

Environmental Impact Assessment Report

TEN-T Priority Route Improvement Project, Donegal

Chapter 19: Interactions and Cumulative Effects



TT_MGT0337-RPS-P3-ZZ-RP-E-EN0001

EIAR

March 2026

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List of Abbreviations

The following is a list of abbreviations used within this chapter of the Environmental Impact Assessment Report (EIAR).

Table 19-1: TEN-T List of the 'Interactions and Cumulative Effects' Abbreviations

List of Abbreviations	
AAP	Areas of Archaeological Potential
CAP	Climate Action Plan
CIA	Cumulative Impact Assessment
FRS	Flood Relief Scheme
IEL	Industrial Emissions Licences
IPC	Integrated Pollution Control
NIFTI	National Investment Framework for Transport in Ireland
NTA	National Transport Authority
OHL	Overhead Lines
SHD	Strategic Housing Development
SID	Strategic Infrastructure Development

19 INTERACTIONS AND CUMULATIVE EFFECTS

19.1 Introduction

This chapter assesses the interactions and cumulative effects associated with the Proposed Development. Interactions are assessed between all environmental disciplines discussed in the EIAR (Chapters 7-18). Cumulative effects are assessed in regard to existing and approved projects and other proposed developments with potential to impact the Proposed Development.

The overall impacts resulting from the construction of the three sections that make up the Proposed Development have been assessed in Chapters 7-18 of the EIAR.

19.2 Legislation and Guidance

Legislation

Article 3 of the EIA Directive, with specific focus on part **e**, which states:

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

- a. population and human health;*
- b. biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC and Directive 2009/147/EC;*
- c. land, soil, water, air and climate;*
- d. material assets, cultural heritage and the landscape;*
- e. the interaction between the factors referred to in points (a) to (d).”*

Annex IV (5)(e) of the 2011 EIAR Directive as amended by Directive 2014/52/EU requires that the EIAR shall contain:

A description of the likely significant effects of the project on the environment resulting from, inter alia:

- a. The cumulation of effect with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources.*

Annex IV (5) states:

“The description of the likely significant effects on the factors specified in Article 3(1) should cover the direct effects and any indirect, secondary, cumulative, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project. This description should take into account the environmental protection objectives established at Union or Member State level which are relevant to the project”.

Under Section 50(2)(b) and (c) of the Roads Act 1993 (as amended) the EIAR should contain:

“(i) a description of the proposed road development comprising information on the site, design, size and other relevant features of the development;

(ii) a description of the likely significant effects of the proposed road development on the environment;

(iii) a description of any features of the proposed road development and of any measures envisaged in order to avoid, prevent or reduce and, if possible, offset likely significant adverse effects on the environment;

(iv) a description of the reasonable alternatives studied by the road authority or the Authority, as the case may be, which are relevant to the proposed road development and its specific characteristics, and an indication of the main reasons for the option chosen, taking into account the effects of the proposed road development on the environment;

(v) a non-technical summary of the information referred to in subparagraphs (i) to (iv);

(vi) any additional information specified in Annex IV that is relevant to the specific characteristics of the particular proposed road development or type of proposed road development and to the environmental features likely to be affected

and

(c) takes into account the available results of other relevant assessments carried out pursuant to any Act of the Oireachtas or under European Union legislation with a view to avoiding duplication of assessments.”

Guidance

The Environmental Protection Agency (EPA) *Guidelines on the Information to be Contained in Environmental Impact Assessment Reports* (2022) states at paragraph 3.7.6 that:

“The interactions between effects on different environmental factors should be addressed as relevant throughout the EIAR.”

Cumulative effects are defined on Page 52 of the EPA Guidelines as:

“The addition of many minor or insignificant effects, including effects of other projects, to create larger, more significant effects.”

The following guidelines and publications were considered in undertaking the cumulative impact assessment (CIA):

- Guidelines on the Assessment of Indirect and Cumulative Impacts as well as Impact interactions (European Commission (EC), 1999)
- Guidelines on the Information to be Contained in Environmental Impact Assessment Reports (EPA, 2022)
- Guidance on the Preparation of the Environmental Impact Assessment Report (European Commission 2017)
- Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment (Department of Housing, Local Government and Heritage, 2018)

19.3 Competent Experts

This chapter of the EIAR has been led by the Environmental Coordinators on the project, Gareth McElhinney and Tatiana Kelley. Additionally, each of the competent experts that led the authoring of the main chapters of the EIAR (Chapters 6 through 18) has contributed to this chapter and assessed the interactions and cumulative effects of the projects in relation to their specialist areas and.

Gareth McElhinney is a Technical Director in RPS with over 26 years' experience. He holds a BE in Civil Engineering, a Postgraduate Diploma in Environmental Sustainability, and a Masters in Business Studies. He is a Chartered Engineer and Fellow with Engineers Ireland, a Registered Consulting Engineer with ACEI and a Project Management Professional with PMI. Gareth is experienced in the delivery of infrastructure projects across the environment and transport sectors and as part of multi-disciplinary teams. These projects include offshore wind, roads and greenways, water and healthcare infrastructure, oil & gas exploration, and environmental engineering, particularly in the waste management area and the construction and remediation of landfills. Gareth was co-author of the EPA's Guidance on assessing and costing environmental liabilities (EPA, 2014).

Tatiana Kelley is a Senior Engineer with RPS with eight years' experience working in Environment, Water and Wastewater Engineering. She has experience working in large-scale roads projects and flood relief schemes and has a strong understanding of Irish and EU environmental policy and legislation. Tatiana has expertise in completing the Risk of Major Accidents and Disasters assessment and is the lead author of the chapter for EIAR's associated with flood relief schemes. She also has expertise in coordinating and reviewing EIA Screening and Scoping and EIARs. Responsibilities include the identification and quantification of risks on projects, advisory role of environmental aspects of infrastructure design projects, management of project programme and organising the creation of EIA applications in line with relevant planning policy and legislation.

19.4 Methodology

19.4.1 Interactions

Interaction effects between all environmental disciplines relevant to the Proposed Development are assessed using a collaborative approach. Interactions refer to the effect a discipline's impacts and proposed mitigations have on another discipline.

Interactions were determined through consultation between relevant environmental experts and the design team. Public and stakeholder consultations were completed at key stages of design. Relevant input informed the assessment of interactions for disciplines such as Landscape & Visual in regards to Cultural Heritage amenity access, for example. Further details regarding the consultation process associated with the Proposed Development is provided in individual discipline's chapters and Appendix C5.08. Furthermore, disciplines such as Material Assets Agriculture and Material Assets Non- Agriculture consider information provided through consultations with land liaison officers (LLOs) and land-owners.

Potential positive and negative interactions between factors were considered during construction (C) and operational (O) phases. Interactive effects between environmental disciplines are outlined in a summary matrix provided in Table 19-3.

Interactions between various impacts within the Proposed Development include examining the possibility of three sections of the Proposed Development being constructed simultaneously. This was included in the specific disciplines assessments (Chapters 7-18 of the EIAR). Mitigation measures are also provided in these assessments where required.

19.4.2 Cumulative Effects

As stated in the EU guidance for preparing EIARs (European Commission, 2017), cumulative effects can arise from the following:

- Interactions between all of the different projects in the same area.
- Interactions between the various impacts within a single project.

Interactions between the various impacts within the Project are discussed as part of the description of interactions in Section 19.6.

Cumulative effects were determined with consideration to existing and approved projects as well as other proposed developments with potential to impact the Proposed Development. A collaborative approach was used, as recommended by EU guidance for preparing EIARs (European Commission, 2017):

"Significance thresholds and criteria for the assessment of cumulative effects should be defined through a collaborative approach, involving all of the interested and affected parties in the process of data collection and analysis."

Furthermore, the assessment examines effects within both spatial and temporal scales:

"When considering significance, the cumulative effects of all the Projects in the area, both spatial and temporal, should be considered."

A cumulative impact assessment (CIA) has been developed to meet the published guidance listed in Section 19.2 and to methodically and transparently assess and screen the projects that may be considered to have cumulative effects with the Proposed Development. The assessment involved a three-stage process that considered the level of detail publicly available for projects, as well as the potential for interactions on a conceptual, physical and temporal basis.

Following EIAR guidance, cumulative impacts brought forward for assessment must:

- Be probable or likely to occur
- Have significant effect(s) on the environment
- Be temporally and spatially relevant to the project

In identifying potential projects and developments the following sources were consulted:

- An Coimisiún Pleanála (ACP) website
- My Plan map viewer (National Planning Application Database)
- EIA Portal map viewer (DHLGH) website
- Donegal County Council (DCC) Planning Website
- Northern Ireland Planning Portal ([Northern Ireland Public Register](#))
- EPA licensing/ permits (www.epa.ie)
- Forestry Mapping- Department of Agriculture, Food and Marine (<https://forestry-maps.apps.rhos.agriculture.gov.ie/>)
- Coillte Forestry (www.coillte.ie)
- Inland Fisheries Ireland (IFI)

The baseline environment considered within the CIA included all existing projects and developments that were constructed and are operational before planning submission of the Proposed Development.

These types of projects and developments within the baseline included:

- Road projects
- Active travel development
- IPC licences
- Industrial emissions licences (IEL)
- Utilities (Water/Wastewater, Energy, Waste, Telecommunications)
- Forestry development
- Quarries
- Flood projects
- Planning applications
- Other projects and developments identified by DCC.

The existing projects and developments form part of the existing baseline environment, against which the Proposed Development was assessed, and against which the likely significant cumulative impacts of the Proposed Development together with the approved projects/developments, and certain other projects/developments which are pending approval have been assessed.

19.4.2.1 Stage 1 Desk Study

Stage 1 identified the projects or activities with potential to interact with the Proposed Development and produce a cumulative impact. Likely significant cumulative impacts may arise during the construction or operational phases.

RPS undertook a desk study to source publicly available information on projects within the defined Zone of Influence (Zoi) using internet searches, planning databases and other available sources. The Zoi was identified with consideration of the specific Zoi for each of the EIAR factors (Chapters 7 to 18), as defined by each EIA topic's specialist. The Zoi for each specialist is detailed in Section 19.9.

The Zol for the majority of topics extended from 50 m to 1,000 m from the centreline of the Proposed Development. For the topic of Landscape and Visual Impacts, the Zol extended up to 5 km. Therefore, to undertake a comprehensive CIA a Zol of 5 km from the centreline was used.

The search for projects and developments within the Zol was for the five-year period preceding the date of issue of this EIAR, or as close as was practicable. The search excluded incomplete, withdrawn, and refused planning applications, as well as those under 'retention' as it is normal that this retention category comprises existing developments and forms part of the baseline. A five-year time frame was deemed the most appropriate period for planning searches as permissions granted more than five years ago would generally be constructed, partially constructed, or under construction.

A search was conducted for the following:

- Planning applications using the My Plan map viewer (DHLGH, 2025), the Environmental Impact Assessment (EIA) Portal map viewer (DHLGH, 2025) and Donegal County Council planning application map viewer (DCC, 2025).
- Planning applications in Northern Ireland within the Zol were identified using the Northern Ireland Planning Portal (NI Planning Portal, 2025).
- Any relevant applications including Strategic Infrastructure Development (SID), Strategic Housing Development (SHD), and Part 8 applications within ABP's website (ABP, 2025).
- EPA licence applications and licenced facilities (EPA, 2025).
- EPA licenced facilities and licence applications within the area defined by the water catchment and groundwater body.
- Part 8 applications, projects considered in the Donegal County Development Plan and any other potential projects identified as relevant by Donegal County Council (DCC).

The following assumptions were applied to the search criteria:

- For evaluating likely temporal overlap, the Proposed Development will entail a maximum five-year (60 months) construction duration assumed to start in late 2027 / 2028. The opening year is expected to be 2032.
- The following types of projects were not listed owing to their nature and scale (i.e. are unlikely to result in cumulative impacts with the Proposed Development due to their small footprint): one-off housing, farm sheds/ buildings, house/ building extensions/ renovations.
- Projects with the following application status were not listed: incomplete, withdrawn, and refused applications, as well as 'retained' application as these are likely to have already been built and so forms part of the baseline.
- Projects that are defined as having 'planning' status were assumed to have potential for temporal overlap as the construction timeline was 'unknown'.
- Projects where any appealed decision was refused.
- Any EPA licence which expires before 2028 was excluded on the basis of no temporal overlap with the assumed construction programme for the Proposed Development.
- Projects that did not fall within the defined Zol were not considered.

