south of the road. Here the character is of a more ornamental, tended landscape as well as hard landscape elements such as walls and hard surfaces. The southern river bank along the R294 has a natural rural character with intermittent, dense vegetation of semi-mature and mature trees and shrubs but affords occasional glimpses of the river between these clusters.

Towards the western end of this sub-study area there is an attractive tree-lined riverside meadow bounded by a low wall and concrete post and chain-link fence adjacent to the entrance to Rathkip/Shanaghy area.

Rathkip/Shanaghy with low- density residential properties and some agricultural pasture is to the north of the river. The northern riverbank is less wide with tended grass and a concrete post and wire mesh fence adjacent to the access road to the residential properties. Only a narrow strip immediately along the river has a semi-natural appearance with semi-mature and mature trees that are less dense than on the southern side. Furthermore, there are some detractors in the form of utility infrastructure. Downstream of the bridge the sub-study area only follow the north-eastern bank of the river which runs along private property and is not accessible to the public.

This undesignated area bordering on rural agricultural area is considered to be of **medium** sensitivity to the proposed change.

19.3.1.3.5 Tullyegan Stream

The study area around the Tullyegan Stream is located on the outskirts of Ballina Town between a number of large, detached properties to the west of the N26 National Road and housing estates to the east. The stream is nearly entirely concealed from public view save for from the bridge parapets on the N26. The area is suburban with semi-mature street trees, grassed areas and ornamental planting. The stream corridor is distinguished by a line of predominately native mature and semi-mature trees.

This area is considered to be of **low** sensitivity to the proposed change.

19.3.1.4 Designations

One area of Ballina Town has so far merited nomination for designation as an Architectural Conservation Area (ACA) in the BLAP, Pearse Street ACA.

The BLAP outlines *'Ballina's ACA is located along Pearse Street and Walsh Street and comprises most of the main thoroughfare in the centre of the town of Ballina. It lies in a north-easterly/south-westerly orientation, the street itself stretching approximately two hundred and eighty metres. Pearse Street presents a variety of architectural styles with Victorian and Georgian facades and a wide range of material finishes. The Pearse Street ACA includes all streets leading off it, Walsh Street, Tone Street, Tonal Street, O'Rahilly Street, Casement Street and James Connolly Street. These streets with Pearse Street and the Military*

Barracks form the historic centre of Ballina's 19th Century market town. The building form, fabric and character of the area should be protected from non-contextual interventions.' The extent of the Pearse Street ACA is shown in **Figure 19-4**.

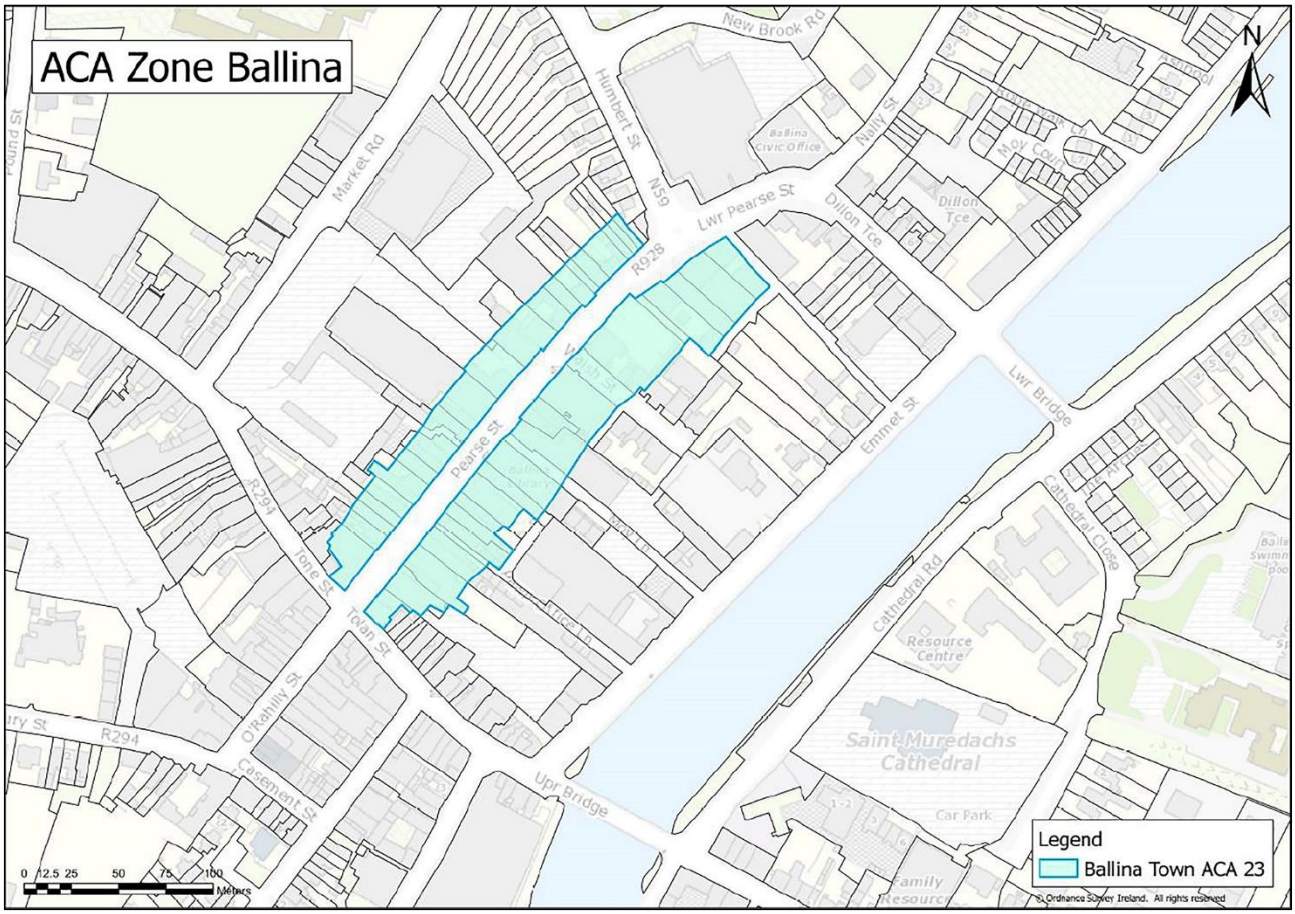

Figure 19-4: Pearse Street Architectural Conservation Area (NTS, Source: Map 8.1, Draft Ballina Local Area Plan 2024-2030)

Proposals for defining a second ACA in Ballina at Crocketstown/The Quay are being considered by Mayo County Council due to its historic and built heritage significance and an objective regarding the development of this ACA is included in the DBLAP.

19.3.2 Baseline Environment -Visual Amenity

19.3.2.1 Views, prospects and scenic routes within the Study Area

19.3.2.1.1 Ballina Local Area Plan 2024-2030

While there are no visual amenity designations as such in the BLAP in Section 9.4 Landscape mentions 'several locations within the town where views of Nephin Mountain and the River Moy can be enjoyed. Certain views have been identified as worthy of preservation and include views of the river and of Belleek Woods from Crocketstown' however no specific locations are mentioned.

19.3.2.1.2 Mayo County Development Plan 2022-2028

Scenic Routes and protected views designated for Mayo County are shown in most detail in the 'Landscape Appraisal of County Mayo'. There is one scenic route designated in the MCDP that follows roads along the eastern riverbank from town centre northwards to the county boundary and is illustrated by an excerpt from

the Scenic Routes and Protected Views map contained 'Landscape Appraisal of County Mayo' in **Figure 19-5**.

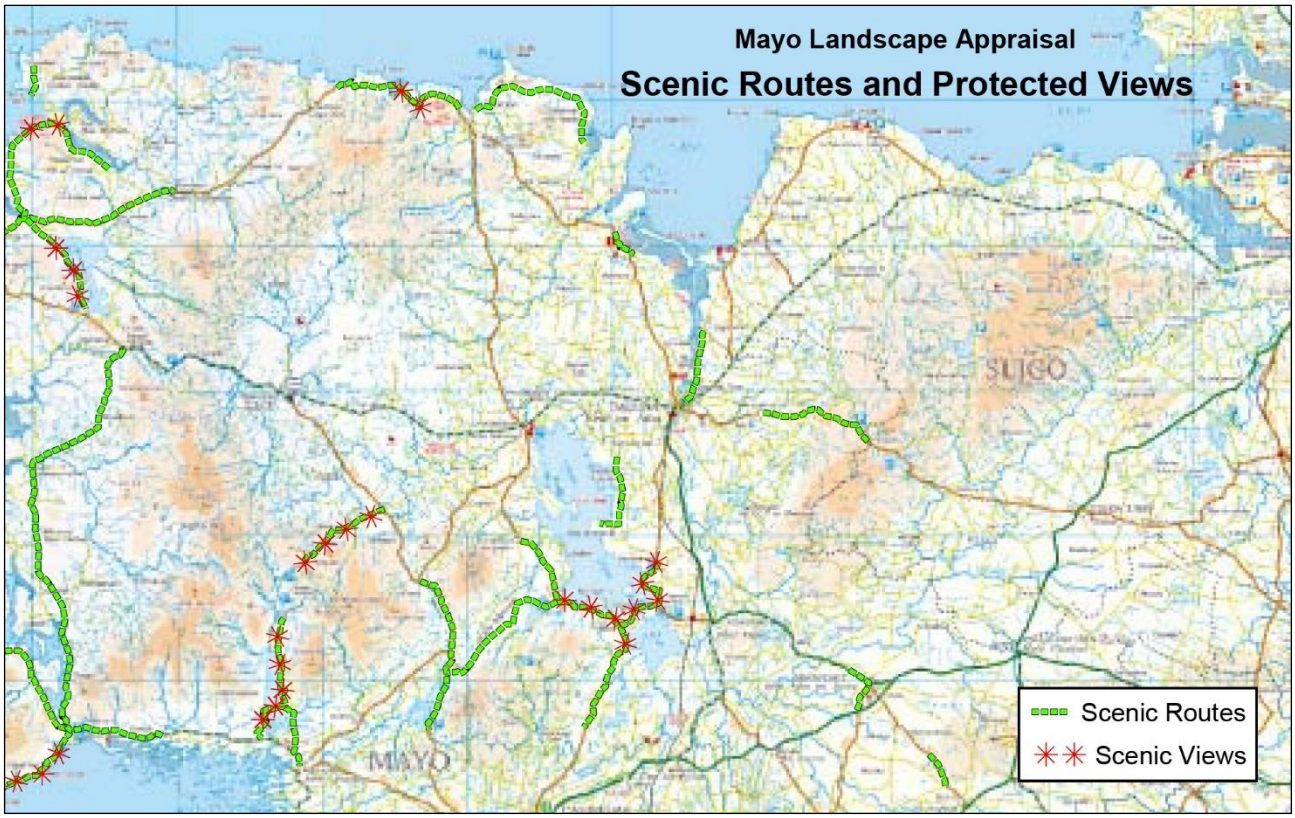

Figure 19-5: Scenic Routes and Protected Views (NTS, Source: Landscape Appraisal of County Mayo)

19.3.2.2 Visual Receptors at selected viewpoint locations

The visual receptors with existing views of the application site and / or potential views of the Proposed Scheme comprise residents of dwellings, visitors to the town and road users. The baseline visual amenity representing these viewers is captured in **Table 19-8**. The table lists the viewer types at each viewpoint and describes the existing views and a statement of value is provided in line with the methodology above. The location of each of the viewpoints is indicated on **Figure 19-6** and illustrated in **Appendix 19-4: Photomontages**.