Approximate distances to the Proposed Development were provided for each project, to better understand any spatial overlap. Confidence in the status of the permissions was also noted, as there may have been uncertainty as to whether a development had been constructed, or where construction may have been delayed beyond the timeframes/ durations noted in the planning permission/ approvals/consents.

The list of projects includes those that are:

- Operational
- Under construction
- Consented (permitted) but not yet implemented
- Submitted but not yet determined (i.e. in planning or other consent application process)

- Planning exempt projects with potential special and temporal overlap.

Additionally, in consultation with DCC, a number of proposed projects were provided for consideration in the CIA. The projects included those associated with Part 8 applications and projects included in the DCC Development Plan. These are projects that may be pending planning or other approval or DCC have deemed very likely to be completed or approved within the timeframe the Proposed Development will be constructed.

The list of projects that may have potential for cumulative effects are provided in Appendix C19.01. This list was brought forward for Stage 2, where each EIA specialist completed a screening of the list of projects to identify any with potential significant cumulative effects.

Any projects that were brought forward for Stage 2 assessment received a “Yes” in the “Screened In” column of the Appendix C19.01 project list. All screened in projects received a project reference (PR) number.

19.4.2.2 Stage 2 Project Screening

At Stage 2 each environmental expert completed a screening exercise on the list of projects and developments compiled during Stage 1 to identify which projects should be considered in the assessment of cumulative effects. This was carried out in accordance with a set of defined screening criteria set out in Table 19-1.

Table 19-1: Stage 2 CIA Screening Criteria

Criteria	Description of Criteria	Screening Decision (in/out)
Included as part of the topic baseline	A project that has been considered as part of the relevant chapter baseline. It has already been assessed/considered and is therefore not considered within the CIA.	Screened out of assessment
Part of the baseline but has an ongoing impact	If the project is part of the baseline but has ongoing impacts (e.g. operational effects), it is considered relevant to the CIA.	Screened into assessment
Potential cumulative impact exists	An effect and source pathway have been identified either within the construction, operational and/or maintenance phase of the project that may cause a cumulative impact.	Screened into assessment
No conceptual or physical effect-receptor pathway	No source, pathway or effect was identified between the Proposed Development and the project.	Screened out of assessment
Low data confidence	The data provided by the project does not provide enough evidence or lacks adequate information for an assessment of cumulative effects to be completed. For example, if there is insufficient information available to identify a physical or a temporal overlap with the Proposed Development. This may occur if the project is still in planning stages and/or lacks a confirmed route, location or construction programme.	Screened out of assessment
No temporal overlap	The project is defined by a different time frame and does not overlap with the time frame of the Proposed Development.	Screened out of assessment
Project has been withdrawn from development or operation	A withdrawn application is no longer relevant to be subject to assessment.	Screened out of assessment

Projects and developments that were identified by environmental disciplines as having potential significant cumulative effects are provided in Appendix C19.02.

For each project screened in, a “Yes” was inserted in the relevant environmental discipline’s column in Appendix C19.02, identifying which specific discipline had considered a potential for cumulative effect. Where a “Yes” was identified, a pairwise assessment was completed of any likely significant cumulative effects of the Proposed Development with the project listed, in regard to the specific environmental discipline.

Screening criteria within Stage 2 considered data confidence, as well as conceptual, physical and temporal overlaps between the project/ development and the Proposed Development.

Data Confidence

To categorise data confidence for the purposes of this EIAR, a three-point scale was employed (Table 19-2). This scale aims to provide a transparent basis upon which projects and developments may be screened in or out at this step.

For the purposes of screening, projects with high or medium data confidence were automatically screened into the CIA. Projects and developments with low data confidence were screened out of the assessment. This category includes projects and developments that may take place in the future but lack sufficient information on how the project or development will be executed, in what timeframe it will be constructed and operational and where the project footprint will extend. Without this information, a spatial or temporal overlap cannot be determined and therefore impacts were not foreseeable.

Decisions upon whether to screen a project or development in or out at this stage were taken on a topic-by-topic basis. This allowed certain projects and developments to be screened in for disciplines where sufficient detail was present to determine the risk of cumulative effects.

Disciplines endeavoured to assess likely significant effects of projects where the amount of information available was limited. However, some projects or developments may have been screened out where the level of detail was insufficient to determine the risk of cumulative effects (i.e. a spatial or temporal overlap could not be determined and so impacts were not foreseeable).

Table 19-2: RPS Criteria for the Allocation of Data Confidence

Data confidence	Criteria
High	<p>Projects and developments with an EIAR or other equivalently detailed planning document, containing sufficient topic-specific detail for an adequately detailed CIA to be undertaken in a quantitative manner. Expert peer reviewed and/or industry standard third party quantitative or qualitative data.</p> <p>Detailed project parameters for other projects being proposed by the Developer and third-party project details published in the public domain and confirmed as being accurate by the Developer.</p>
Medium	<p>Projects and developments with an EIAR or other equivalently detailed planning document, containing a moderate level of detail, allowing a CIA to be undertaken on a qualitative basis.</p> <p>Third-party data supplied to or obtained by the Developer that has not been subject to peer review and cannot be quality controlled by the Developer.</p> <p>Expert peer reviewed and grey literature that is considered relevant, but either old, and hence potentially not as representative of the current situation, or of insufficient detail to accurately inform assessment in its own right.</p>
Low	<p>Projects and developments with a lack of robust information and where details of implementation are scarce or likely to change before any potential consent/approval.</p> <p>Projects and developments that may be developed in future, but for which no specific information is currently available.</p> <p>Projects and developments where there is insufficient information to determine a spatial or temporal overlap with the Proposed Development.</p>

Conceptual Overlap

For a cumulative effect to occur, it must be established that there is potential to directly or indirectly affect the receptor(s) in question. In EIA terms, this is described as an impact-receptor-pathway and is hereafter referred to as a conceptual overlap. Projects and developments that clearly do not have an overlap were screened out of the assessment. In cases where a conceptual overlap was not clear-cut, the project or development in question was screened into the CIA to maintain the maximum design scenario approach.

Physical Overlap

The ability for impacts arising from the Proposed Development to overlap with those from other projects and developments was assessed on a receptor basis for each topic. An overlap of the physical extents of the impacts arising from the two (or more) projects or development may result in a cumulative impact. Exceptions to this exist for certain mobile receptors that may move between, and be subject to, separate physical extents of project impacts.

For the purposes of the Proposed Development CIA, all projects and developments which did have a physical overlap of impacts for a given discipline were initially screened in.

Temporal Overlap

For a cumulative effect to arise from two or more projects, a temporal overlap of impacts arising from each must be established. The anticipated construction periods for projects, plans and developments within the Stage 1 list were obtained from their relevant planning documents. In order to consider worst case, where information on construction timeframes was unknown or not certain, it was assumed that construction programmes would overlap.

For the purposes of the CIA, all projects and developments that were built and operational at the time of the Proposed Development data collection (field surveys etc.) were screened out of the relevant EIA topic CIA. This is because the effects of these projects/developments were captured within the Proposed Development site-specific surveys, and hence their effects were already accounted for within the baseline assessment. The exclusion of built and operational projects avoids the double counting that would occur if projects were to be included within both the baseline and the CIA. The exception to this is where projects have an ongoing impact. This was addressed by considering the project or development as 'part of the baseline but has an ongoing impact'.

19.4.2.3 Stage 3 Implementing CIA

The impact assessment (Stage 3) assessed the potential cumulative impacts of the projects and developments screened in during Stage 2. All disciplines aimed to undertake a full quantitative assessment within their CIA, however, where required, a mix of qualitative and quantitative, or wholly qualitative assessment were employed.

Stage 3 assessment is provided in Section 19.9. Projects and developments identified by all environmental disciplines as having potential to cause significant cumulative effects are listed in Appendix 19.2.

19.5 Interactions Matrix

Table 19-3 illustrates the likely relevant interactions between environmental factors during both construction and operational phases of the Proposed Development. 'C' denotes the construction phase, and 'O' denotes the operational phase.

The effects matrix identifies the factors in the left-hand column, which have the potential to impact on other factors listed in the top row of the matrix. Where a tick "√" is present, this indicates that the Proposed Development has the potential to result in an interaction between the two environmental factors. Where there is no potential for an interaction between factors, this is indicated by a hyphen "-" in the matrix.

Once a potential interaction between two environmental components has been discussed, the interaction will not be discussed again in the following relevant section.

Table 19-3: Interactive Effects Summary Matrix During Construction (C) and Operational (O) Phases

	PHASE	T&T	POP	HH	BIO	L+S+HYD	WAT	AQ	CLI	N&V	MA: AG	MA: NON-AG	CH	L&V
T&T	C													
	O													
POP	C	✓												
	O	✓												
HH	C	✓	✓											
	O	✓	✓											
BIO	C	✓												
	O	✓		✓										
L+ S+ HYD	C	✓		✓	✓									
	O	✓												
WAT	C	✓			✓	✓								
	O				✓									
AQ	C	✓	✓	✓	✓	✓	✓							
	O	✓	✓	✓	✓	✓	✓							
CLI	C	✓				✓								
	O	✓				✓								
N&V	C	✓	✓	✓	✓	✓								
	O	✓	✓	✓										
MA: AG	C	✓	✓			✓	✓	✓		✓				
	O													
MA: NON-AG	C	✓	✓			✓	✓		✓		✓			
	O						✓							
CH	C					✓	✓			✓		✓		
	O		✓				✓							
L&V	C	✓	✓		✓	✓				✓	✓	✓	✓	
	O		✓		✓	✓				✓	✓	✓	✓	

Key:

T&T = Traffic & Transportation

POP = Population

HH = Human Health

BIO = Biodiversity

L+S+HYD = Land, Soils & Hydrogeology

WAT = Water

AQ = Air Quality

CLI = Climate

N&V = Noise & Vibration

MA: AG = Material Assets: Agriculture

MA: NON-AG = Material Assets: Non-Agriculture

CH = Cultural Heritage

L&V = Landscape & Visual

19.6 Description of Interactions

Descriptions of the interactions identified between different environmental topics in Table 19-3 are provided in Section 19.6.1 through Section 19.6.13 below.

19.6.1 Traffic & Transportation

As identified in Table 19-3, interactions between Traffic & Transportation and the following factors have been identified and assessed: Population, Human Health, Biodiversity, Land, Soil & Hydrogeology, Water, Air Quality, Climate, Noise & Vibration, Material Assets (Agriculture and Non-Agriculture), and Landscape & Visual.

Population

The Population assessment partially draws from and builds upon the technical outputs from the Traffic & Transportation assessment. During the construction phase, negative effects to population receptors within the three sections of the Proposed Development will occur as a result of increases in construction traffic activity, temporary traffic restrictions, and general amenity impacts such as temporary diversions as a result of construction works.

During the operational phase, there will be a positive effect due to the improved efficiency of the road network, public transport and active travel, as well as enhanced safety and journey amenity for users (including active travel modes). Some severance effects have been identified where the most significant effects identified are on the resident community at Dromore.

The reduction of traffic congestion and associated noise and air quality effects within the environs along existing routes from which strategic traffic will be diverted (including the town centres of Ballybofey and Stranorlar and a reduction in traffic through the centre of Letterkenny) is considered to be a positive effect. Changes in the road network have the potential to result in negative residual effects on certain sectors with respect to trade if passing custom decreases. The Population assessment considers that up to 25 no. jobs could be lost from the service station sector from individual businesses due to changes in traffic patterns, however this is considered a worst-case scenario given the necessary services provided and the lack of proposed online services as part of the Proposed Development, the fact that existing roads will remain open which will ensure retention of a proportion of existing passing trade, and the fact that enhanced accessibility may attract new custom to replace some of that lost. The provision of a new link road to open up zoned lands in Ballybofey is a long-term positive effect.

New active travel infrastructure as part of the Proposed Development will encourage non-motorised travel on strategic routes. Use of public transport will also be encouraged through reduced traffic congestion and park and ride facilities. This will particularly benefit households who do not have access to private motorised vehicles and also has potential for increased cycle tourism. Access to and between community lands and assets and tourism facilities and attractions will also improve. These are considered to have long-term positive effects.

The impact of the interactions between Traffic & Transportation and Population have been included in the assessment in Chapter 7: Population of the EIAR; see Sections 7.4.1, Section 7.4.2.2.1, and Section 7.4.3.

Human Health

During the construction phase, Human Health considers the effects on physical activity as a result of disruption to active travel routes, as well as how construction affects public health through changes in road safety and accessibility, including travel times for road users and emergency services.

During the operational phase, Human Health considers how the new highway infrastructure and traffic flows affect walking and cycling, benefit road safety and influence journey times that may affect routine or emergency healthcare access.