Table 19-8: Viewpoints and Existing Visual Amenity

VP	Location	Visual Receptor and Sensitivity	Description of existing view	Assessment of Value
1	Waterstone (east of the N26)	Residents of dwellings and road users (commuters) **Medium**	Short-distance view across the N62 National Road with associated footpaths and road infrastructure to the Tullyegan Stream crossing distinguished by dense mature trees. To the right are large residential houses and to the left grassed areas can be seen around a road junction. There are middle distance views to mature and semi-mature trees in the background. The character of the view is mainly suburban with elements of rural/agricultural.	**Medium** - Views of limited value of suburban area with detracting elements (national road).
2	Picnic area north-east of the R294	Residents of nearby dwellings and road users (commuters) **Medium**	View looking along the R294 Regional Road. To the right the western riverbank of the Brusna River is seen with meadowland interspersed with trees of various sizes, including small ornamental cherry trees and a row of concrete bollards in the	**Medium** - Views of limited value of road verges with detracting elements (regional road).

VP	Location	Visual Receptor and Sensitivity	Description of existing view	Assessment of Value
			foreground. The image is taken adjacent to a picnic area with some of the stainless-steel bollards and information sign seen to the right. One-storey low-density houses with extensive residential gardens can be seen on the far side of the road. There are middle distance views to mature and semi-mature trees in the background. The view is mainly rural/rural settlement in character.	
3	Bridge across River Brusna on Shanaghy Heights	Residents of nearby dwellings **High**	View looking towards the River Brusna across a riverside meadow. The river is sparsely vegetated by semi-mature trees with occasional glimpses of the river. The residential houses to the north-east of the River Brusna are mainly concealed by the riverside trees. To the right a small access road can be seen lined by concrete bollards linked with metal chains. This road leads up to the R294 Regional Road, which is mainly concealed by a low wall. The background to the view is formed by medium shrubs and semi-mature trees in the near to medium distance. There are glimpses of higher ground in the distance. The view is predominantly rural in character	**High** - Views of value of river bank landscape.
4	Lower Bridge side of Salmon Wier Bridge	Residents of dwellings, pedestrians and road users **High**	View looking northwards down the River Moy and Ridgepool Rd to the right. In the river, the Salmon Weir can be seen in front of the Upper Bridge. To the right, parts of the wall that form the riverbank can be seen. Ridgepool Road has a tree-lined footpath and parallel parking to the left, while to the right there are three-storey residential buildings in the foreground seen in the medium distance. To the left of the river trees screen part of the art centre which is bordered by a derelict building followed by the five storey buildings of the Ballina Manor Hotel. Beyond the bridge the town centre buildings overlooking the river can be seen. The distant background to the view is formed by mature trees. The view is riparian/urban in character.	**High** - Views of value attributed to dynamic river landscape including interesting infrastructure, and town centre buildings.
5	N 59 on Ham Bridge	Pedestrians and road users (commuters) **Medium**	View from Upper Bridge to Ridgepool Road and the River Moy. Commercial buildings can be seen in the foreground beyond the riverbank wall to the right followed by three-storey residential buildings and street parking that are mainly screened by a line of trees. The River Moy can be seen in the centre of the view, culminating with salmon weir followed by the modern structure of the pedestrian bridge. Distant views the tree tops of mature trees can be seen in the centre of the view. Parts of Ballina Manor Hotel with a walkway facing the river, followed by a derelict building can be seen to the right of the view. The view is riparian/urban in character.	**Medium** - Views of some value across river landscape with some detracting built elements (derelict buildings without facades).
6	Cathedral Road (N59)	Pedestrians, church congregation and road users (commuters) **High**	View along Cathedral Road with associated road infrastructure including footpaths, road signs, lamp posts and telegraph lines, walls and railings. The cathedral is a dominant feature to the left of the view, separated by boundary walls and railings from the road along with other buildings and some trees. To the right of	**High** - Views of value attributed to river landscape, town centre buildings and Nephin Mountain.

VP	Location	Visual Receptor and Sensitivity	Description of existing view	Assessment of Value
			Cathedral Road is the riverside area of wide intermittent paved areas bounded by railings with an avenue of semi-mature lime trees. There are partial views through the trees and railings of the River Moy and Upper Bridge in the middle distance. The buildings of the town centre form the background. The view is urban in character.	
7	N 59 on Lower Bridge	Pedestrians and road users (commuters) **Medium**	View from Lower Bridge to Bachelors Walk and the River Moy. To the right, residential terraced houses on Bachelors Walk can be seen preceded by a commercial building. These buildings are partially screened by an avenue of semimature trees lining the footpath along the river. The River Moy, seen beyond the bridge parapet, forms most of the centre of the view, finishing in the middle distance in riverside vegetation. Clare Street can be seen to the right of the river with a significant amount of riverside vegetation and street trees softening the urban landscape. Mature trees seen in the middle distance; surrounding St. Muredach's College make up the background of the view on the horizon. The view is riparian/urban/suburban in character.	**Medium** - Views of some value across river landscape with some detracting built elements (commercial buildings).
8a	Clare Street (N59)	Pedestrians and road users (commuters) **Medium**	View along the River Moy with green river bank either side to the Lower bridge and town centre buildings in the background. The terraced houses of Bachelors Walk can be seen behind trees to the right of the river in the background. The tree-lined footpath of Clare Street is separated from the river to the left by a low wall. Residential houses and the Cathedral can be seen in the middle distance partially screened by trees. The distant view to Nephin Mountain (barely visible in photomontage due to weather conditions on the day baseline images were taken) forms the background to the view. The view is riparian/urban/suburban in character.	**High** - Views of value attributed to river landscape, town centre buildings and Nephin Mountain.
8b	Clare Street (N59)	Pedestrians and road users (commuters) **Medium**	View across the River Moy with grassed riverside banks on either side to the terraced houses of Bachelors Walk with its avenue of trees. To the right, the boatyard and the industrial buildings of the dairy beyond are only just visible through the dense riverside vegetation. The view is riparian /suburban in character.	**Medium** - Views of some value across river landscape with some detracting built elements (dairy buildings).
9	Junction of Quay Rd and Creggs Rd	Residents of dwellings and road users (commuters) **High**	This view looks southwards along Quay Road with associated road infrastructure of road signs, lighting columns, benches on the footpaths. The urban quay/harbour area characterised by buildings walls and hard surfaces can be seen to the right of the road. To the left of the road, there is an empty plot, behind which residential houses and gardens can be seen. The tree tops of Belleek Wood can be seen in the background. This section of road is designated as a scenic view/protected view designated in the MCDP. The view is predominantly urban in character.	**High** -. Views from designated scenic route.

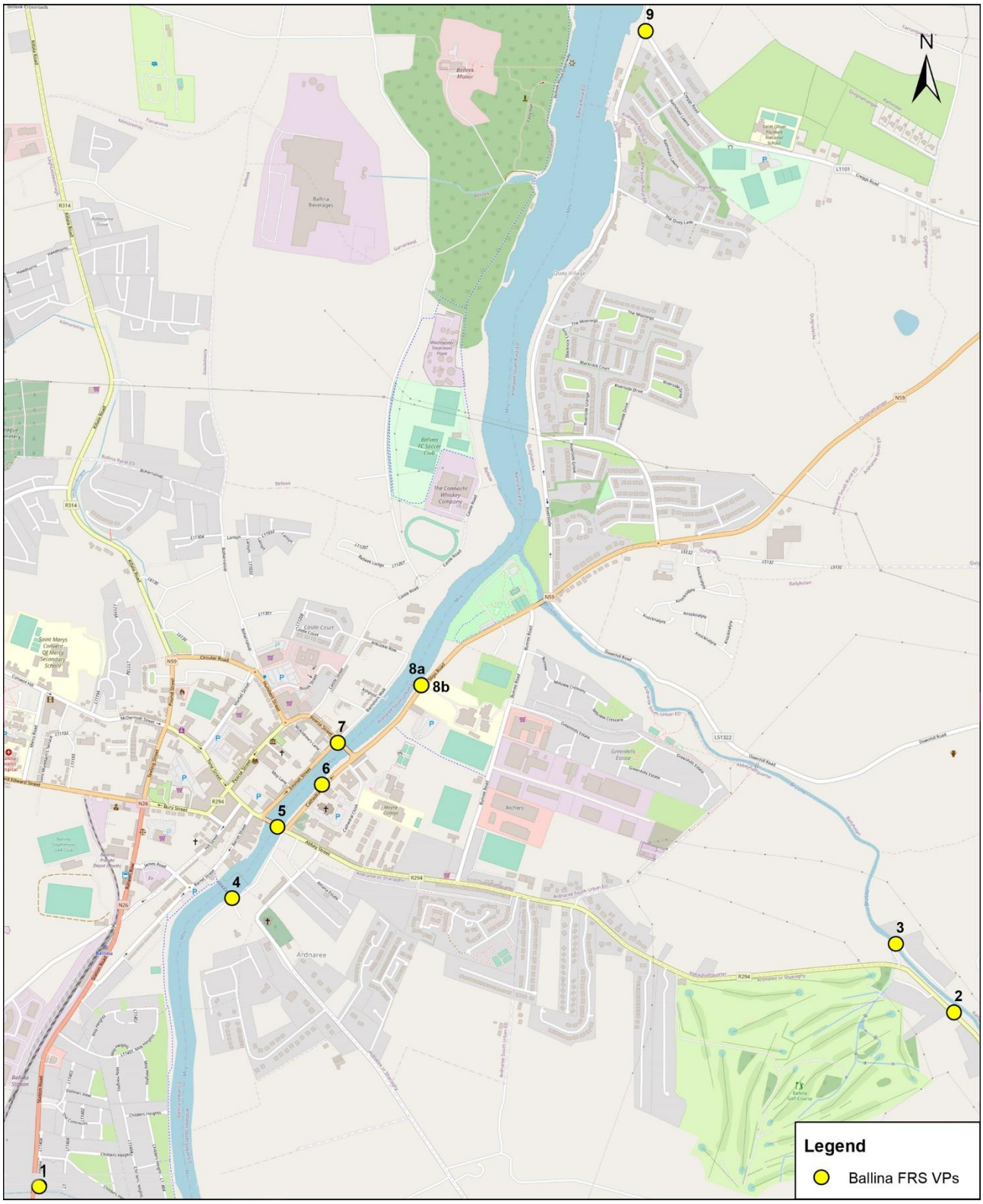

Figure 19-6: Viewpoint Locations

19.3.3 Evolution of the Environment in the Absence of the Proposed Scheme

The do-nothing scenario would result in no direct impacts on the receiving landscape. There would be no wooded vegetation or tree losses and there would be no new flood relief structures introduced into the landscape of the study area. Effects on the character of the landscape, resulting from the visibility of the

proposed change, would not arise. Direct impacts on the views and visual amenity of individuals would not arise due to the introduction of the proposed structures and wooded vegetation losses.

The landscape of the study area will continue to evolve without the Ballina Flood Relief Scheme. The forces driving landscape change are both human and natural within the study area. Building and infrastructure development along with, intensification of agriculture is changing the character of both urban and rural landscapes. Climate change driven by human activity and flood events have the potential to alter vegetation patterns and landscape character in the longer term, although to what extent and over what timeframe is a matter of conjecture.

19.4 Mitigation Measures

19.4.1 Construction Phase

A range of measures to be implemented during construction are outlined below:

- Temporary storage heaps associated with topsoil are not to exceed 1m height.
- The storage compound areas will be reinstated to former use upon completion of the works.
- Vehicles exiting compound areas will be subject to wheel wash facilities or road sweepers shall be used in order to maintain clean roads.
- Any lighting used will be kept to a minimum, providing for site safety only and shall be directed into the compound and away from adjacent residential properties. Lighting at the site compound shall be shielded to avoid light spill onto adjacent properties and roads.
- Prior to commencement of construction, existing trees which are to be retained will be protected with fencing to ensure no works or storage of materials occurs within the root protection zones identified in the tree survey carried out by a qualified arborist. The tree protection works will be in accordance with BS 5837:2012 Trees in relation to construction.
- The tree survey found that there are a significant proportion of ash trees that are suffering from ash-dieback. Although many currently appear in good health they will decline and die in the coming years resulting in adverse visual effects and requiring their eventual removal. Hence, these trees will be removed as part of the scheme. **Figure 19-7** to **Figure 19-15** show where these ash trees are located.

19.4.2 Operational Phase

A range of measures, incorporated as part of the Proposed Scheme, will mitigate long term landscape and visual effects and are outlined below as follows:

19.4.2.1 Design

19.4.2.1.1 River Moy

The proposals at Ridgepool Road were designed to increase the pavement width while allowing the maximum number of trees to be planted in buildouts between parking spaces having regard for access for all compliance.

The design on Cathedral Road was developed to retain the healthy semi-mature lime trees on Cathedral Road. The raised plaza with its attractive paving design and new street furniture will provide a new amenity area from which to enjoy the river.

Special triangular buildouts have been designed into the proposed flood defence wall to accommodate new street trees to replace the trees on Clare Street, removed during construction, located too close to the existing wall to allow for their retention. The design of these buildouts was also for the purpose of increasing continuous pavement width in accordance with access for all.

On Bachelors Walk the orientation of the wall foundations were changed to facilitate the retention of existing street trees.

As part of the footpath re-construction on Bachelors Walk, Cathedral Road and Emmet Street an underground rooting cell system will be installed to allow for additional rooting medium to improve the health of the existing trees.

19.4.2.1.2 Tullyegan Stream

The most south-eastern part of the proposed flood defence wall is to be set back from the river bank in order to prevent the removal of a line of mature whitebeam trees along the river bank.

19.4.2.2 Proposed Planting

Replacement planting to mitigate against tree and vegetation loss and where appropriate to provide screening is described for each area below and can be seen in the drawings in **Appendix 19.1**.

19.4.2.2.1 River Moy

The existing ash trees suffering from ash dieback on Ridgepool Road are to be replaced with healthy semi-mature street trees in buildouts between parking spaces.

The existing lime trees on Cathedral Road will be supplemented with trees of the same species and size to complete a continuous avenue of trees along the length of the street.

New street trees to the replace the trees lost on Clare Street located will be planted in special triangular wall buildouts.

Woodland planting suitable for river banks is proposed on the north western part of the River Moy to screen the boatyard and dairy buildings. There is also planting proposed for the riverside park on the north-eastern bank of the River Moy. Here the planting is to be located at a minimum of 3 m behind the existing features of the park. The planting is also intended to compensate for the loss of riverside vegetation in other areas.

19.4.2.2.2 Quignamanger Stream

Planting to compensate for the loss of riverside vegetation in other areas at the junction of Creggs Road and Quay Road.

19.4.2.2.3 Bunree / Behy Road Stream

Significant proportion of the shrubs and trees are to be planted on either side of new open channel in the green area in the Moyvale Park housing estate to the western end of this sub-study area. They are to have thorns to deter access to water.

19.4.2.2.4 Brusna (Glenree) River

Planting to compensate for the loss of riverside vegetation in other areas and to enhance the riverbank vegetation cover in this area.

19.4.2.2.5 Tullyegan Stream

As there was no space adjacent to the areas where flood defences are to be built, native woodland planting is to be planted adjacent to a downstream stretch of the Tullyegan Stream in the Rehins Fort housing estate to compensate for vegetation loss due to the Proposed Scheme,

19.4.2.3 Proposed Structures

The Proposed Scheme will be designed to have regard for the existing built vernacular of the area. To this end the services of a conservation architect were employed to compile a report and make recommendations on which materials and style would be appropriate in the context of the existing environment. Reuse of materials, particularly reclaimed stone in the existing walls, where appropriate, is proposed to help blend the new structures into the surrounding landscape and increase the sustainability of the Proposed Scheme.

Furthermore, any additional new stone required for the stone facing will be sourced as locally as possible to match or complement the stone to be found on the existing bridges, other surrounding structures and the stone to be reused.

19.5 Description of the Likely Significant Effects

The assessment of effects on landscape and visual amenity are presented below for the construction and operational phases of the proposed flood relief scheme. Operational effects have been considered during year 1 and year 15 and has assumed the inclusion of a range of landscape and visual mitigation measures as being an integral part of the proposed flood alleviation scheme.

19.5.1 Construction Phase

Direct impacts will arise during the construction phase as a result of a range of construction activities associated with the Ballina Flood Relief Scheme. Short-term effects on the surrounding landscape and visual amenity will arise from construction activities and the presence of construction plant, machinery and vehicles associated with the proposed works as follows:

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:

- Possible 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.

These activities are expected to be short-term lasting for varying lengths of time and phased over the 36-month length of the proposed works.

19.5.1.1 Effects on Landscape and Landscape Character

Temporary short-term changes to local landscape character areas described previously will arise as a result of the visibility of construction activities, plant and machinery, site compound, construction vehicles and

traffic management measures. These construction effects are outlined separately below for each of the five LV sub- study areas of the scheme.

19.5.1.1.1 River Moy

The type and extent of the works are shown below in **Figure 19-7**, **Figure 19-12** and **Figure 19-9**.

Adverse effects on the landscape surrounding of 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. These will include site offices, welfare facilities, bunded fuel storage areas, designated storage area and construction parking. There will also be construction activities associated with clearance of existing trees, erosion protection measures and demolition of existing walls. Adverse effects on this landscape will arise as a result of the excavation and construction of flood defence walls along the River Moy.

The traffic management measures will generally result in adverse effects due to increased presence of queues of vehicles together with construction vehicles on all roads within the sub-study area and possibly in other areas of the town.

Taking into account the adverse effects associated with the construction activities along with 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.

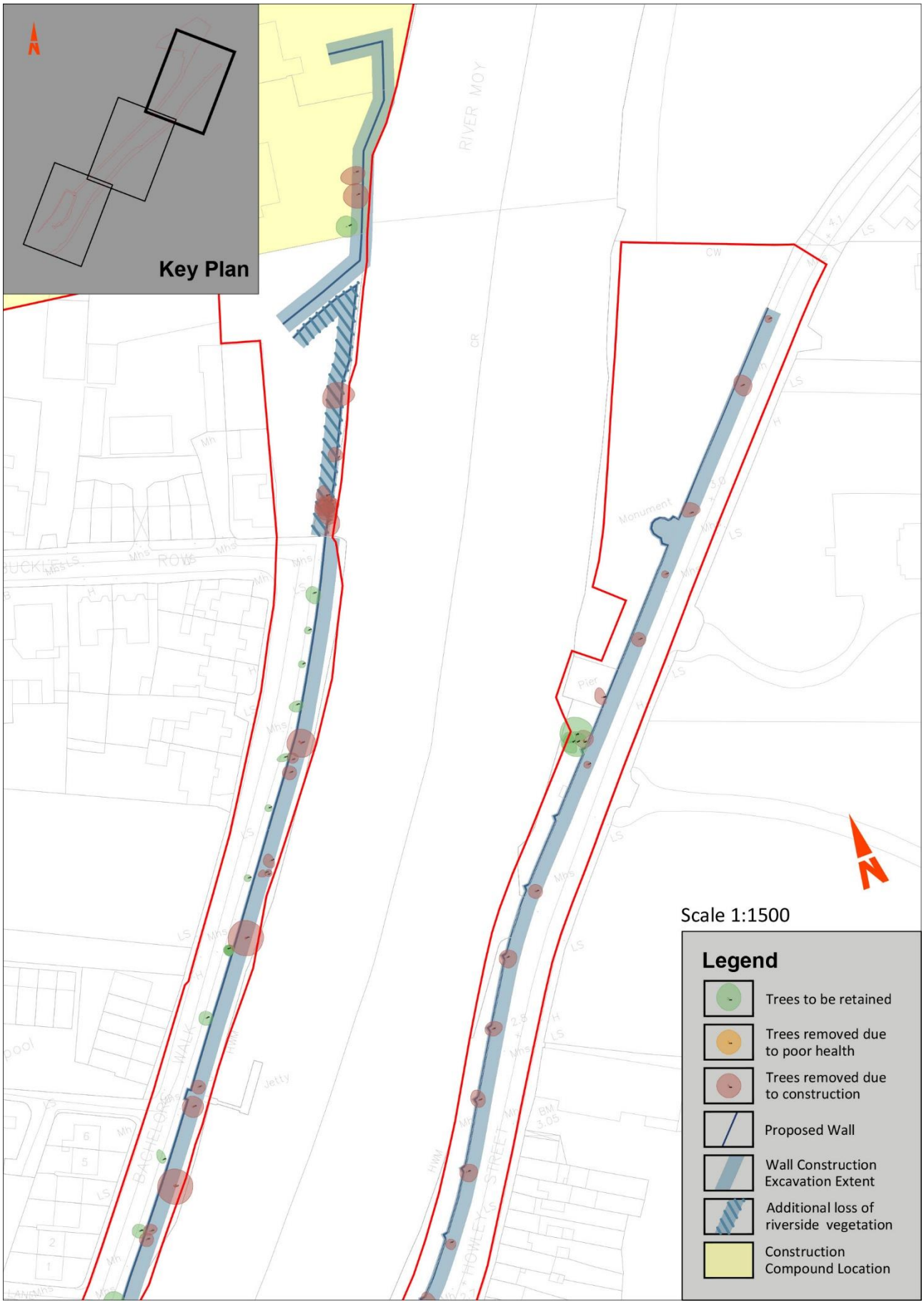

Figure 19-7: Proposed Construction and Impacts on Existing Trees Along the River Moy (Northern Section)