The impact of the interactions between Traffic & Transportation and Human Health have been included in the assessment in Chapter 8: Human Health (Section 8.10 and Section 8.11) of the EIAR.

Biodiversity

Traffic during construction can result in accidental killing or injury of animals due to collisions with traffic. However, the increased road traffic during the construction phase will likely result in imperceptible changes to the rates of roadkill incidents.

During the operational phase, there is a risk of accidental killing or injury of animals due to collisions with traffic. The volumes of vehicles using the roads, traffic speeds, and the habitats through which the road passes are among the factors which influence the likelihood of roadkill incidents. In addition to roadkill, traffic will generate noise, vibration, and visual disturbance, which will cause disturbance to animals in the immediate vicinity, potentially displacing them from breeding, resting, foraging, or commuting habitat.

The impact of the interactions between Traffic & Transportation and Biodiversity have been included in the assessment in Chapter 9A: Biodiversity (Terrestrial) and Chapter 9B: Biodiversity (Aquatic) of the EIAR.

Land, Soil & Hydrogeology

Traffic during construction has been considered and assessed in terms of the movement of materials and the impact of accidental spillage on soils and groundwater during construction and road maintenance. Currently, the runoff from the existing road is untreated. During the construction phase, traffic density can have the potential to result in localised and small scale cumulative negative impacts on the Land, Soil & Hydrogeology environment within the study area. Traffic may result in increased fuel run-off and additional accidental spillages due to vehicle crashes.

During the operational phase, there is a risk of accidental spillage which could potentially cause surface water and groundwater contamination.

The impact of the interactions between Traffic & Transportation and Land, Soils & Hydrogeology have been included in the assessment in Chapter 10: Land, Soils & Hydrogeology of this EIAR.

Water

Traffic during construction has been considered and assessed. A comprehensive range of measures has been incorporated into the design and proposed construction methodology to control the sources and pathways of pollutant transport to watercourses during the construction phase of the Proposed Development

The operational phase effects on water quality and amenity value are long term imperceptible negative and not significant.

The impact of the interactions between Traffic & Transportation and Water have been included in the assessment in Chapter 11: Water of this EIAR, see Section 11.8.3 and Section 11.8.4.

Air Quality

Construction traffic can directly impact local air quality and sensitive receptors that are located adjacent to the road networks. The magnitude of impact of construction traffic is considered negligible, and the receptors are not considered sensitive.

During the operational phase, the main impact is envisaged to be operational traffic and its potential to impact the local area, the regional area, and identified ecosystems. The free flow of traffic within the Proposed Development will allow for lower concentrations of traffic related pollutants due to more steady speed driving.

The impact of the interactions between Traffic & Transportation and Air Quality have been included in the assessment in Chapter 12: Air Quality of this EIAR, see Section 12.6.

Climate

The level of emissions generated by traffic on the road network is largely dependent on the number of vehicles as well as the average tailpipe emissions from the vehicles. While the number of vehicles is influenced by the Proposed Development, the tailpipe emissions are dependent on external factors relating to the fuel mix of the national fleet. The Climate Action Plan (CAP) 2021 includes a target that 100% of all new cars and vans will be electric by 2030 and one third of all vehicles on the road will be electric or hybrid by 2030 with a view to full decarbonisation by 2050. CAP25 on Vehicle Kilometres, 20% reduction in total vehicle kms; 50% reduction in fuel usage; 50% increase in daily active travel journeys, 130% increase in daily public transport journeys and 25% reduction in daily car journeys. If this target is achieved there will be a gradual reduction in petrol/ diesel fuelled vehicles on the future network and an associated reduction in vehicle tailpipe emissions at source.

The impact of the interactions between Traffic & Transportation and Climate have been included in the assessment in Chapter 13: Climate of this EIAR, see Section 13.5.

Noise & Vibration

The construction methods, schedule and traffic volumes were used for modelling purposes. Increases of vehicles being introduced into the area has the potential to result in an increase in noise and vibration within the surrounding environs. The number of compounds and access points, routine traffic of construction workers and material deliveries will not exceed 20% of the Annual Average Daily Traffic (AADT). Most earthworks movements will be carried out using internal haul roads.

The impact of the interactions between Traffic & Transportation and Noise & Vibration have been included in the assessment in Chapter 14: Noise & Vibration of this EIAR, See Section 14.6.10, Section 14.6.11, Section 14.7.4 and Section 14.7.6.

Material Assets (Agriculture and Non-Agriculture)

Traffic during construction has been considered and assessed. Negative effects will arise from traffic during construction of the Proposed Development on agriculture and non-agriculture. During the construction phase, the increase in traffic has the potential to cause disruptions to agricultural traffic, with periods of harvesting crops (potatoes, cereals and grass) being considered most sensitive. Increased traffic during the construction phase has the potential to disrupt non-agricultural properties.

During the operational phase, there are no interactions identified.

The impact of the interactions between Traffic & Transportation and Material Assets (Agriculture and Non-Agriculture) have been included in the assessment in Chapter 15: Material Assets: Agriculture (see Section 15.7) and Chapter 16: Material Assets: Non-Agriculture (see Section 16.5) of this EIAR.

Landscape & Visual

During the construction phase, there will be additional traffic including heavy goods vehicles (HGV), which may give rise to short term visual impacts to other road users, pedestrians and residents within the surrounding environs.

During the operational phase, the traffic movement along the Proposed Development will result in a change to the surrounding landscape where it is a new introduction. As mitigation planting establishes the Proposed Development will integrate into the receiving landscape and traffic movement will be perceived as part of the local landscape character and is therefore not considered significant. Views from receptors during operational phase will be more significant at opening year and as mitigation planting establishes views of traffic movement will decrease and become in parts screened by vegetation that will decrease the likely significance.

The impact of the interactions between Traffic & Transportation and Landscape & Visual have been included in the assessment in Chapter 18: Landscape & Visual of this EIAR, see Section 18.6.2 and Section 18.6.3.

19.6.2 Population

As identified in Table 19-3, interactions between Population and the following factors have been identified and assessed: Traffic & Transportation, Human Health, Air Quality, Noise & Vibration, Material Assets (Agriculture and Non-Agriculture), Cultural Heritage and Landscape & Visual. The interactions of Population with Traffic & Transportation have already been assessed in the previous section and will not be repeated here.

Human Health

Population is intrinsically linked with Human Health, whereas impacts to health (positive or negative) affect the population receptors. Disruption during the construction phase has the potential to affect the health and wellbeing of the population and its general amenity. Adverse effects are identified in terms of general amenity, but no likely significant effects on public health are expected to arise.

During the operational phase, there are interactions in terms of community safety and socio-economic factors. The Population assessment has identified from the Traffic & Transportation assessment that improvements in safety will arise, which are expected to have positive effects (i.e. a reduction in road accidents, fatalities, serious injuries etc) (Section 8.10.3 of Chapter 8: Human Health). Likewise, positive effects are identified on the local economy, which should have positive effects on the socio-economic profile of the area (Section 8.10.4 of Chapter 8: Human Health). The Human Health assessment confirms such benefits to identified sub-groups of the local population.

Improvements to access to community facilities and recreational amenities benefit health and wellbeing and accordingly will have positive effects (Section 8.10.2 of Chapter 8: Human Health). Benefits to public health from improvements to active travel opportunities are identified as the main significant effect on Human Health arising from the Proposed Development and this is considered to be beneficial to Human Health.

The impact of the interactions between Population and Human Health have been included in the assessment in Chapter 8: Human Health of this EIAR (see above for specific chapter sections).

Air Quality

The Population assessment considered the technical outputs from the Air Quality assessment of the Proposed Development.

Construction of the Proposed Development will include activities such as site clearance, earthworks, temporary works, drainage works, pavement, road furniture (signage, etc.), Temporary Traffic Management (TTM), and lane closures. These activities will generate noise, dust and movement of machinery which will directly and indirectly impact the receiving population. Poor air quality due to dust could negatively impact population receptors at construction stage. The assessment for air quality identifies, at worst, slight negative effects on any individual receptor with mitigation in place.

During the operational phase, emissions from traffic are likely to affect population receptors. Traffic-related air emissions may generate air pollutants such as NO₂ and PM₁₀. Therefore, road traffic is considered the primary direct impact to air quality from the Proposed Development. The effects from air quality had identified as having beneficial effects in certain parts of the study area but monitoring is required at Dromboe Cottages in Section 1 where a slight adverse effect on residential receptors is identified.

The impact of the interactions between Population, Air Quality and Traffic & Transportation have been included in the assessment in Chapter 7: Population of this EIAR, see Section 7.4.2 and Section 7.4.3.

Noise & Vibration

Residential receptors, visitor accommodation and certain community facilities are considered as the most noise sensitive receptors within the scheme area and noise impacts have potential to reduce amenity or impact the operations of certain properties. Commercial facilities are considered less sensitive. During the construction phase, there will be some unavoidable adverse residual effects to population receptors, particularly residential properties, arising from construction noise notwithstanding mitigation measures, which

will be applied where practicable. Pre-construction surveys will be carried out as necessary with respect to vibration to ensure no adverse residual effects. Vibration monitoring is recommended at one church at Murlog.

During the operational phase, residential properties that meet TII guidance for mitigation are identified. Mitigation is not recommended in all cases as some of these properties will be acquired as part of the CPO for the Proposed Development, and in cases the provision of mitigation such as a noise barrier would be unsustainable where it would achieve only an imperceptible reduction in the modelled noise level. Where practicable however, mitigation has been recommended in the form of noise barriers, walls, low noise road surfaces, lower speed limits / traffic calming. Of over 4,500 properties assessed, just three noise sensitive residential receptors are identified whereby residual effects will be significant or worse. Two are within Section 1 (one is included for CPO) and the other is in Section 3. Those not being acquired are located at Dromboe (Section 1) and Ballynabreen west of Murlog (Section 3). Some mitigation measures are recommended for health and education facilities at Letterkenny (Section 2).

Overall, Chapter 14: Noise & Vibration concludes that the Proposed Development will result in a positive aggregate residual effect under the END Noise Mapping and the DMRB impact rating. This will result in beneficial environmental and health effects on the general population in the scheme area.

The impact of the interactions between Population and Noise & Vibration have been included in the assessment in Chapter 7: Population and Chapter 14: Noise & Vibration of this EIAR, see Section 7.4.2, Section 7.4.3, Section 14.6 and Section 14.7.

Material Assets (Agriculture)

The Population assessment identifies that 5.7% of Donegal's population and 4.9% of the population of the study area is employed within the 'Agriculture, forestry and fishing' sector. Impacts on the agricultural sector will contribute to interactive effects on the economy within the area, which is considered in the Population assessment. Unavoidably, there will be some disruption to farmers during construction stage as with any other local road users and there will be significant adverse effects to individual farms at operational stage. Notwithstanding same, the overall effect of the Proposed Development on the local economy is predicted to be positive.

The impact of the interactions between Population and Material Assets (Agriculture) have been included in the assessment in Chapter 15: Material Assets: Agriculture of this EIAR, see Section 15.7.

Material Assets (Non-Agriculture)

Land take can affect population whereby there is impact on residents, business operators, operators of community or tourist facilities and on landowners generally whereby demolition of resources can arise and / or reduction in the size of a landholding can have impacts on the viability or amenity of the property. The scale of these impacts varies depending on the nature of the use, and the nature and proportion of the land take. The assessment on land take (including demolition) is done on an individual property basis and considerations for the ongoing viability of individual uses arising from land take are included in those assessments in Appendix 16.01.

There is however an interaction whereby assessments of the potential impact of the Proposed Development on commercial properties, including information from consultation with landowners, is also likely to result in the loss of employment from a number of businesses whereby the effects of the land take cannot be absorbed. For example, there are a number of commercial buildings to be demolished that will result in closure if the businesses cannot relocate.

The impact of the interactions between Population and Material Assets (Non-Agriculture) have been included in the assessment in Chapter 7: Population of this EIAR, see Section 7.4.2 and Section 7.4.3.

Cultural Heritage

Structures of heritage value, such as Cavanacor House, Dunwiley Ringfort and the well at Holy Well woods, have a tourism and amenity value as they attract visitors to the area and provide points of interest and leisure destinations for the local community.

Construction works will be carried out close to Cavanacor House, a private dwelling that is active as an art gallery and artists' retreat occasionally. Cavanacor House will remain accessible during the works. Moreover, users of the Holy Well woods will experience very limited disturbance from construction activity during the construction period. The latter will benefit from enhanced access at operational stage, with a new access being provided to the woods where land take arises away from the well itself and from existing paths. Dunwiley Ringfort will benefit from an active travel link and from mitigation measures set out in the Cultural heritage assessment including new landscaping and provision of information panels. This will make these resources more accessible to the resident and visiting population.