Figure 19-8: Proposed Construction and Impacts on Existing Trees Along the River Moy (Central Section)

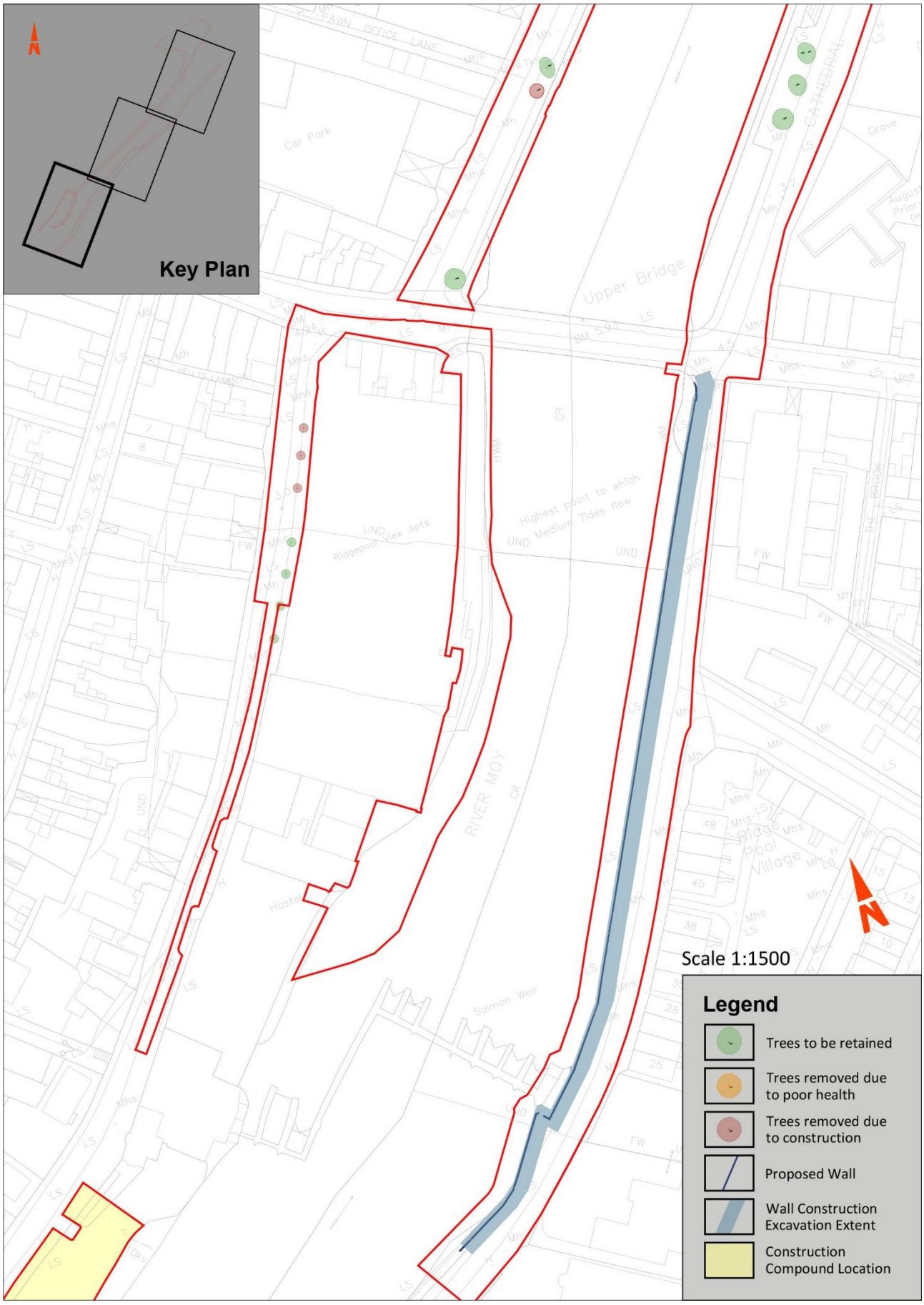

Figure 19-9: Proposed Construction and Impacts on Existing Trees Along the River Moy (Southern Section)

19.5.1.1.2 Quignamanger Stream

The type and extent of the works is shown below in **Figure 19-10**.

Minor adverse effects on the landscape of Creggs Road will arise as a result of the excavation works for the culvert as well as the clearance of some ash trees suffering from ash dieback. Construction effects will arise in the western part of the sub-study area near the junction of Creggs Road and Quay Road as a result of the construction of flood defence walls and excavation of the open channel between Quay Road and the River Moy.

The traffic management measures will generally result in adverse effects due to a possible increased presence of queues of vehicles on Creggs Road and Quay Road together with construction vehicles.

Taking into account the adverse effects associated with the construction activities along with 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 **medium** sensitivity resulting in a **minor and not significant adverse** effect.

Figure 19-10: Proposed Construction and Impacts on Existing Trees Along the Quignamanger Stream

19.5.1.1.3 Bunree / Behy Road Stream

The type and extent of the works are shown below in **Figure 19-11**, **Figure 19-12** and **Figure 19-13**.

A temporary work compound will be located on waste ground colonised with scrub vegetation including some invasive species to the south of Behy Road. Minor adverse effects on the landscape of Behy Road will arise as a result of the presence of the temporary compound and the excavation works for the culvert as well as the clearance of some semi-mature existing beech trees. In the green area of Moyvale Park vegetation removal, excavation and erosion protection measures will also give rise to adverse landscape effects. These effects will be limited to the north western corner of the park and will be short term (12 months).

The traffic management measures will generally result in adverse effects due to a possible increased presence of queues of vehicles on the N59 National Road and Behy Road together with construction vehicles.

Taking into account the adverse effects associated with the construction activities along with 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 **low** sensitivity resulting in a **negligible to minor and not significant adverse** effect.

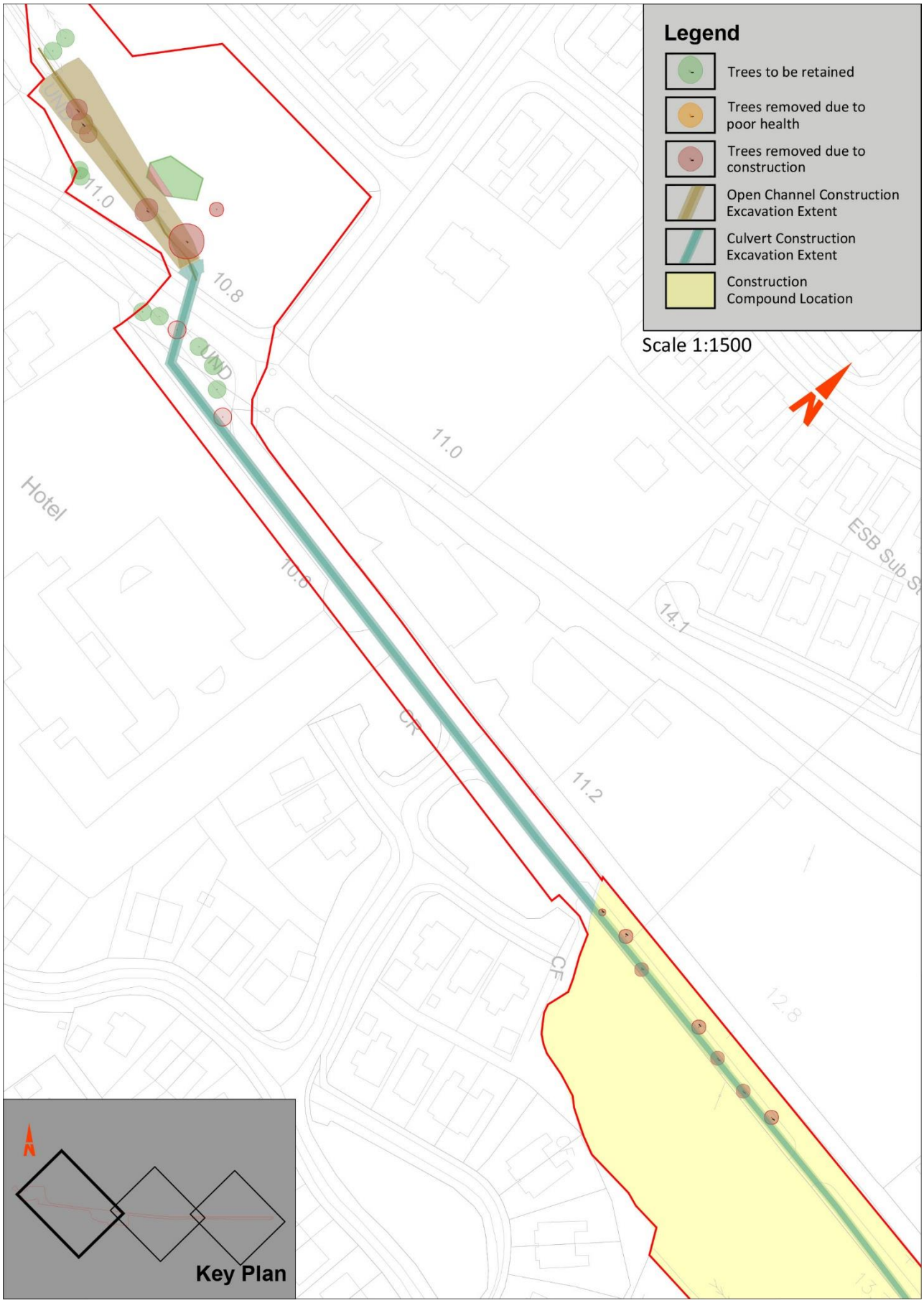

Figure 19-11: Proposed Construction and Impacts on Existing Trees Along the Bunree Stream (Western Section)

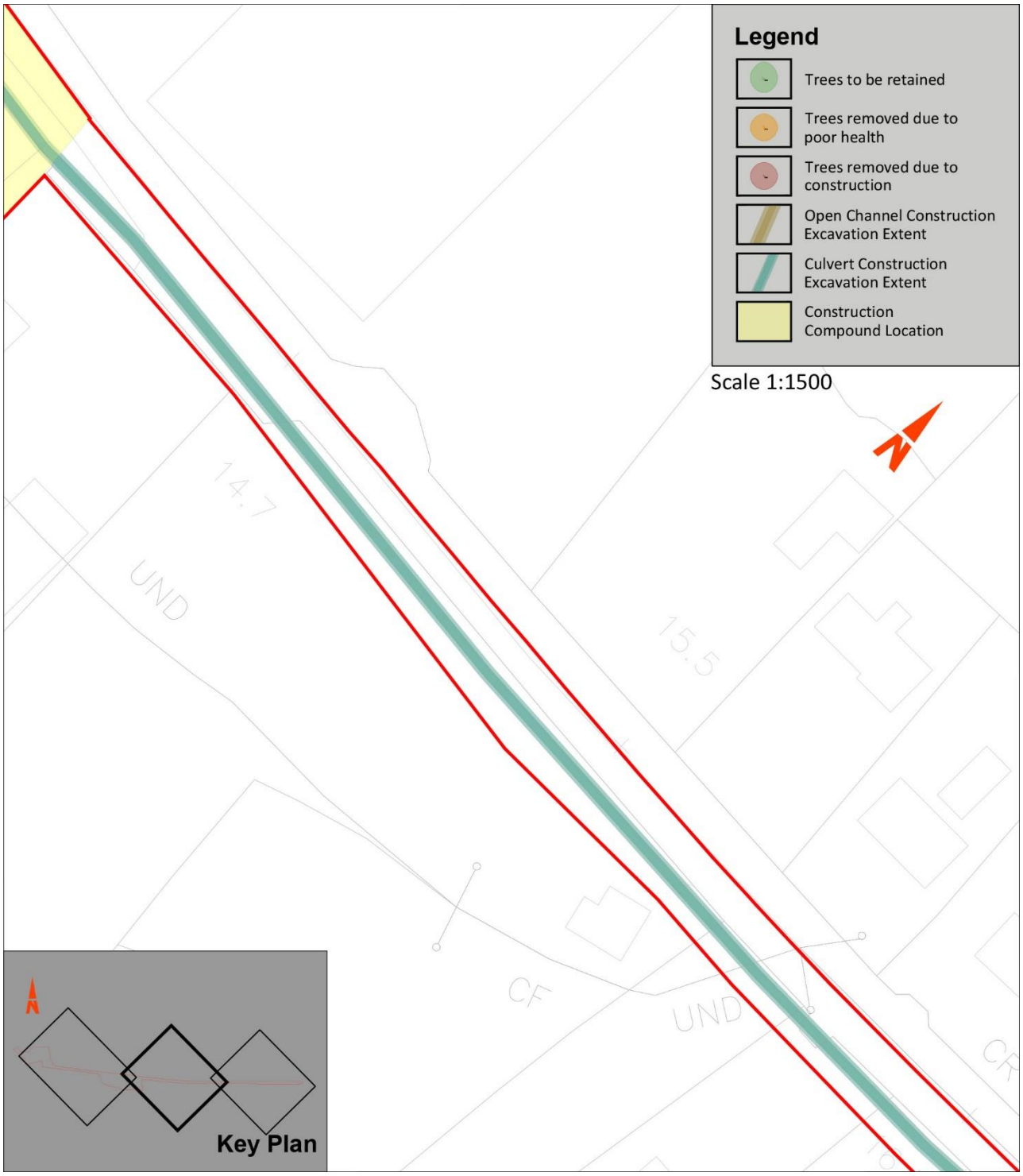

Figure 19-12: Proposed Construction and Impacts on Existing Trees Along the Bunree Stream (Central Section)

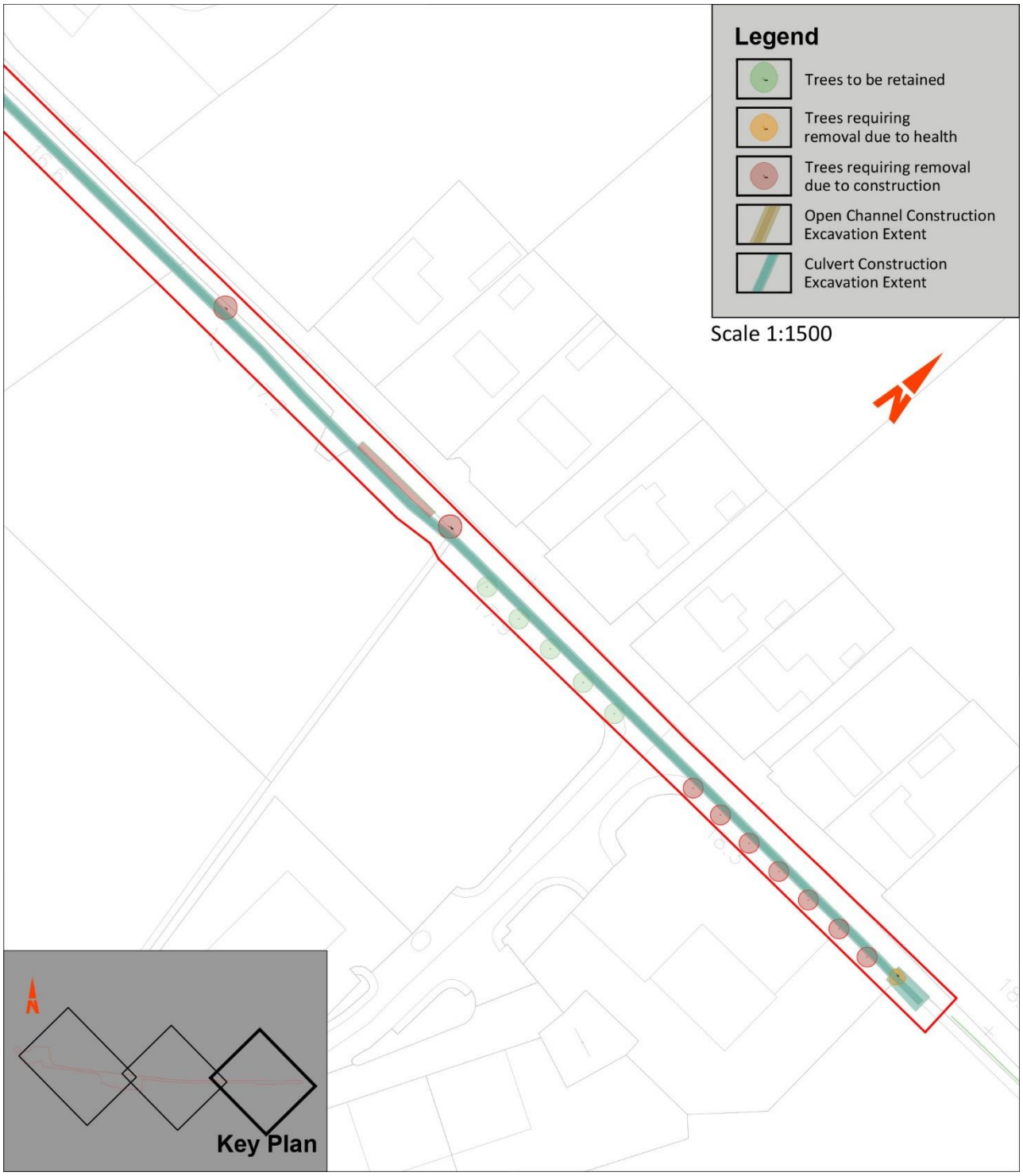

Figure 19-13: Proposed Construction and Impacts on Existing Trees along the Bunree Stream (Eastern Section)

19.5.1.1.4 Brusna (Glenree) River

The type and extent of the works is shown below in **Figure 19-14**.

The construction effects will be particularly intense either side of the River Brusna upstream of the bridge as a result of the removal of some mature woody vegetation, construction of flood defence walls and works on the bridge, including instream works. Downstream of the bridge the construction works will be located between the river and property boundaries, however the removal of riverside vegetation will be apparent in the immediate surrounding area.