Cultural Heritage interacts with Population via a potential impact on the Irish language. Although, the Proposed Development will not pass through the Gaeltacht in County Donegal, there is potential for some indirect effects to arise due to the strengthened connections within the wider vicinity of the Gaeltacht within County Donegal, which lies relatively close to the western part of the Proposed Development. There is potential that the Proposed Development will contribute towards strengthening its identity and stimulating economic activity through improved accessibility as offered by the Proposed Development.

The impact of the interactions between Population and Cultural Heritage have been included in the assessment in Chapter 7: Population of this EIAR, see Section 7.4.2 and Section 7.4.3.

Landscape & Visual

Landscape & Visual has included a detailed assessment of potential visual effects on sensitive receptors, including, residential receptors which are considered the most susceptible of the population receptors to visual changes. Those receptors commuting to or through or visiting an area are less sensitive to changes in this regard. There are 66 residential properties identified as having moderate to significant residual effects with respect to visual amenity post-mitigation. Importantly, no very significant to profound residual visual impacts on properties are identified. From an individual perspective adverse effects accumulate, however from a grouped community perspective the wider benefits of the Proposed Development to the receiving communities is considered to outweigh the same. Effects will reduce over time as the Proposed Development becomes established and as screening establishes. Residual effects for residential receptors (of a moderate to significant magnitude) generally arising from new bridge crossings, embankments and junctions, have been identified from viewpoints informing the LVIA and include:

- Section 1: Residential receptors in the Dunwiley and Cappry areas, and Drumboe Cottages.
- Section 2: Residential receptors at Ballyraine Park, Thorne Road, Trimragh, Dromore and at the L5784.
- Section 3: Residential receptors at Woodhill, Cavanacor House, Gallows Lane and Coneyburrow Estate (Lifford), Glenfin Park / Unery Road and Carmen Avenue / Unery Road Junction (Strabane), the N14/R236 junction, and along local roads (L1294, L2374, L2424) and the R264.

The impact of the interactions between Population and Landscape & Visual have been included in the assessment in Chapter 7: Population of this EIAR, see Section 7.4.2 and Section 7.4.3.

19.6.3 Human Health

As identified in Table 19-3, interactions between Human Health and the following factors have been identified and assessed: Biodiversity, Land, Soil & Hydrogeology, Air Quality, and Noise & Vibration. The interactions of Human Health with Traffic & Transportation and Population have already been assessed in the previous sections and will not be repeated here.

Biodiversity

There are no interactions identified between Human Health and Biodiversity during construction phase.

The provision of habitats and landscape planting in order to achieve no net loss to Biodiversity, as set out in the Biodiversity No Net Loss report, will improve quality of life through mental and physical health benefits, potential to improve water and air quality, provide noise reduction, and improve the landscape. Moreover, the availability of a natural environment and attractive views of nature within an individual's living environment are important contributors to physical activity. People's experiences in using the natural environment can enhance attitudes toward physical activity and perceived behavioural control via positive psychological states and stress-relieving effects, which lead to firmer intentions to engage in physical activity.

The impact of the interactions between Human Health and Biodiversity have been included in the assessment in Chapter 8: Human Health of this EIAR, see Section 8.11.

Land, Soil & Hydrogeology

Human Health identifies the economic benefit on humans as a result of construction works demand for inputs. In Land, Soil & Hydrogeology, the impact to economic geology is assessed in terms of the aggregate potential of the study area. The aggregate potential is moderate to very high for crushed rock aggregate and high for granular material; however, the likelihood of these resources being exploited to an economically viable scale is low to none.

Human Health determined that there were appropriate standard good practice mitigation measures to break any pollution linkage pathways that could pose a risk to Human Health in regard to Land, Soils and Hydrogeology.

There are no interactions identified between Human Health and Land, Soil & Hydrogeology during operational phase.

The impact of the interactions between Human Health and Land, Soil & Hydrogeology have been included in the assessment in Chapter 8: Human Health and Chapter 10: Land, Soils & Hydrogeology in regard to Hydrogeology mitigation measures and residual effects, see Section 8.10, and Section 10.7.

Air Quality

During the construction phase, there will be a combination of adverse air quality experienced by some communities. The combination of individual adverse effects may combine for some particularly vulnerable individuals. However, at the population level the potential for these effects to result in a significant public health effect is not a concern.

During the operational phase, there will be air quality changes. Some communities will experience beneficial effects and other communities will experience adverse effects. The combination of adverse changes in communities that are closer to the new route alignments are not expected to be at a degree that would result in significant adverse population health effects, although some localised individual level effects may be greater. Similarly, those communities experiencing a combination of beneficial effects are not expected to do so to an extent that would be significant in public health terms. Changes in the significance conclusions due to combined effects of the Proposed Development are therefore not expected.

The impact of the interactions between Human Health and Air Quality have been included in the assessment in Chapter 8: Human Health of this EIAR, see Section 8.10 and Section 8.11.

Noise & Vibration

During the construction phase, there will be an increase of noise emissions experienced by some communities, as well as localised disruption in access. However, at the population level the potential for these effects to result in a significant public health effect is not a concern.

During the operational phase, there will be noise emission changes. Some communities will experience beneficial effects and other communities will experience adverse effects. The adverse changes in communities that are closer to the new route alignments are not expected to be at a degree that would result in significant adverse population health effects, although some localised individual level effects may be greater. Similarly, those communities experiencing beneficial effects are not expected to do so to an extent that would be significant in public health terms. Changes in the significance conclusions due to combined effects of the Proposed Development are therefore not expected.

The impact of the interactions between Human Health and Noise & Vibration have been included in the assessment in Chapter 8: Human Health of this EIAR, see Section 8.10 and Section 8.11.

19.6.4 Biodiversity

As identified in Table 19-3, interactions between Biodiversity (both Terrestrial and Aquatic) and the following factors have been identified and assessed: Land, Soil & Hydrogeology, Water, Air Quality, Noise & Vibration, and Landscape & Visual. The interactions of Biodiversity with Traffic & Transportation, and Human Health have already been assessed in the previous sections and will not be repeated here.

Land, Soil & Hydrogeology

The construction phase will result in a loss of soil and increase of groundwater vulnerability in cut areas. This could impact flow to groundwater dependant ecosystems and groundwater chemistry could be impacted by runoff of contaminants. There is a low likelihood of groundwater dependency for all groundwater dependant terrestrial ecosystems, and none have been identified, based on the assessment of the underlying hydrogeology.

There are no interactions identified between Biodiversity and Land, Soil & Hydrogeology during the operational phase.

The impact of the interactions between Biodiversity and Land, Soil & Hydrogeology have been included in the assessment in Chapter 9A: Biodiversity – Terrestrial, Chapter 9B: Biodiversity - Aquatic and Chapter 10: Land, Soils & Hydrogeology of this EIAR, see Section 9A.5.3, Section 9B.5.3 and Section 10.7.

Water

There is potential for changes in water quality due to surface water drainage from the Proposed Development, accidental hazardous spillages, instream works, and similar activities. Adverse effects on water quality could directly and indirectly impact several European and National Sites, as well as otters and aquatic species, during both the construction and operational phases.

The impact of the interactions between Biodiversity and Water have been included in the assessment in Chapter 9A: Biodiversity - Terrestrial and Chapter 9B: Biodiversity – Aquatic of this EIAR, see Section 9A.5.3 and Section 9B.5.3.

Air Quality

The principal pollutants of concern which originate from road developments are the Nitrogen oxides (NOx) in terms of impact on sensitive ecosystems. NOx may have a negative impact by acting as a fertiliser or a phytotoxicant. Effects are mainly on vegetation growth, photosynthesis, and nitrogen assimilation/metabolism. There is predicted to be a slight adverse effect that is not significant during the operational phase.

Air Quality identifies the soiling effects of dust emissions in terms of the effect on vegetation as well as the potential impacts on sensitive ecosystems during the construction phase. Construction dust will result in adverse effects to sensitive ecosystems.

The impact of the interactions between Biodiversity and Air Quality have been included in the assessment in Chapter 9A: Biodiversity – Terrestrial and Chapter 9B: Biodiversity – Aquatic of this EIAR, see Section 9A.5.3 and Section 9B.5.3.

Noise & Vibration

Impact of noise & vibration on sensitive biodiversity sites were considered. It was assessed that there may be potential interaction between increases in noise with European Sites, National Sites, otters, bats and badgers during the construction phase.

Noise & Vibration is not likely to impact Biodiversity during the operational phase.

The impact of the interactions between Biodiversity and Noise & Vibration have been included in the assessment in Chapter 9A: Biodiversity – Terrestrial of this EIAR, see Section 9A.5.3.

Landscape & Visual

Existing habitats, such as hedgerows and woodlands, benefit both biodiversity and visual amenity. Therefore, the removal of existing habitats will result in both adverse biodiversity impacts and adverse landscape and visual impacts. However, the proposed landscape planting along the Proposed Development has been designed to deliver beneficial biodiversity impacts and landscape and visual impacts and will include significant areas of semi-natural habitats with native plant species.

19.6.5 Land, Soil & Hydrogeology

As identified in Table 19-3, interactions between Land, Soil & Hydrogeology and the following factors have been identified and assessed: Water, Air, Climate, Noise & Vibration, Material Assets (Agriculture and Non-Agriculture), Cultural Heritage and Landscape & Visual. The interactions of Land, Soil & Hydrogeology with Traffic & Transportation, Human Health and Biodiversity have already been assessed in the previous sections and will not be repeated here.

Water

The effects of water pollution have been considered and assessed in both Land, Soil & Hydrogeology and in Water. Both chapters identify the risk of the impact associated with mobilisation of suspended solids during construction, in operational road run-off and as a result of accidental spillage and during road maintenance as a potential risk. Water has the potential to interact with Land, Soils, Geology and Hydrogeology through the surface water/hydrological and groundwater/hydrogeological connection.

No planned construction activities have the potential to impact on groundwater quality. The unplanned activities which may impact the groundwater quality on site during the construction phase are:

- Accidental spillages of polluting materials on site.
- Release of fines into the groundwater.
- The potential for contaminated runoff to enter the groundwater.

If any of these unplanned events were to occur during construction, potential contamination of groundwater quality underlying the site and at receptors such as wells may occur. The excavation for cuttings will increase the vulnerability of the underlying aquifer.

There are unlikely to be any interactions between Water and Land, Soil & Hydrogeology during the operational phase.

The impact of the interactions between Land, Soil & Hydrogeology and Water have been included in the assessment in Section 10.7 in Chapter 10: Land, Soils & Hydrogeology and Section 11.8 in Chapter 11.

Air Quality

Air pollution can have a negative effect on groundwater and soil quality. Emissions from traffic is the primary source of NO_x emissions (38.6%), which can contribute to acidification of soil, altering soil properties which can in turn increase the mobility of dissolved metals leaching into groundwater.

The impact of the interactions between Air Quality and Land, Soil & Hydrogeology have been included in the assessment in Section 10.7 of Chapter 10: Land, Soils & Hydrogeology and Section 12.6 of Chapter 12: Air Quality.

Climate

Land use changes can have a significant bearing on the climate. This is due to the impacts on carbon sinks in the region. The disruption of peatland areas in the county will have a cumulative effect for decades as the land will no longer have the potential to sequester carbon over time. Soil removal has implications for climate change in terms of carbon sequestration and increased soil erosion.

The impact of the interactions between Land, Soil & Hydrogeology and Climate (excavation of soft soils and peat) have been included in the assessment in Section 10.7 of Chapter 10: Land, Soils & Hydrogeology and Section 13.5 of Chapter 13: Climate.

Noise & Vibration

Noise & Vibration used information regarding haulage of earthworks and the potential requirements for pilings. The construction phase of the Proposed Development will require movement of soils and rock breaking for excavation along the Proposed Development which will be an unavoidable consequence.

There are unlikely to be any interactions between Noise & Vibration and Land, Soil & Hydrogeology during operational phase.

The impact of the interactions between Land, Soil & Hydrogeology and Noise & Vibration have been included in the assessment in Section 14.6 of Chapter 14: Noise & Vibration.

Material Assets (Agriculture)

The construction phase of the Proposed Development will result in an impact to soil structure during the construction phase as a result of change in land use as result of land take and potential disruption to water supplies. Soil excavation can potentially result in disturbance to groundwater flow in the shallow subsoil (if encountered) and strain to existing subsoil structure. It is recognised that there will be a loss of land and soils that on a national, regional or local basis is not significant but on an individual farm perspective is potentially significant. The structure of soils within temporary construction and access areas will be potentially affected from being trafficked by construction vehicles. The potential to damage soil structures will become more pronounced when construction activities occur during wet periods.

There are unlikely to be any interactions between Material Assets (Agriculture) and Land, Soil & Hydrogeology during operational phase.

The impact of the interactions between Land, Soil & Hydrogeology and Material Assets (Agriculture) have been included in the assessment in Section 10.7 of Chapter 10: Land, Soils & Hydrogeology and Section 15.7.2 of Chapter 15: Material Assets: Agriculture.

Material Assets (Non-Agriculture)

Earthwork operations will generate soil, stone and other waste arisings as a result of excavation activities. Although unlikely, some contaminated ground and/ or hazardous material may be encountered during excavation and demolition works. Unsuitable excavated materials or wastes may arise from earthworks which cannot be reused in the Proposed Development.

There is the potential for there to be effects on groundwater and surface water from the Proposed Development and associated risks to local water supplies (e.g. wells) and water quality. Given that low yielding wells for domestic and farm water supply are relatively common in rural Ireland, it is almost inevitable that any large road project will result in at least a small number of low-yielding water supply wells having to be abandoned. Groundwater supplies will have to be abandoned where they lie on the path of the Proposed Development.

There are unlikely to be any interactions between Land, Soil & Hydrogeology and Material Assets (Non-Agriculture) during the operational phase.

The impact of the interactions between Land, Soil & Hydrogeology and Material Assets (Non-Agriculture) have been included in the assessment in Section 10.7 of Chapter 10: Land, Soils & Hydrogeology and Section 16.5.1 of Chapter 16: Material Assets: Non-Agriculture.

Cultural Heritage

During the construction stage, there is potential to reveal previously unknown archaeological finds and features. As part of the iterative design process, the Proposed Development has taken account of the impact on the recorded cultural heritage dataset, as well as cognisance of Areas of Archaeological Potential (AAP) identified throughout. For sub-surface recorded archaeological sites located adjacent the Proposed Development boundary, design provision for continued preservation of existing sub-surface soil environment conditions shall be ensured. Archaeological geophysical surveys and test-trenching took place as part of the design process at key identifiable areas adjacent to recorded archaeological site locations. For all remaining AAPs, a programme of advance archaeological investigations shall take place prior to construction stage earthmoving activities and/or vegetation clearance. This shall ensure preservation in situ and/or preservation by record of any presently unrecorded cultural heritage sub-surface features.

A spring/seep known locally as Holywell is located at the edge of the woodland at Holywell Woods in the townland of Drumboe Lower (Section 1). This is a holy well and a site of devotion. It has been subject to a focussed assessment due to its proximity to a large cutting which will intercept the water table and consequently alter the groundwater flow path feeding Holywell.

Given the high attribute importance of Holywell, the potential impact is assessed as indirect adverse effect. It is proposed to provide an alternative groundwater supply to Holywell from the same aquifer downstream of the cut. Assuming this alternative groundwater supply is commissioned – although there may be a temporary disruption of supply during the construction phase.

There are unlikely to be any interactions between Land, Soil & Hydrogeology and Cultural Heritage during the operational phase.

The impact of the interactions between Land, Soil & Hydrogeology and Cultural Heritage have been included in the assessment in Section 10.7 of Chapter 10: Land, Soils & Hydrogeology and Section 17.3.3 of Chapter 17: Cultural Heritage.

Landscape & Visual

Earthworks will affect the landscape of the surrounding area. Effects on Landscape & Visual occur as a result of earthworks in terms of embankments proposed. This interaction will have effects in the construction and operational phases for the Proposed Development.

The impact of the interactions between Land, Soil & Hydrogeology and Landscape & Visual have been included in the assessment in Section 18.6.2 of Chapter 18: Landscape & Visual.

19.6.6 Water

As identified in Table 19-3, interactions between Water and the following factors have been identified and assessed including: Air Quality, Material Assets (Agriculture and Non-Agriculture) and Cultural Heritage. The interactions of Water with Traffic & Transportation, Biodiversity and Land, Soil & Hydrogeology have already been assessed in the previous sections and will not be repeated here.

Air Quality

Air pollution can have a negative effect on water quality. Road transport is the primary source of NO_x emissions (38.6%), which can contribute to acidification of surface waters. Dust during construction can negatively affect water quality.

The impact of the interactions between Water and Air Quality have been included in the assessment in Section 11.8.3 of Chapter 11: Water and Section 12.6 of Chapter 12: Air Quality.

Material Assets (Agriculture)

Flooding of agricultural lands may result from severing or disturbing in-situ field drainage systems during construction. The impact of these interactions between Water and Material Assets (Agriculture) have been assessed in Section 15.7.2 of Chapter 15: Material Assets: Agriculture.

Material Assets (Non-Agriculture)

There will be an interaction between Water and utilities in regard to distribution of pipelines for potable water and any connections for water infrastructure (including foul and stormwater) with connections to receiving waterbodies.

In terms of waste, the disturbance or storage of contaminated made-ground during construction can lead to the release of chemical pollutants into the air, ground or water through remobilisation of contaminants. Where waste materials are not stored, handled, transported or managed correctly and where sewage associated with temporary site toilets is not managed appropriately there is the potential for the pollution of air, soil, groundwater and/or surface waters to occur.

The main potential impacts to Water from the operational and maintenance phase of the Proposed Development in relation to wastes will arise from road and constructed wetland/attenuation pond maintenance and landscape maintenance. The predicted characteristics of the impacts resulting from the operation of the road are considered low volume of maintenance wastes. It is envisaged that a high proportion of this material will be green, biodegradable waste.

With respect to land take, replacement wastewater treatment systems are provided for residential properties when existing systems are affected by the Proposed Development. This will ensure satisfactory treatment of domestic wastewater continues at those properties.

The impact of the interactions between Water and Material Assets (Non-Agriculture) have been included in the assessment in Section 11.8.3 and Section 11.8.4 of Chapter 11: Water and Section 16.5 of Chapter 16: Material Assets: Non-Agriculture (see also Appendix C16-01).

Cultural Heritage

For key sites that have a water-based context (e.g. holy wells) consideration has been given to the continued provision of existing hydrogeological water sources to such sites. Earthworks associated with the construction of the road in the vicinity of Holywell, where the mainline will incorporate cut, has the potential to alter the groundwater flow path feeding the spring, if the cut intercepts the water table.

The impact of the interactions between Cultural Heritage and Water have been included in the assessment in Section 17.3.3 and Section 17.3.4 of Chapter 17: Cultural Heritage.

19.6.7 Air Quality

As identified in Table 19-3, interactions between Air Quality and the following factors have been identified and assessed: Material Assets (Agriculture). The interaction between Traffic & Transportation, Population, Human Health, Biodiversity, Land, Soil & Hydrogeology and Water have already been assessed in the previous sections and will not be repeated here.

Material Assets (Agriculture)

Dust may cause nuisances to nearby farms and may cause eye irritation to livestock within proximity to the proposed works. Moreover, there may be negative effects to the value of crops (particularly products consumed raw such as fruits or salads) as a result of dust and other particulate matter depositions.

There are unlikely there to be an interactions between Air Quality and Material Assets (Agriculture) during the operational phase.

The impact of the interactions between Air Quality and Material Assets (Agriculture) have been included in the assessment in Section 15.7.2 of Chapter 15: Material Assets: Agriculture.

19.6.8 Climate

As identified in Table 19-3, interactions between Climate and the following factors have been identified and assessed: Material Assets (Non-Agriculture). The interaction between Traffic & Transportation and Land, Soil & Hydrogeology have already been assessed in the previous sections and will not be repeated here.

Material Assets (Non-Agriculture)

The generation of waste during the construction phase has potential for climate impact and the nature and scale of this impact depends on the type and volume of waste generated coupled with the nature of the waste treatment (reuse, recycling, recovery, or disposal). The largest waste streams for disposal are general wastes for unsuitable material, demolition wastes from the planned demolition of structures as well as soil.

It is unlikely there will be any interactions between Climate and Material Assets (Non-Agriculture) during the operational phase.

The impact of the interactions between Material Assets (Non-Agriculture) and Climate have been included in the assessment in Section 13.5 of Chapter 13: Climate.

19.6.9 Noise & Vibration

As identified in Table 19-3, interactions between Noise & Vibration and the following factors have been identified and assessed: Material Assets (Agriculture), Cultural Heritage and Landscape & Visual. The interaction between Traffic & Transportation, Population, Human Health, Biodiversity, and Land, Soil & Hydrogeology, have already been assessed in the previous sections and will not be repeated here.

Material Assets (Agriculture)

For the majority of agricultural enterprises, increased noise levels during the construction phase will have little or no effect, and animals will quickly acclimate to these construction noises. However, in certain agricultural contexts involving more sensitive species (e.g. poultry or horses) that exhibit heightened stress responses or pronounced 'fight or flight' behaviours, the effects of noise can be greater.

There are unlikely to be any interactions between Noise & Vibration and Material Assets (Agriculture) during the operational phase.

The impact of the interactions between Material Assets (Agriculture) and Noise & Vibration have been included in the assessment in Section 15.7.2 of Chapter 15: Material Assets: Agriculture.

Cultural Heritage

A comprehensive review of upstanding cultural heritage sites of a built heritage nature was undertaken in order to identify any potential interactions connected with rock blasting activities and subsequent potential vibration (stability) issues relative to same. Any identifiable Cultural Heritage structures at risk (within 50 m of works areas) shall be surveyed and recorded in advance of the construction phase, and actively monitored throughout the construction phase with reference to the initial baseline survey data.

For key cultural heritage sites where rural locations contribute to the overall character and setting, provision of noise barrier solutions in certain instances has been considered. However, it has been determined that no Cultural Heritage locations are likely to require such noise barrier interventions.

There are unlikely to be any interactions between Cultural Heritage and Noise & Vibration during the operational phase.

The impact of the interactions between Cultural Heritage and Noise & Vibration have been included in the assessment in Section 17.3.3 and Section 17.3.4 of Chapter 17: Cultural Heritage.

Landscape & Visual

Noise & Vibration has the potential to interact with Landscape and Visual due to the implementation of noise mitigation measures such as screening bunds/ berms and/or noise barriers. Specific noise attenuation measures proposed will not result in landscape or visual effects as they are well screened from sensitive visual receptors with existing vegetation or proposed screen woodland.

The impact of the interactions between Landscape & Visual and Noise & Vibration have been included in the assessment in Section 18.6 of Chapter 18: Landscape & Visual.

19.6.10 Material Assets (Agriculture)

As identified in Table 19-3, the interaction between Material Assets (Agriculture) and the following factors have been identified and assessed: Material Assets (Non-Agriculture) and Landscape & Visual. The interaction between Traffic & Transportation, Population, Land, Soil & Hydrogeology, Water, Air Quality, Climate and Noise & Vibration have already been assessed in the previous sections and will not be repeated here.

Material Assets (Non-Agricultural)

In cases, there is land take from properties that have both agricultural and non-agricultural land uses. These interactions are identified in the land take tables within Section 16.5.1 of Chapter 16: Material Assets: Non-Agricultural.

Landscape & Visual

The alteration to the existing agricultural landscape and its features has potential for an effect to occur to Landscape & Visual. The changes to Material Assets (Agriculture) have been assessed and the predicted residual landscape effects are detailed within Landscape & Visual.

The impact of the interactions between Material Assets (Agriculture) and Landscape & Visual have been included in the assessment in Section 18.6 of Chapter 18: Landscape & Visual.

19.6.11 Material Assets (Non-Agriculture)

As identified in Table 19-3, interactions between Material Assets (Non-Agriculture) and the following factors have been identified and assessed: Cultural Heritage and Landscape & Visual. The interaction between Traffic & Transportation, Population, Land, Soil & Hydrogeology, Water, Climate, and Material Assets (Agriculture) have already been assessed in the previous sections and will not be repeated here.

Cultural Heritage

There is land take from the Holywell woods which contains a holy well. The well itself is not included within this area and access will remain.

The impact of the interactions between Material Assets (Non-Agriculture) and Cultural Heritage have been included in the assessment in Section 16.5 of Chapter 16: Material Assets: Non-Agriculture (see also Appendix C16.01) and Section 17.3.3.1 of Chapter 17: Cultural Heritage.

Landscape & Visual

The alteration to existing utilities such as overhead lines (OHL) on the site and any new OHLs has potential for an effect to occur to the landscape and visual of the surrounding area. As far as practicable utilities will be underground and not visible. Should any OHL be required it will blend within the existing OHL and the Proposed Development and not be easily discernible.