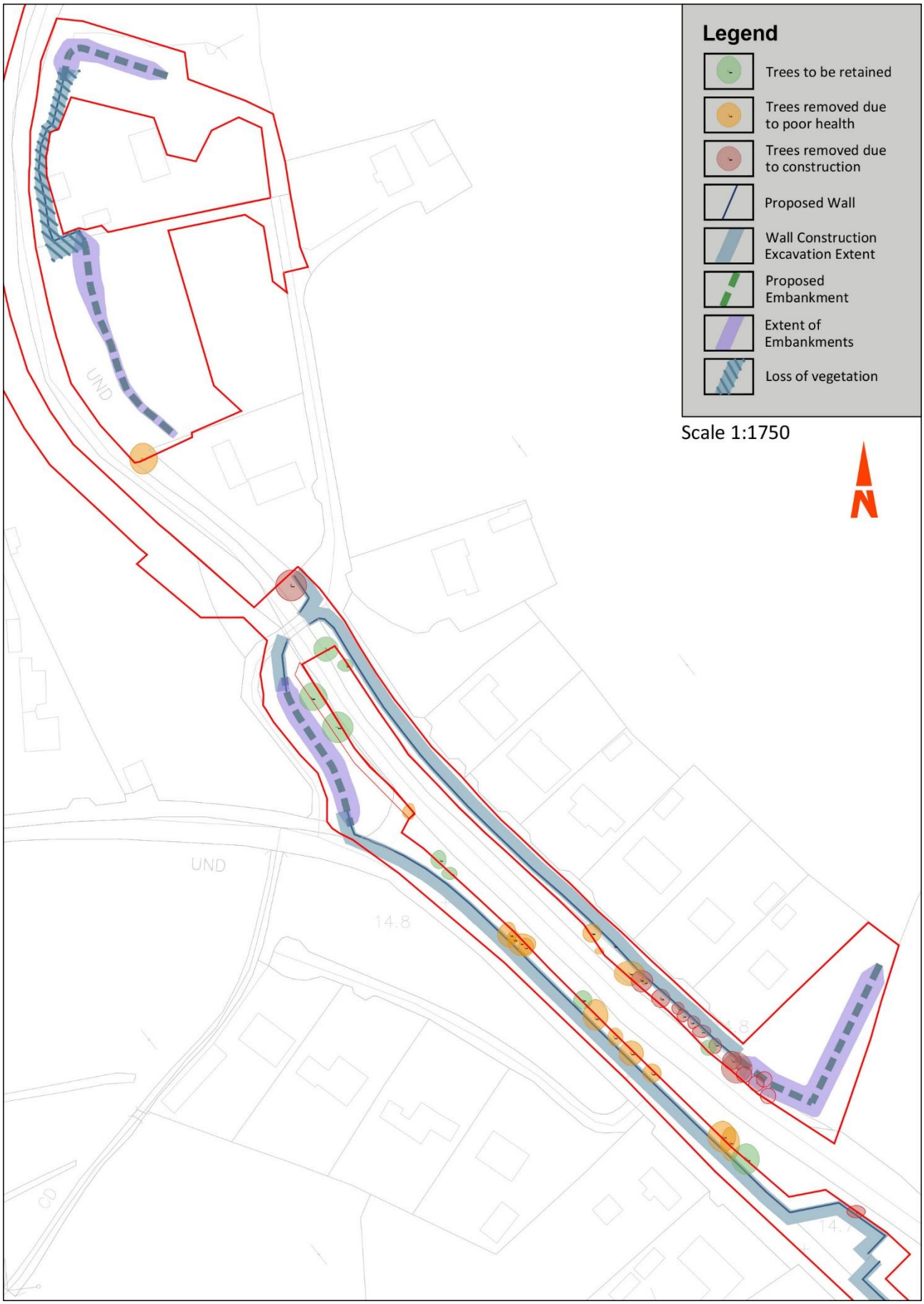

Figure 19-14: Proposed Construction and Impacts on Existing Trees Along the Brusna River

The traffic management measures will generally result in adverse effects due to a possible increased presence of queues of vehicles on the R294 Regional Road and Shanaghy Heights together with construction vehicles.

Taking into account the adverse effects associated with the construction activities along with 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 **medium** sensitivity resulting in a **negligible to minor and not significant adverse** effect.

19.5.1.1.5 Tullyegan Stream

The type and extent of the works is shown below in **Figure 19-14**.

Figure 19-15: Proposed Construction and Impacts on Existing Trees Along the Tullyegan Stream

The construction landscape effects associated with the construction of flood defence walls and embankments as well as the removal of a small number of trees will be confined to areas not accessible to the public on the property boundaries of residential dwellings.

The traffic management measures will generally result in adverse effects due to a possible increased presence of queues of vehicles on the N26 National Road and L1122 Local Road together with construction vehicles.

Taking into account the adverse effects associated with the construction activities along with the short-term duration of the works overall (up to 36 months), a **negligible** magnitude of impact is considered to arise to this landscape of **low** sensitivity resulting in a **negligible to minor and not significant adverse** effect.

19.5.1.2 Effects on Visual Amenity

Visual impacts during construction were outlined below for each viewpoint. In each location, a description of the change in view is presented. Impacts take account of the short-term duration of construction effects which are expected to last up to 36 months for the entire Ballina FRS.

19.5.1.2.1 Viewpoint 1

Residents of dwellings and road users will not see any construction activity apart from the removal of some mature trees partially screened by existing vegetation and built elements. Construction machinery, vehicles and traffic management measures necessary for the works at this location may also be visible.

Taking into account the short-term duration of the works (up to 36 months), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible to minor** and **not significant adverse** effect.

19.5.1.2.2 Viewpoint 2

The clearance of mature trees will be clearly visible to some residents of dwellings and road users. This will be followed by construction activities associated with the proposed flood defence wall adjacent to the road. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Considering the short-term duration of the works (up to 36 months), a **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** effect.

19.5.1.2.3 Viewpoint 3

Construction activities associated with the proposed flood defence wall on the eastern bank and the walls and embankment adjacent to the access road on the western side will be visible to residents of nearby dwellings. In the distance, the clearance of woody vegetation on the right bank downstream may be partly visible. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. This will be followed by the implementation of the proposed landscape measures in the distance.

Taking into account the short-term duration of the works (up to 36 months), a **small** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor to moderate** and **not significant adverse** visual effect.

19.5.1.2.4 Viewpoint 4

The clearance of semi-mature trees will be clearly visible to some residents of dwellings, pedestrians and road users. Subsequently, the removal of existing structures and the introduction of the proposed flood defence walls on the right bank and associated works will be visible. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. This will be followed by the implementation of public realm works along Ridgepool Road.

Considering the short-term duration of the works (up to 36 months), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

19.5.1.2.5 Viewpoint 5

The clearance of semi-mature trees will be visible to pedestrians and road users at a slight distance. Subsequently, the removal of existing structures and the introduction of the proposed flood defence walls on the right bank and associated works will be visible. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. This will be followed by the implementation of public realm works along Ridgepool Road.

Taking into account the short-term duration of the works (up to 36 months), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible to minor** and **not significant adverse** visual effect.

19.5.1.2.6 Viewpoint 6

The minor clearance of ornamental vegetation and removal of existing railings and paving along Cathedral Road will be clearly visible to pedestrians, the church congregation and road users. This will be followed by construction works associated with the proposed flood defence walls, raised plaza and associated works which will be clearly visible in the foreground. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Considering the short-term duration of the works (up to 36 months), a **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and **not significant adverse** visual effect.

19.5.1.2.7 Viewpoint 7

The clearance of some of the riverside vegetation, followed by the removal of the existing walls and the introduction of the proposed flood defence walls on both banks of the River Moy and associated works will be visible to pedestrians and road users. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short-term duration of the works (up to 36 months), a **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

19.5.1.2.8 Viewpoint 8a

During construction, the clearance of some semi-mature street trees on the left bank and riverside vegetation on the right bank of the River Moy will be clearly visible to pedestrians and road users. This will be followed by the removal of the existing walls and the introduction of the proposed flood defence walls on both banks of the River Moy and associated works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Considering the short-term duration of the works (up to 36 months), a **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

19.5.1.2.9 Viewpoint 8b

During construction, the clearance of riverside vegetation on the far bank of the River Moy will be visible to pedestrians and road users. This will be followed by the removal of the existing walls and the introduction of the proposed flood defence walls and associated works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible.

Taking into account the short-term duration of the works (up to 36 months), a **negligible** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **negligible to minor** and **not significant adverse** visual effect.

19.5.1.2.10 Viewpoint 9

The clearance of mature trees will be visible to residents of dwellings and road users at a slight distance along with the removal of the existing wall and post and rail fence. This will be followed by construction activities associated with the proposed flood defence wall and related works. Construction machinery, vehicles and traffic management measures necessary for the works at this location will also be visible. The implementation of the proposed landscape works will also be visible.

Considering the short-term duration of the works (up to 36 months), a **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant adverse** visual effect.

19.5.2 Operational Phase

Long term effects on landscape and visual amenity associated with the operational phase of the Ballina Flood Relief Scheme will arise.

19.5.2.1 Effects on Landscape and Landscape Character– Year 1 of Operation

The landscape effects will be detailed for each area of the Proposed Scheme below.

19.5.2.1.1 River Moy

Landscape effects on the river corridor at the heart of Ballina Town will arise as a result of the visibility of the Proposed Scheme. These are outlined below in **Table 19-9** to **Table 19-13** with reference to each section of the Proposed Scheme extending from south to north.

Details on the public realm proposals for Ridgepool Road and Cathedral Road can be found on drawings in **Appendix: 19.2** and **Appendix: 19.3**, respectively.

Table 19-9: River Moy - Ridgepool Road

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of ash street trees due to ash dieback	Direct minor adverse change from the removal of semi-mature trees from Ridgepool Street.	The absence of the existing semi-mature trees will be apparent from the surrounding.
Redesign and widening of existing footpath with a consistent finish of reused existing and new concrete pavers in contrasting colours to create paving pattern design. Granite kerbing is proposed.	Beneficial change in terms of spatial layout and materials	The new public realm measures will be apparent in the immediate vicinity of Ridgepool Road.
Alternating sections of walls and railings as well as low concrete wall will be replaced with new stone-clad low walls with railings above.	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.	The introduction of the proposed flood wall and railings will be clearly apparent in the immediate vicinity of Ridgepool Road, Upper Bridge and the pedestrian bridge. Beneficial changes will be associated with this due to the replacement of a mixture of walls and railings with stone-clad walls and railings of a high standard
Planting of new street trees in ornamental shrub beds in buildouts between reorganised car parking spaces.	New planting introduced as beneficial direct change	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes.

Table 19-10: River Moy - Cathedral Road

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of ornamental shrub beds and wide perpendicular riverside access	Direct beneficial changes to the landscape along the River Moy	The removal of the shrub beds and perpendicular river access that at present divides the riverside space into three areas with little purpose will allow for a continuous space.
Raising of flood walls	Small direct adverse changes to Cathedral Road	This change will be mainly perceived from Emmet Street, where the taller walls may be slightly more apparent.
Raised plaza with swirling paving patterns in limestone nearly the whole length of Cathedral Road with regular stepped access from the pavement and ramped access at both ends.	Direct beneficial change in paving material and minor adverse change in topography to Cathedral Road	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 will be partially concealed from the footpaths and buildings along Cathedral Road.
Repaving of footpath non-slip limestone paving and granite kerbing	Beneficial direct change to the urban landscape along the River Moy.	The change from concrete footpath surfacing and kerbing to natural stone in keeping with heritage structures such as the Cathedral and Upper and Lower bridges will have a beneficial effect on the urban landscape.
Replacement of existing railings with new railings.	Small direct beneficial changes to the urban landscape along the River Moy	The existing railings are damaged in some places and not of a high finish. Replacing these railings finished in black with simple stainless-steel railings will make the railings less visually imposing
Planting of additional lime trees to replace previously removed trees and fill in gaps in the line of avenue trees currently occupied by the wide perpendicular access to the river	Direct beneficial change to the urban landscape along the River Moy.	Filling the gaps and completing the avenue of lime trees along Cathedral Road will give a more uniform appearance to the Cathedral Road landscape.