In terms of waste, the operational and maintenance phase of the Proposed Development includes maintenance of the constructed wetland/attenuation pond and landscaping. The predicted impacts are considered negligible due to the expected low volume of maintenance wastes. Furthermore, it is envisaged that a high proportion of this material will be green, biodegradable wastes in nature.

With respect to land take, embedded mitigation includes for the making good of lands returned following temporary land take, and for the provision of new boundary fencing in areas where necessary, arising from permanent land take. There is an interaction with the landscape and visual assessment in those instances given the requirement for example, of seeding and planting in areas.

The impact of the interactions between Material Assets (Non-Agriculture) and Landscape & Visual have been included in the assessment in Section 16.5 of Chapter 16: Material Assets: Non-Agriculture (including Appendix C16.01 with respect to land take) and Section 18.6 of Chapter 18: Landscape & Visual.

19.6.12 Cultural Heritage

As identified in Table 19-3, interactions between Cultural Heritage and Landscape & Visual have been assessed. The interaction between Population, Land, Soil & Hydrogeology, Water, Noise & Vibration and Material Assets (Non-Agriculture) have already been assessed in the previous sections and will not be repeated here.

Landscape & Visual

A strategic planting programme shall be provided as part of the Landscape & Visual mitigation measures for the Proposed Development. This shall also have an inter-relationship with key cultural heritage sites by creation of a screening effect (thereby reducing indirect negative impact) for the visual appreciation of the character and setting of key cultural heritage sites. In addition, improved access provision to key sites of existing amenity value has been incorporated into the interactive design via landowner consultations and project commitments.

Developments can sometimes infringe upon the amenity use and visual setting of an archaeological or architectural heritage feature and as a result lead to unacceptable impacts. The NIAH commissioned a survey of historic gardens and designed landscapes and a review of the historic gardens and designed landscapes records held by NIAH has identified 127 such records for Donegal County, three of which fall within the study area associated with Section 3 of the Proposed Development. No records are located within the study area for Sections 1 or 2. The LVIA has established that due to screening and separation distance no significant effects are predicted for any historic garden or designed landscape. No significant interaction or in combination effects are predicted as a result.

The impact of the interactions between Cultural Heritage and Landscape & Visual have been included in the assessment in Section 18.6.5 of Chapter 18: Landscape & Visual.

19.6.13 Landscape & Visual

As identified in Table 19-3, interactions of Landscape & Visual with Traffic & Transportation, Population, Biodiversity, Land, Soil & Hydrogeology, Noise & Vibration, Material Assets (Agriculture and Non-Agriculture) and Cultural Heritage have already been assessed in the previous sections and will not be repeated here.

19.6.14 Summary of Interactions

With the implementation of the proposed mitigation measures outlined in Chapter 6 to Chapter 18 of this EIA, it is considered unlikely that the potential interactions between the environmental disciplines will result in significant adverse effects.

19.7 CIA Stage 1 – Desk Study

The Stage 1 desktop assessment identified over 1,000 projects/developments/activities within 5 km of the Proposed Development. This list is provided in Appendix C19.01. The projects are described under several headings as follows:

- **Planning Authority:** This is the consenting authority to which this project has or will be submitted to.
- **Application Number:** This is the reference number given to the project by the given consenting authority.
- **Development Description:** This is the description of the project as given in the planning application.
- **Development Address:** This is the address of the project as given in the planning application.
- **Application Status:** The status of the application as labelled by the consenting authority. The labels are described as follows:
 - **PRE-PLANNING PHASE:** The project is in the process of preparing their planning application and have not yet received an application number from the consenting authority.
 - **PLANNING STAGE, PREAPPLICATION:** The project is in the process of preparing their planning application and have received an application number from the consenting authority.
 - **APPLICATION FINALISED:** The application has been submitted to the consenting authority and its awaiting decision.
 - **FURTHER INFORMATION:** The consenting authority has requested and is awaiting receipt of further information from the applicant to reach their decision.
 - **APPLICATION FINALISED:** The application has been submitted to the consenting authority and its awaiting decision.
 - **APPEALED:** The decision made by the consenting authority is currently under appeal or judicial review.
 - **WITHDRAWN:** The applicant has withdrawn the application prior to receiving a decision from the consenting authority.
 - **INCOMPLETED APPLICATION:** The consenting authority has deemed the application incomplete.
 - There is one project (at Windyhall Road, PR92) that is at the planning, preapplication stage but is planned to be submitted in Q1 of 2026, as defined in this column.
- **Application Type:** What the applicant is seeking; **Permission** to construct, **Retention** of infrastructure or **Extension of duration** of the planning window.
- **Decision:** This is the decision label as given by the consenting authority. The different authorities use varying labels which are listed below:
 - **Conditional:** Planning permission granted provided the development follows conditions as set by the authority (ACP, DCC).
 - **Unconditional:** Planning permission granted with no conditions set by the authority (DCC, NI)
 - **Granted:** Planning permission granted with no conditions (ACP) or provided the development follows conditions as set by the authority (NI).
 - **In Progress:** Decision has not yet been made on the final permissions granted to the project by the consenting Authority (NI only).
 - **On Hold:** The decision process is on hold due to the applicant preparing a Response to Further Information (DCC only).
 - **Refused:** The consenting authority has refused permission to the development (ACP, DCC and NI).
 - **N/A:** The application has not yet been submitted to the consenting authority, has been withdrawn, or deemed incomplete by the consenting authority.
- **Screened in:** All projects and developments screened in for the CIA assessment are denoted with a **Yes**, and those screened out have been denoted with a **No**.
- **Project Reference Number:** The number by which each project and development are referenced within Chapter 19, to which this is appended, for discussion.

19.8 CIA Stage 2 – Project Screening

Each topic specialist carried out a screening exercise on the list of projects compiled during Stage 1 to identify projects with potential to produce a cumulative impact with the Proposed Development. The screening has been carried out in accordance with the screening criteria defined in Table 19-1. This Stage 2 ‘short-list’ of projects is provided in Appendix C19.02.

19.9 CIA Stage 3 – Detailed Assessment

The impact assessment (Stage 3) considered the likely significant cumulative impacts of the projects screened in during Stage 2 and listed in Appendix C19.02 together with the Proposed Development.

The following types of projects and developments were considered to have potential for significant cumulative impact:

- Road projects
- Active travel development
- IPC licences
- Industrial emissions licences (IEL)
- Utilities (Water/Wastewater, Energy, Waste, Telecommunications)
- Flood projects
- Planning applications
- Other projects and development

The list of projects and developments includes those that are:

- Operational
- Under construction.
- Consented (permitted) but not yet implemented.
- Submitted but not yet determined (i.e. in planning or other consent application process).
- Likely to be submitted for planning (as identified by Donegal County Council).

The Proposed Development is estimated to have a five-year construction period commencing in 2027. Conservatively, the CIA assumed that all screened-in projects could potentially be constructed in the same 2027-2032 window.

Please note that the project denoted as PR1 is the A5 Western Transport Corridor (WTC) including a proposed Trunk Road T3 with the N14/N15 to A5 Link as listed in Appendix C19.01 and has been assessed as a whole.

19.9.1 Traffic & Transportation

Chapter 6: Traffic & Transportation considered the likely significant cumulative effect of projects within the extent of the wide area traffic model. This area was demarked by the Proposed Development boundary.

The following projects were screened in for likely significant cumulative effects on Traffic & Transportation. These projects are at various stages of planning. Whilst these projects could involve construction around the same period as the Proposed Development with potential to cause disruption to traffic, they primarily complement the Proposed Development as they are mostly active travel schemes that will increase non-motorised travel.

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigan’s to Lifford Greenway and Castlefin and Foyle Valley Greenway Link
- **PR4-** LK Green Connect
- **PR5-** Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge (HA05E.311468)
- **PR6-** Station Road, Lifford- Community Park

- **PR7-** N15 Corcam Bends Active travel and road realignment
- **PR11-** Lettergull Windfarm
- **PR64-** N15 Cappry (Cappry to Ballbofey Speed Limits)- active travel scheme
- **PR65-** Mill Brae, Stranorlar active travel scheme
- **PR66-** Twin Towns Old Railway Line Cycleway

There are other projects such as Letterkenny Active Travel Projects (PR69-PR75) and housing development sites that are screened out as they have been assessed and considered as part of the baseline in terms of the travel demand growth. These projects have been screened out because most of them have either been built or are due to be built before the Proposed Development (e.g., Kilmacrennan Road scheme is due for completion in Autumn 2026) or are minor schemes with no potential to have any significant cumulative impacts.

A sensitivity test was undertaken on the traffic and transport impacts of the A5 WTC (PR1). The provision of PR1 will impact mainly on Section 3 and will likely reduce the amount of strategic traffic travelling through Lifford / Strabane. This is considered a positive effect. The N14/N15 to A5 Link, including a proposed Trunk Road T3, connecting Section 3 of the Proposed Development with the A5 WTC will, cumulatively, improve journey times, increase accessibility to amenities as well as the safety for road users. It is a permanent, **likely significant positive impact** over the long-term.

The active travel schemes: Barnesmore Gap greenway project (PR2); the N15 Corcam Bends (PR7); the N15 Cappry to Balleybofey speed limits (PR64); Mill Brae- Stranorlar (PR65) and Twin towns Old railway line cycleway (PR66); when implemented will enhance connectivity with Section 1 of the Proposed Development. The cumulative impact will likely lead to increased active travel usage with potential to shift people away from cars for short distance travel. This is a **likely significant positive impact**.

No potential significant cumulative impacts were identified for Carrigans to Lifford Greenway and Castlefin and Foyle Valley Greenway Link (PR3).

No potential significant cumulative impacts were identified for LK Green connect (PR4).

No potential for likely significant cumulative impacts was identified for Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge (PR5 and PR6) due to its location north of the existing crossing across River Foyle.

The Lettergull wind farm (PR11) is unlikely to have any significant cumulative impacts following consultations to ensure there is no conflict with the Proposed Development, and both projects can be constructed in accordance with their respective approvals.

19.9.1.1 Cumulative Effect of all Screened in Projects

Overall, when considered collectively, the foregoing projects together with the Proposed Development are likely to have **slightly positive cumulative impacts** on traffic and transportation with reduced travel times with PR1 and enhanced active mode connectivity, which is likely to increase non-motorised travel and potential to shift people away from cars.

In the unlikely event that all the above projects are constructed simultaneously, then the potential for adverse cumulative impact is considered **moderate** with some potential for **slight adverse cumulative effects** where works disrupt existing travel corridors. Appropriate phasing, co-ordination and communication by the Contractor in agreement with DCC and careful liaison by DCC Roads Department with internal project leads and external developers (particularly with respect to Traffic Management Plans), is expected to occur in line with best practice thus lessening the effect.

19.9.2 Population

Chapter 7: Population considered where the Proposed Development passed through rural settlements and urban areas when examining the potential for significant cumulative effects. The ZoI for potential projects was not based on a set distance from the extent of the Proposed Development but rather based on the nature and scale of the individual projects being considered on a case-by-case basis.

The type of impacts being considered include those arising from projects that might involve substantial construction works at a similar time within a local area that could exacerbate disturbance and disruption for population receptors. Impacts at operational stage were those that might affect the continued operation or amenity of a population receptor.

There were active travel projects with potential for **positive cumulative impacts** (for example planned greenways that intersect with proposed active travel measures that will enhance the beneficial effects to Non-Motorised Users (NMUs) and to tourism). These include:

- **PR69-PR75-** Letterkenny Active Travel Projects
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigans to Lifford Greenway and Castlefin and Foyle Valley Greenway Link
- **PR4-** LK Green Connect
- **PR5-** Station Road Lifford Community Park and Pedestrian / Cycle Bridge
- **PR66-** Twin Towns Old Railway Line Cycleway
- **PR7-** N51 Corcam Bends Active Travel and Road Realignment
- **PR68-** Northern Network Project – Active Travel
- **PR64-** N15 Cappry to Ballybofey Speed Limits – Active Travel Scheme

These projects are proposed to be progressed by DCC and the programming of works at construction stage will therefore be managed with cognisance of the programme for the Proposed Development to avoid significant cumulative effects at construction phase. It is also possible that some of these projects may not be consented, or in the event that consent is approved, that they will be completed prior to the commencement of works on the Proposed Development. The same considerations apply to other local authority projects including housing development in the vicinity of the Proposed Development, that are at pre-planning stage.

Most of the flood relief projects identified for screening are considered to have a **positive effect** on Population, with flood risk already considered within this EIAR. Should these schemes be progressed for consent, it is reasonable to assume that they will take account of the Proposed Development. One consented scheme (the Ballybofey-Stranorlar Flood Relief Scheme (FRS)) was considered for potential cumulative impact; however, works will occur behind existing embankments with minimal change to the existing environment in relation to Population. These works are considered small and temporary in scale, with no potential significant cumulative effect with respect to Population.

Other developments were screened out for further assessment for potential likely significant cumulative impacts on the basis of distance from the Proposed Development. For example, IPC/IEL Licensed Industries, the Glenmore Estate – Biogas Plant and Biogas Renewable Energy Facility (ABP 317749) do not have spatial overlap with the Proposed Development. Furthermore, these are regulated by the Environmental Protection Agency (EPA) with respect to emissions.

There are extant permissions within the vicinity of the Proposed Development for a number of dwellings and/or dwelling extensions, agricultural and commercial developments, which are on discrete sites. These are considered standard in nature and typical of expected activity in a study area that includes three substantive urban settlements with a rural hinterland. These projects have been considered in terms of location, the nature of the works required to construct, and the remaining time allocated for construction under the duration of permission in the context of potential construction stage impacts. None of the individual developments themselves will result in significant impacts on the receiving communities and have **no potential to give rise to any significant cumulative impacts** with respect to population aspects of the receiving environment.

The following projects were screened in for likely significant cumulative effects on Population:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR11-** Lettergull Wind Farm
- **PR12-** Letterkenny Water Supply Zone Upgrade
- **PR21-** 110kV Substation at Listellan (south of Lurgybrack).

- **PR63**- ABP No. 317354- Bulk LPG Filling Facilities at Bunagee
- **PR29**- ABP No. 2350662- IDA Business Park
- **PR33**- DCC Pl. Reg. Ref. 25/60772 - Student accommodation at Ramelton Road

The proposal to connect Section 3 with the A5 WTC via a proposed Trunk Road T3 (PR1) will improve: general connectivity of settlements, journey times in the border area, access to amenities and safety for road users within the population grouping. This is considered to be a permanent, **significant positive impact** in the long-term.

Should both schemes be constructed simultaneously, there is potential for cumulative adverse effects on population receptors due to journey delays and traffic disruption. Should construction timelines overlap, potential effects can be managed by providing for appropriate phasing and co-ordination of the Proposed Development. Any such effects are not expected to be significant.

Lettergull Wind Farm (PR11) is screened in for further consideration as it has potential temporal overlap with the Proposed Development (given that it has a ten-year planning permission) and the grid connection intersects the proposed works. The proposed wind farm itself is not large in scale (6 no. turbines) and the grid connection intersection is localised with design proposals to accommodate same. Given the foregoing, cumulative adverse effects are not considered likely to be significant and no further assessment is considered necessary.

The Letterkenny Water Supply Zone Upgrade may have possible construction phase overlap, temporally and spatially, in the Lurgybrack area. This may increase disruption for Population receptors but liaison between the project teams will minimise disruption. The cumulative effect is expected to be **slight** and localised and no further assessment is considered necessary.

An extension to the 110kV substation is proposed to be constructed south of Lurgybrack (PR21). There is potential for some likely significant cumulative impacts if PR21 is constructed at the same time as works are ongoing on Section 2 of the Proposed Development closest to Lurgybrack. This case is yet to be decided. Any conditions are unknown at this stage but likely to include for management measures for the construction process. The potential that cumulative impacts would be significant is unlikely.

There are potential significant cumulative effects during construction of the Bulk LPG Filling Facilities (PR63), given the nature of access to the LPG storage site. Appropriate phasing and coordination management through the projects' Environmental Operating Plans (EOPs) and other site construction plans (SCP), particularly regarding construction access, will reduce potential impacts to **slight** and localised.

There are likely cumulative effects from demolition, traffic, etc. from construction of the IDA Business Park (PR29). With mitigation and liaison between project teams and managed within EOPs and SCPs, significant impact is unlikely.

Disruption from construction traffic may arise from the development of student accommodation at the Ramelton Road (PR33), whereby a junction to tie the proposed new road into the existing national road at Ballyraine will require works. With mitigation and liaison between project teams and managed within EOPs and SCPs, significant impact is unlikely.

All the foregoing projects are subject to conditions, which will reduce the magnitude of effect.

19.9.2.1 Cumulative Effect of all Screened in Projects

When the foregoing projects are considered collectively with the Proposed Development, **no significant** operational stage cumulative impacts are anticipated to Population receptors.

At construction stage the potential for heightened cumulative effect arises in a scenario where there are works ongoing close to Lurgybrack (Section 2) at a similar time to those required for the Letterkenny Water Supply Scheme and the extension to the substation. However, given that road opening consents will be required for water main works and traffic management plans are now standard practice (with input from local authority roads departments), it is reasonable to expect that such a scenario will not arise, particularly as these works are on and close to a national road serving a regional level settlement.

On the whole, should all of the above projects be constructed simultaneously with the Proposed Development, then the potential for cumulative impact is considered **moderate adverse** at worst for localised receptors predominantly. There is also potential for **slight adverse** cumulative effects on longer distance travel in and through the study area. Appropriate phasing, co-ordination and communication by the Contractor in agreement with DCC and careful liaison by DCC Roads Department with internal project leads and external developers, particularly with respect to Traffic Management Plans is expected to occur in line with best practice thus lessening the effect. With these mitigations, **no likely significant** cumulative impacts are expected.

19.9.3 Human Health

Chapter 8: Human Health considered projects and developments that relate to the different health determinants assessed as part of the human health assessment (Traffic & Transport, Population, Air Quality, Noise & Vibration and Landscape & Visual).

The ZOI for potential impacts is defined by the study area used for each of the health determinants of the human health assessment and has regard to the topic specific study areas defined by the other EIA technical assessments that inform the health assessment.

The type of impacts considered include those arising from projects that have substantial temporal and spatial overlap with the Proposed Development, for example construction phase overlap that can exacerbate (albeit temporarily) disruption to nearby receptors such as residents and users of community assets. Cumulative impacts are also considered for projects that will introduce a substantial amount of new health receptors (most commonly residents) to the area, for example residential developments.

The following projects were screened in for potential cumulative effects on Human Health:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigan's to Lifford Greenway and Castlefin and Foyle Valley Greenway Link
- **PR68-** North Network Active Travel Project
- **PR66-** Twin Towns Old Railway Line Cycleway
- **PR7-** N51 Corcam Bends Active Travel and Road Realignment
- **PR12-** Letterkenny Water Supply Zone Upgrade
- General residential developments
- **PR92-** Windyhall Residential development
- **PR93-** SSDS Site, Letterkenny (PP26006)

In the event that the A5 WTC and the A5 link (Trunk Road T3) (PR1) are consented, the Proposed Development together with (PR1) would have a **positive** cumulative effect in terms of reduction in journey times. The operational impact of the Proposed Development alone on the 'transport modes, access and connections' health determinant is concluded to result in a **moderate beneficial** (significant) effect in Chapter 8: Human Health. The cumulative impact of the Proposed Development together with PR1 is not considered to be of a scale that would change this significance ranking, but would remain significant **beneficial**. There is also the potential for temporal overlap of the construction of both these schemes, that could result in adverse construction noise and dust changes. However, it is assumed that best practice construction measures will be undertaken and managed by appropriate construction management plans, and therefore, these effects are not anticipated to be greater or different than the individual assessment conclusions for the Proposed Development in Chapter 8: Human Health.

During operation, the greenways and active travel projects listed above will provide increased opportunities for physical activity and access to open space and recreation if progressed, as well as providing better connections between communities along the Proposed Development and the wider area. Given that operational impacts of the Proposed Development alone on the 'open space, leisure and play' health determinant are already assessed to be significant beneficial, the cumulative beneficial effects of the Proposed Development and the projects identified above (although it will give rise to a cumulative benefit), is not anticipated to be of a scale that would change the significance rating assigned to the individual effects in Chapter 8: Human Health. Therefore, the effect remains **moderate beneficial** which is significant in EIA

terms. There may be adverse impacts in terms of temporary loss of access to recreational opportunities during construction. Due to the temporary nature of these disruptions, assuming that appropriate mitigation and alternatives will be provided, the cumulative adverse effects are **not anticipated to be significant** at the population level.

There is potential for temporal overlap of the construction phase of the Letterkenny Water Supply Zone Upgrade (PR12), if consented. Assuming this is the case (as a worst-case scenario), there is potential for temporary disruption to nearby health receptors in Section 2, from construction noise, dust and transport changes. Due to the scale and nature of disruption, and assuming that best practice construction measures will be undertaken and managed by appropriate construction management plans, this is not anticipated to be significantly different from the individual assessment conclusions in Chapter 8: Human Health. Therefore, the cumulative effect remains **minor adverse** which is **not significant**.

There are existing permissions within the vicinity of the Proposed Development for a number of dwellings and / or dwelling extensions, which have potential to increase the local population. Any new community members arising from these potential developments will be affected by the cumulative construction and operational impacts that will affect the existing community (i.e. the cumulative impacts described in the paragraphs above). However, these cumulative impacts are not anticipated to be significantly greater than the individual impacts of any potential additional/ enlarged dwellings. There is also the potential that not all of these developments will be consented, or in the event that consent is approved, that they will be completed prior to the commencement of works on the Proposed Development.

With regard to the residential developments at Windyhall, Letterkenny (PR92) and the Lands at SSDS Site (PR93), Letterkenny; if these developments are permitted, they will give rise to an increase in population in the communities near the Proposed Development. It is anticipated that the resulting increases to the traffic flow in the local road network can be accommodated by the operation of the Proposed Development. Therefore, **no significant cumulative impacts** to population health are anticipated.

There is potential for temporal overlap of the construction phases of these schemes and the Proposed Development. Assuming this is the case (as a worst-case scenario), there is potential for temporary disruption to nearby health receptors in Section 2, from construction transport changes. Assuming best practice measures are in place using appropriate construction management plans, and due to the temporary nature of these changes, this is not anticipated to be significantly different from the individual assessment conclusions in Chapter 8: Human Health. Therefore, the cumulative effect remains **minor adverse** which is **not significant**.

19.9.3.1 Cumulative Effect of all Screened in Projects

Cumulative impacts from all the committed schemes identified at CIA Stage 2 with the Proposed Development have the potential to influence population health. The cumulative effects of these projects are noted, but due to their diffuse effects within the wider population they are unlikely to result in new or materially different significant population health effects. At most there is considered to be the potential for **minor adverse (not significant) effects** from concurrent or sequential disruption and disturbance.

The above infrastructure projects together with the Proposed Development has potential for **minor adverse** cumulative population health impacts from construction and **minor to moderate beneficial** population health impacts from operation.

19.9.4 Terrestrial Biodiversity

The cumulative effects assessment completed for Chapter 9A: Terrestrial Biodiversity considered projects with regards to the identified Important Ecological Feature (IEF) species and habitats, identified within the study area, as set out in Chapter 9A: Terrestrial Biodiversity.

Projects were considered on a case-by-case basis for screening in or out of the Terrestrial Biodiversity CIA based upon the source- pathway- receptor conceptual model, the spatial/ temporal scales involved, data confidence, and receptor sensitivity. Given the significant geographical scale involved, a robust scoping exercise was carried out to identify only those projects with potential for likely significant cumulative effects on the IEF terrestrial receptors in combination with the Proposed Development.

The type of impacts being considered include those arising from projects that might involve substantial construction works at a similar time within a local area that could exacerbate deterioration and disturbance for IEF species and habitat receptors; or at operational stage might affect the continued functionality of a habitat or ability of a species to maintain its conservation status.

Projects were screened out when:

- They had received permission already and were likely to have completed construction in advance of the Proposed Development commencing, where the application NIS and environmental reporting found no adverse effect on the designated sites or species that were identified as IEFs for the Proposed Development.
- They were shared no hydrological connection or very tenuous pathways that could reasonably have potential for cumulative effects.
- They were in locations, or of a scale where works required little earthworks during construction such as in urban or industrial areas in existing hardstanding.
- Potential for significant cumulative disturbance effects was screened out for projects that were at a distance (i.e. over 500 m from likely IEF receptors identified for the Proposed Development) where likely significant cumulative disturbance effects from construction could be ruled out. 500 m was determined based on a threshold of construction and operational noise of 50 dB $L_{Aeq, 24hr}$ below which it is anticipated that it will have no disturbance effect (Cutts, et al., 2009).