Table 19-11: River Moy – Emmet Street

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of concrete pavers and repaving of footpath with non-slip limestone paving and granite kerbing	The introduction of high-quality paving materials that are in keeping with the existing adjacent limestone ashlar wall will be a highly beneficial change	The new public realm measures will be apparent in the immediate vicinity of Emmet Street as a highly beneficial change.
The existing wall will be rebuilt, and existing railings will be removed. The gaps in the wall will be replaced with new limestone to match the existing in proportions, colour and finish at Emmet Street. Existing river access will be maintained.	Small direct beneficial changes to the landscape.	The rebuilt wall and filling of the gaps with matching stone will be apparent from Emmet Street Cathedral Road as well as the Lower and Upper Bridges, but there will be no visibility from the nearby Pearse Street ACA

Table 19-12: River Moy – Bachelors Walk

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of some riverside trees and vegetation	Direct adverse change from the removal of some mature trees and riverside vegetation.	The absence of the existing mature trees will be apparent from the surrounding areas.
Repaving footpath with reclaimed concrete pavers from Emmet Street and new concrete kerbing to match the footpath on the south eastern side of Bachelors Walk.	Direct beneficial change to Bachelors Walk.	Repaving of the footpath with reclaimed concrete pavers to match the footpath on the other side will be apparent on Bachelors Walk and its junction with Emmet Street and Dillon Terrace only.
New flood walls	The new flood defence wall will be introduced into the urban landscape of Ballina. The wall will be faced in stone to match that locally present in the surrounding area, resulting in a beneficial direct change.	The wall will follow the same line as the existing wall with the exception of the buildouts. The landscape effects will be seen from Clare Street, Bachelors Walk and Lower Bridge.
Tree and shrub planting suitable for river banks to screen the boatyard and dairy buildings	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes.

Table 19-13: River Moy – Clare Street

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of some riverside trees and vegetation as well as mature street trees	Direct adverse change from the removal of some mature street trees and riverside vegetation	The absence of the existing mature trees will be apparent from the surrounding areas.
New flood walls with buildouts to accommodate new street trees.	The new flood defence wall will be introduced into the urban landscape of Ballina. The wall will be faced in stone to match that locally present in the surrounding area, resulting in a beneficial direct change.	The wall will follow the same line as the existing wall with the exception of the buildouts. The landscape effects will be seen from Clare Street, Bachelors Walk and Lower Bridge
Repaved concrete footpaths with granite kerbs	Minor direct beneficial change	The proposals will be seen from Clare Street only.
Planting of new street trees in wall buildouts	Direct beneficial change to Clare Street	Reinstating avenue tree planting along Clare Street to mirror that on Bachelors Walk will have a landscape effect on Clare Street, Bachelors Walk and Lower Bridge as well as the northern parts of Emmet Street and Cathedral Road.
Compensatory native wet woodland planting in riverside park.	New planting introduced as a beneficial change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes.

Effects on the wider landscape character of the River Moy corridor will arise during year 1 of operation as a result of the visibility of the proposed changes described in the tables above.

Adverse effects will be associated primarily with the tree and shrub vegetation losses in particular.

There will be very minor spatial changes as the route of the flood walls will generally follow the line of existing walls.

Beneficial effects to the local urban landscape of Ballina Centre are anticipated to arise as a result of the proposed flood defences, where these are faced in stone and are due to replace concrete structures or rubble walls and railings in run down condition. The beneficial effects will be derived from the use of quality

materials such as stone which is sympathetic with the local urban character. Furthermore, there will be a more consistent approach in terms of design, finish and materials along the length of the River Moy, with small local changes to appropriate for the immediate surroundings.

The public realm enhancements associated with the Proposed Scheme along the River Moy will have beneficial landscape effects. This applies in particular to Cathedral Road with the proposed continuous raised plaza with the swirling paving design in non-slip limestone and footpath finished in matching stone.

Further beneficial effects will be derived in the existing landscape from the newly introduced street trees on Ridgepool Road, Clare Street and Cathedral Road and ornamental shrub planting on Cathedral Road and Ridgepool Road. The riverside planting on both sides of the northern part of the River Moy will be juvenile at this stage and have a neutral effect.

Taking into account the beneficial effects 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 effect.

19.5.2.1.2 Quignamanger Stream

Landscape effects in the Quignamanger sub-study area will arise as a result of the visibility of the Proposed Scheme and are outlined in **Table 19-14**.

Table 19-14: Quignamanger Stream

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Removal of ash trees due to ash dieback	Minor direct adverse change from removal of trees.	The absence of some existing mature trees will be apparent in the vicinity to adjacent residential dwellings and road users.
A flood wall will replace the post and rail fence along the open reach of the channel located before the culvert that passes under Quay Road	The introduction of stone-clad wall in keeping with the existing adjacent wall will be a beneficial change.	The new wall to match the adjacent existing wall will be apparent from Creggs and Quay Road.
Replacement of existing culvert with an open channel discharging to the River Moy	Minor direct beneficial change	This change will be barely apparent from a very limited area.
Introduction of compensatory native wet woodland planting	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes.

Some adverse effects will be associated with the removal of trees. The other minor changes such as the introduction of a flood defence wall will have a beneficial effect on the landscape.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **medium** sensitivity resulting in a **negligible to minor** and not significant beneficial effect.

19.5.2.1.3 Bunree / Behy Road Stream

Landscape effects in the Bunree sub-study area will arise as a result of the visibility of the Proposed Scheme and are outlined in **Table 19-15**.

Table 19-15: Bunree Stream

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Loss of some street trees and mature trees on the green in Moyvale Park housing estate.	Direct adverse change from removal of trees.	The absence of the existing mature trees and riverside vegetation will be

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
		apparent in the vicinity to adjacent residential dwellings and road users.
New section of open channel in the Moyvale Park housing estate and removal of an existing field bridge	Minor direct beneficial change to the local landscape	The new section of open channel will be perceived from parts of Moyvale Park housing estate and a section of the N59 National Road.
Native, thorny shrub and tree planting either side of new open channel to deter access to water.	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes to Moyvale Park housing estate.

These measures will be apparent as small changes with limited influence on the surrounding suburban landscape in the western part of this area and with no change along the eastern part of Behee Road.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **low** sensitivity resulting in a **negligible to minor** and not significant beneficial effect.

19.5.2.1.4 Brusna (Glenree) River

Landscape effects in the Brusna sub-study area will arise as a result of the visibility of the Proposed Scheme and are outlined in **Table 19-16**.

Table 19-16: Brusna River

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Loss of some mature, riverside trees and vegetation.	Removal of trees from the riverbanks of the Brusna River is a direct adverse change.	The absence of the existing mature trees and riverside vegetation will be apparent in the vicinity to adjacent residential dwellings.
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.
Addition of beam spanning the river in front of the bridge to Shanaghy Heights	Very minor adverse change to the river landscape.	This change will be apparent from a very limited area surrounding the bridge, if at all.
Compensatory native planting along the riverbank	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes.

The most apparent change will be the introduction of the new flood defence walls along the R294 regional road and at Rathkip/Shanaghy. The introduction of this more urban structure rural landscape will give rise to

the greatest landscape effects in this area. The embankment at the entrance to Shanaghy Heights along with the adjacent wall will screen the attractive riverside meadow from the road.

All other changes will be minor in comparison.

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.

19.5.2.1.5 Tullyegan Stream

Landscape effects in the Tullyegan sub-study area will arise as a result of the visibility of the Proposed Scheme and are outlined in **Table 19-17**.

Table 19-17: Tullyegan Stream

Proposed Scheme	Direct Changes to Landscape	Effects on Landscape Character at year 1 of operation
Loss of some mature tree and beech hedge to property boundary	Direct adverse change from the removal of trees from the immediate vicinity of Tullyegan Stream.	The absence of the existing mature trees will be apparent in the immediate vicinity, which is at the curtilage of adjacent residential dwellings.
New flood walls are proposed on either side of the stream up to 0.75 m in height	Minor adverse change from the proposed built structure introduced into the suburban landscape.	These changes will be apparent from a very limited area surrounding the works including the rear of dwellings along the L1122 local road.
Embankment installed on the north western section	Minor adverse change from the proposed landscape element introduced into the suburban landscape	This change will be barely apparent from a very limited area.
Compensatory native planting at the entrance to Rehins Fort housing estate	New planting introduced as beneficial direct change.	The proposed planting will be juvenile, having been recently planted and will contribute limited beneficial changes to Rehins Fort.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **low** sensitivity resulting in a **negligible to minor** and **not significant, neutral** effect.

19.5.2.2 Effects on Visual Amenity– Year 1 of Operation

Visual effects will be experienced by a range of viewer types at a number of viewpoint locations as a result of the Proposed Scheme at Year 1 of operation. These are discussed below. Refer to **Appendix 19-4** Photomontages for details.

19.5.2.2.1 Viewpoint 1

At year 1 of operation, residents of dwellings and road users will not see the completed flood defences from this location. The absence of two mature trees in the background will not be visible from this location.

There will be **no change** in the view at Year 1 of operation.

19.5.2.2.2 Viewpoint 2

The proposed flood relief wall will be clearly visible along the R294 regional road in the foreground to residents of dwellings and road users. Both adverse and beneficial visual effects will be associated with this change. The screening of views of the riverside vegetation and introduction of built elements to a natural roadside view will give rise to adverse effects, but beneficial effects will be associated with the facing of the wall in local stone will improve.

Taking into account adverse built element but beneficial effect from aesthetic design of wall, a **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** visual effect at year 1 of operation.

19.5.2.2.3 Viewpoint 3

The proposed flood defence wall, faced in stone will be visible to residents of nearby dwellings. It will replace the concrete post and wire mesh fence and part of the bridge parapet railings both sides of the Brusna River. The native tree planting on the far bank will not be visible from this location one year after planting. Clearly visible in the foreground, the replacement of the fence with a natural stone clad wall will be a beneficial effect, however, the screening of views of the riverside vegetation and the size and scale of the wall introduction will give rise to adverse effects.

A **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and **not significant beneficial** visual effect at year 1 of operation. This takes account of the fact that the wall has been carefully designed to fit with the baseline landscape character and presents as one uniform boundary treatment replacing run down and an unsightly variety of fence boundaries.

19.5.2.2.4 Viewpoint 4

At one year of operation residents of dwellings, road users and pedestrians on the footbridge will see the proposed low flood defence wall with railings above in the foreground with the proposed semi-mature street trees behind. The absence of the existing semi-mature ash trees, removed in construction due to ash-dieback, will be clearly visible to some residents of dwellings, road users and pedestrians. The repaved public realm design will not be visible from this location.

A **small** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor to moderate** and **not significant beneficial** visual effect at year 1 of operation.

19.5.2.2.5 Viewpoint 5

At one year of operation pedestrians and road users will see the proposed low flood defence wall with railings above in the foreground with the proposed semi-mature street trees behind. The absence of the existing semi-mature ash trees, removed in construction due to ash-dieback, will be clearly visible to some residents of dwellings, road users and pedestrians. The repaved public realm design will not be visible from this location.

A **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant beneficial** visual effect at year 1 of operation.

19.5.2.2.6 Viewpoint 6

The absence of ornamental vegetation and change in layout will be clearly visible to pedestrians, the church congregation and road users on Cathedral Road, at Year 1 of operation. The continuous raised plaza will have a beneficial with the swirling paving design in non-slip limestone can be seen throughout the length of Cathedral Road. New riverside railings and street furniture can also be seen. The same natural stone paving can also be seen on the footpath. From this location the planting of additional lime trees to replace previously removed trees and fill in gaps can be seen as a continuous regularly spaces line of avenue trees along Cathedral Road.

A **medium** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **moderate to major** and **significant beneficial** visual effect at year 1 of operation.

19.5.2.2.7 Viewpoint 7

At one year of operation pedestrians and road users will see the proposed low flood defence wall along Bachelors Walk in close vicinity and the proposed wall along Clare Street with the proposed semi-mature street trees in the wall buildouts in the background. The absence of some mature street trees on Clare Street and riverside vegetation on both banks of the River Moy will be visible as a slight adverse change to the existing view.

A **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant neutral** visual effect at year 1 of operation.

19.5.2.2.8 Viewpoint 8a

At one year of operation pedestrians and road users will see the proposed low flood defence wall in the foreground along Clare Street with the proposed semi-mature street trees in the wall buildouts. The absence of some mature street trees and riverside vegetation on the far bank of the River Moy will be visible as an adverse change to the existing view.

A **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant neutral** visual effect at year 1 of operation.

19.5.2.2.9 Viewpoint 8b

At Year 1 of operation, the absence of mature trees and riverside vegetation on the opposite side of the River Moy will be clearly visible as an adverse change from the existing view to pedestrians and road users. This will open up less attractive views to the boatyard and Ballina Dairies buildings. Proposed planting in the foreground will be slightly visible against the proposed flood defence walls. The planting, in a juvenile state, will result in some very limited beneficial effects during year 1 of operation.

A **small** magnitude of impact is expected to arise to viewers of **medium** sensitivity resulting in a **minor** and **not significant adverse** visual effect at year 1 of operation.

19.5.2.2.10 Viewpoint 9

The absence of some of the existing semi-mature and mature ash trees, removed in construction due to ash-dieback, will be visible to some residents of dwellings, road users and pedestrians at Year 1 of operation.

The new stone-clad wall in keeping with the existing adjacent wall can be seen to the left of the viewpoint. The compensatory native wet woodland planting in the background of the view will be juvenile, having been recently planted and will not be visible at this stage.

A **negligible** magnitude of impact is expected to arise to viewers of **high** sensitivity resulting in a **minor** and **not significant beneficial** visual effect at year 1 of operation.

19.6 Residual Impacts

19.6.1.1 Effects on Landscape and Landscape Character– Year 15 of Operation

19.6.1.1.1 River Moy

The proposed planting on the riverbank at the boatyard and Ballina Dairies as well as in the park on the opposite side of the river will have established and have reached a level of maturity at Year 15 of operation. The proposed planting to the west of the river will screen the previously exposed boatyard and dairy buildings. The proposed tree planting will soften the urban landscape and will restore some of the original natural riverbank character previously lost during construction. Additionally, the proposed street trees to be planted along Clare Street, Ridgepool Road and Cathedral Road will have matured by 15 years resulting in beneficial effects on Ballina's urban streetscape.

Taking into account the beneficial effects 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 significant beneficial** effect.

19.6.1.1.2 Quignamanger Stream

The proposed native woodland planting in the area adjacent to the junction of Creggs and Quay Rd will have established and have reached a level of maturity at Year 15. The proposed planting will be of a size that contributes to the enhancement of the suburban/urban landscape.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **medium** sensitivity resulting in a **negligible to minor** and **not significant beneficial** effect.

19.6.1.1.3 Bunree / Behy Road Stream

At Year 15, the proposed native woodland planting adjacent to the Bunree Stream in the Moyvale Park housing estate will have established and have reached a level of maturity at Year 15. The planting will be of a size that contributes to the enhancement of the suburban landscape.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **low** sensitivity resulting in a **negligible to minor** and **not significant beneficial** effect.

19.6.1.1.4 Brusna (Glenree) River

The proposed native woodland planting adjacent to the southern bank of the Brusna will have established and have reached a level of maturity at Year 15, contributing to the enhancement of the rural landscape and partially screening parts of the new flood wall.

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.

19.6.1.1.5 Tullyegan Stream

The proposed native woodland planting in the Rehins Fort housing estate will have established and have reached a level of maturity at Year 15 contributing to the enhancement of the suburban landscape.

Taking into account the beneficial effects balanced with the adverse effects overall, a **negligible** magnitude of impact is considered to arise to this landscape of **low** sensitivity resulting in a **negligible to minor** and **not significant neutral** effect.

19.6.1.2 Effects on Visual Amenity– Year 15 of Operation

19.6.1.2.1 Viewpoints 1 and 2

In the case of Viewpoints 1 and 2, the proposed planting will not be visible and thus, the assessment of effects at Year 15 of operation is considered to be similar to that at Year 1 of operation.

19.6.1.2.2 Viewpoint 3

At year 15, the proposed woodland planting on the opposite bank of the river will have advanced in growth and will contribute some beneficial effects to the proposed view. The proposed flood relief structures will however continue to be clearly visible at short range in the foreground in front of the mature planting.

A **medium** magnitude of impact by viewers of **high** sensitivity resulting in a **moderate to major** and **not significant beneficial** visual effect at Year 15 of operation.

19.6.1.2.3 Viewpoint 4

At year 15, the proposed new street trees will have advanced in growth and more visible element in the distance resulting in some further improvements to the view. These will have replaced the existing trees suffering from ash-dieback, which at this stage would have significantly deteriorated. The proposed flood relief structures will however continue to be clearly visible at short range in the foreground in front of the mature planting. However, the stonework will have weathered and thus blend into their surroundings.

A **small** magnitude of impact will continue to be experienced by viewers of **high** sensitivity resulting in a **minor to moderate** and **not significant beneficial** visual effect at Year 15 of operation.

19.6.1.2.4 Viewpoint 5

At year 15, the proposed new street trees will have advanced in growth and will be a more visible element in the distance resulting in some further improvements to the view. These will have replaced the existing trees suffering from ash-dieback, which at this stage would have significantly deteriorated. The proposed flood relief structures will however continue to be clearly visible at short range in the foreground in front of the mature planting. However, the stonework will have weathered and thus blend into their surroundings.

A **small** magnitude of impact will continue to be experienced by viewers of **medium** sensitivity resulting in a **minor** and **not significant beneficial** visual effect at Year 15 of operation.

19.6.1.2.5 Viewpoint 6

The proposed new ornamental shrub planting will have matured and will be partially visible in the background with the proposed new paving and railings in the foreground resulting in a further minor improvement in the view. The proposed new paving, railings and street furniture will have weathered and thus better blend into their surroundings.

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.

19.6.1.2.6 Viewpoint 7

At year 15, the proposed new street trees along Clare Street will have advanced in growth and will contribute some beneficial effects to the proposed view. The proposed flood relief structures will however continue to be clearly visible at medium range in front of the mature planting. However, the stonework will have weathered and thus better blend into their surroundings.

A **small** magnitude of impact will continue to be experienced by viewers of **medium** sensitivity resulting in a **minor** and **not significant beneficial** visual effect at Year 15 of operation.

19.6.1.2.7 Viewpoint 8a

The proposed new street trees along Clare Street at this level of maturity will contribute some beneficial effects to the proposed view at year 15. The proposed flood relief structures will however continue to be clearly visible at short range in front of the mature planting. However, the stonework will have weathered and thus better blend into their surroundings.

A **small** magnitude of impact will continue to be experienced by viewers of **medium** sensitivity resulting in a **minor** and **not significant beneficial** visual effect at Year 15 of operation.

19.6.1.2.8 Viewpoint 8b

At year 15, the proposed woodland planting on the opposite bank of the river will have advanced in growth and will contribute some beneficial effects to the proposed view by screening the boatyard and dairy buildings as well as parts of the proposed new flood wall.

A **negligible** magnitude of impact will be experienced by viewers of **medium** sensitivity resulting in a negligible **minor** and **not significant beneficial** visual effect Year 15 of operation.

19.6.1.2.9 Viewpoint 9

At year 15, the proposed native woodland planting in the area adjacent to the junction of Creggs and Quay Rd will have matured and will be partially visible behind the existing and new walls lining Creggs Road screening the second proposed wall further south, resulting in a further improvement in the view.

Thus, viewers of **high** sensitivity will continue to experience a **negligible** magnitude of impact resulting in a **minor** and **not significant beneficial** visual effect at Year 15 of operation.

19.7 Monitoring

19.7.1 Construction Phase

Protection of the existing trees to be retained will be monitored during construction in accordance with BS 5837:2012 Trees in relation to construction.

19.7.2 Operational Phase

There is no monitoring proposed at operational phase of the Proposed Scheme.

19.7.2.1 Landscape Management

Long term landscape management and maintenance measures are recommended for implementation during the lifetime of the Proposed Scheme to monitor the health of the proposed planting. These measures will include a range of arboricultural and landscape maintenance tasks for the purpose of maintaining or improving the health of existing retained vegetation and proposed planting.

19.8 Interactions and Cumulative Effects

Inter-relationships are the impacts and associated effects of different aspects of the Proposed Scheme on the same receptor. The potential for cumulative effects has been considered for the construction and operation of the Proposed Scheme cumulatively with other projects. Please see **Chapter 20 Interactions and Cumulative Effects** for further details on the potential interactions and cumulative effects for Landscape and Visual.

19.9 Schedule of Environmental Commitments

Please see **Chapter 22 Schedule of Environmental Commitments** which sets out all the mitigation and monitoring commitments to minimise the potential impacts for Landscape and Visual during the construction and operational phase of the Proposed Scheme.