There are extant permissions within the vicinity of the Proposed Development for a number of dwellings or extensions, agricultural and commercial developments, which are on discrete sites, are considered standard in nature and typical of expected activity in a study area that includes urban settlements with a rural hinterland. These have been considered in terms of location, the nature of the works required to construct same, and the remaining time allocated for construction under the duration of permission in the context of potential construction stage impacts. None of the individual developments themselves will result in significant impacts on the receiving environment and have **no potential to give rise to any likely significant cumulative impacts** with respect to terrestrial biodiversity given their nature and scale.

It should be noted that of the projects not yet submitted for planning approval (e.g., flood relief schemes) it is reasonable to assume none of these will have permission granted unless the individual project incorporates design, best practice and bespoke measures to mitigate likely significant effects identified for those projects which includes, at a minimum, best practice construction phase mitigation and protection measures to protect habitats and species in line with industry guidelines. Therefore, for these projects it is taken that these standards will be incorporated.

The following projects were screened in for potential significant cumulative effects on Terrestrial Biodiversity:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigans to Lifford Greenway Castlefin and Foyle Valley Greenway Link
- **PR4-** LK Green Connect
- **PR5-** Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge (HA05E.311468)
- **PR7-** N15 Corcam Bends Active Travel and Road Realignment
- **PR14-** Lifford Flood Relief Scheme
- **PR15-** Balleybofey and Stranorlar Flood Relief Scheme
- **PR16-** Raphoe Flodd Relief Scheme
- **PR17-** Castlefinn Flood Relief Scheme
- **PR63-** ABP No317354 Bulk LPG Filling Facilities at Bunagee
- **PR18-** Buildings and Sewage Treatment Plant
- **PR19-** Warehouse Storage Facility
- **PR55-** 25 No. Dwellings - Ramelton Rd

The A5 WTC inclusive of Trunk Road T3 (PR1) is linked to the Proposed Development by the N14/N15 to A5 Link and therefore close hydrological connectivity exists as well as a spatial overlap. Cumulative effects downstream from suspended solids (sediment, hydrocarbons, concrete) could occur during the construction phase; however, given the flow in the River Finn and River Foyle and the tidal nature of the river upstream and downstream of the Proposed Development, any the effect will quickly disperse and be of a limited and relatively short duration. Therefore, although there may be periods where temporary increases are present due to simultaneous construction periods the concentrations may not be measurable above background levels given the nature of the watercourse in this location. The potential effect would **not be significant** in EIA terms.

The Barnesmore Gap Greenway (PR2) is still in the design stage, and it is likely that the design of the scheme will take into consideration the design of the Proposed Development. However, applying the precautionary principle and assuming a direct overlap in the construction phases of the two schemes together there is a potential for cumulative increase in water borne pollutants (sediments) that could have likely significant cumulative effects on the River Finn SAC for fisheries habitat impacts and a knock on to otter populations. However, mitigation measures have been proposed as set out in Section 19.9.5 below that the construction phase of the Proposed Development will be programmed to ensure that these overlaps in construction do not occur. This is a practicable restriction that can be incorporated into the construction schedule for the Proposed Development which will avoid, prevent and result in **no likely significant cumulative effects** on the receiving terrestrial flora and fauna.

The Carrigans to Lifford Greenway (PR3) is still in route option phase, but the route chosen will have close hydrological connectivity with the works in Section 3 of the Proposed Development. Therefore, there is potential for cumulative increases in water borne pollutants if the construction phases of both projects overlaps. However, as mentioned above it is expected that any project coming forward would be required to include best practice and bespoke measures to mitigate any likely significant effects during construction that would limit the effects to not significant. It should also be noted that the location for any cumulative effects would be on the tidal section of the River Foyle. The potential for cumulative impacts here would **not be significant** due to the habitats present and the dilution effect present in tidal waters.

The LK Green Connect Scheme (PR4) is currently in the design stage, but the proposals if construction phases overlapped could have the potential for likely significant cumulative construction phase emissions to water, which could affect downstream habitats and fishery potential limiting the foraging resources to otter. However, the small source area and the tidal nature of the Swilly in this location would mean that any such cumulative effects would not be significant. PR4 has potentially **positive operation phase effects** in its own right owing to increased flood storage and possible sediment attenuation within the created urban wetland. The magnitude of that positive effect is unlikely to be measurable at the proposed Swilly Bridge in Section 2.

The Station Road, Lifford- Community Park (PR5) that was granted permission in 2023 is just downstream of the River Finn Crossing in Section 3 and has the potential for likely significant cumulative construction phase emissions to water (sediment, hydrocarbons and concrete) if construction phases overlap. However, the NIS and EIAR for Station Road Community Park propose mitigation that states there will be no residual impacts on biodiversity. The cumulative assessment concludes that the Proposed Development pairwise with PR5 will **not have likely significant effects** on emissions to water.

The N15 Corcam Bends Active Travel and Road Realignment (PR7) is now in the design stage, but there could be connectivity via tributaries to the River Finn SAC just downstream of the Proposed Development. Therefore, there is potential for cumulative construction phase emissions to water (sediment, hydrocarbons and concrete) if construction phases overlap. However, the smaller source area would mean that the cumulative effects would be **not significant**.

The proposed flood relief schemes (PR14-PR17) identified above for consideration all have hydrological connections to the River Finn SAC and River Foyle and Tributaries SAC. The proposals all have potential for instream works and subsequently likely significant cumulative construction phase emissions to water (sediment, hydrocarbons and concrete) if construction phases overlap. Some of the schemes are more removed from the Proposed Development whilst others are in close proximity. All of these schemes as mentioned above would incorporate design, best practice and bespoke measures to mitigate likely significant effects. The Ballybofey and Stranorlar FRS (PR15) given its location and receiving habitat in that location has the potential, that if works were carried out simultaneously, could give rise to significant cumulative effects. However, mitigation has been set out in Section 19.9.5 below that the construction phase of the

Proposed Development will be programmed to ensure that these overlaps in construction do not occur. This will result in no likely significant cumulative impacts. The other schemes are significantly separated or discharge to habitats that would **not be significantly impacted** by increased emissions and would not result in any likely significant cumulative effects.

The Bulk LPG Filling Facilities at Bunagee (PR63), Buildings and Sewage Treatment Plant (PR18), Warehouse Storage Facility (PR19), and the 25 no. dwellings at Ramelton Road (PR55) were identified due to their proximity to the wintering birds at the proposed Swilly bridge crossing. PR63 is approximately 35 m north-west of the Proposed Development and approximately 70 m east of the fields along the Swilly Estuary in which bird activity was recorded on the east side of the proposed Swilly crossing. PR18 is approximately 340 m south-west of the Proposed Development and approximately 140 m south of where the Corravaddy Burn flows into the Swilly Estuary. PR19 is approximately 95 m north-east of the Proposed Development and is immediately to the east of the fields along the Swilly Estuary in which bird activity was recorded on the east side of the proposed Swilly crossing and approximately 30 m west of the Swilly Estuary. PR55 is approximately 250 m north of the Proposed Development and approximately 400 m north-west of where birds were recorded utilising the wastewater treatment plant.

Should the timing of the construction of the above projects overlap with the construction phase of the Proposed Development, there is potential for cumulative impacts of disturbance of wintering birds. However, the wastewater treatment plant wintering bird site is at the far end of the potential Zol of disturbance from PR55. Given the suburban development between these two sites and the surrounding residential and commercial land uses, PR55 is **not likely to result in significant cumulative effects**. The potential zones of influence of disturbance from PR63, PR18, and PR19 largely overlap with the Zol of disturbance from the Proposed Development. In the impact assessment of the Proposed Development, it is assumed that wintering birds will be displaced from the vicinity of the Proposed Development, but there is an abundance of suitable habitat downstream to absorb the displaced birds. The surrounding projects are not likely to displace significantly more birds than are already assumed to be displaced by the Proposed Development. Any increase in the number of displaced birds would still be able to utilise habitat downstream, which will not be subject to disturbance from any of the projects. Therefore, these projects would **not cause any likely significant cumulative effects**.

19.9.4.1 Cumulative Effect of all Screened in Projects

Two of the identified schemes (PR2 and PR15) above have the potential to give rise to significant cumulative effects at the construction phase if they overlap with the construction phase of the Proposed Development at certain locations. These are in relation to hydrological connectivity and the potential for construction phase emissions to water (sediment, hydrocarbons, concrete), which in turn could have detrimental effects on Terrestrial Biodiversity IEF species, that utilise the water courses (otters, birds), and downstream habitats. However, mitigation is proposed which will ensure that the construction phase of the Proposed Development will be programmed to ensure that these overlaps in construction do not occur, which will result in no likely significant cumulative impacts.

The other identified developments have the potential for localised not significant cumulative effects with the Proposed Development. At a regional scale, it is considered that when assessed cumulatively, no likely significant effects would be considered in EIA terms.

19.9.5 Aquatic Biodiversity

Chapter 9B: Biodiversity – Aquatic examined and assessed projects in terms of potential cumulative source and impact pathways which could affect aquatic receptors in combination with the Proposed Development.

Projects were considered on a case-by-case basis for screening in or out of the Aquatic Biodiversity CIA. This was based upon the source- pathway- receptor conceptual model, the spatial/ temporal scales involved, data confidence, and receptor sensitivity. Given the significant geographical scale involved, a robust scoping exercise was carried out to identify only those projects with potential for likely significant cumulative effects on aquatic receptors in combination with the Proposed Development.

The following rationale was applied:

- Projects were screened into the aquatic CIA where they involve discharges to the IEF watercourses affected by the Proposed Development, and where those discharges involve water quality parameters that are similarly related to road construction (i.e. sediment, concrete, hydrocarbons). This included a number of larger housing developments whereby it was assumed they could overlap in the construction phase with similar potential for pollutant wash-out during construction.
- Projects were screened into the aquatic CIA where they involve discharges to the IEF watercourses affected by the Proposed Development, and where those discharges involve water quality parameters that are similarly related to road operation/ maintenance (i.e. sediment, heavy metals, hydrocarbons).
- Large infrastructure projects with direct physical impact on watercourses, e.g., proposed flood relief schemes, were screened in, depending on their location in relation to the Proposed Development.
- Larger Active Travel / Greenway projects were screened in where they were deemed to be of a scale requiring new earthworks or watercourse crossings that have potential for contaminated run-off during construction. Operational phase effects of active travel projects were deemed not significant owing to lack of potential pollutant sources associated with road carriageway run-off.
- Small scale active travel / greenway projects were screened out where they involve a repurposing of existing hardstanding or existing road carriageway, particularly if they had received consent as of November 2025. These projects do not require significant earthworks and/or new instream works (culverts).
- Projects were screened out where they have received planning permission and are likely to be constructed in advance of the Proposed Development, and where the application NIS found no adverse effect on conservation objectives or overall integrity on a hydrologically connected SAC and/or no significant negative construction phase residual effects and involved no physical changes (culverts, bridges) to watercourses that could potentially have operational phase cumulative effects with the Proposed Development. In those cases, it was determined that the environment will have returned to the similar (or not significantly altered) baseline, as reported and assessed for the Proposed Development, following a temporary construction phase disturbance. Hence those projects have no potential for significant cumulative effects with the Proposed Development.
- Projects were screened out if the potential source character of pollutant washout in the construction phase were reasonably deemed to be of negligible scale, magnitude, duration or type as to reasonably be considered not significant. For example, site works occurring on an area of existing hardstanding in an industrial area where limited or no excavations are likely; excavation of a new football pitch (with the consideration that agricultural fields multiple that size are routinely ploughed and form part of the existing baseline).
- Projects were screened out if they share no hydrological connectivity (no pathway) or a very tenuous pathway that could not reasonably have potential for cumulative effects, i.e., occurs in a separate surface water body or has extremely limited footprint within the same river water body as the Proposed Development. For example, Lettergull Wind Farm is c.1.0 km east of Section 3 but occurs almost entirely within a separate waterbody. A fraction of the project red line boundary extends into the dry, upper reaches of a separate Swilly Burn_030 tributary area (not affected by the Proposed Development), but with no identified watercourse interaction. Professional judgement was applied in these cases so as to provide focus only upon potential for likely significant cumulative effects.
- Projects that involve discharges of nutrients (i.e., agricultural or waste water discharges of organic origin) were screened out, as organic nutrients are not significant parameters of concern with regards to road construction or operation.
- One-off housing projects were screened out, as these have low levels of construction phase emissions and will be required to connect to the public sewer or install a compliant on-site waste water treatment system.
- Residential and industrial development discharges were screened out as these will each connect to the public sewer, and/or their own water treatment facilities. Such discharges are ultimately controlled via appropriate emission limit values as conditions of emission licences, e.g., wastewater treatment plants, pig farms, food processing factories etc.

Using the above criteria, a total of ten (10 no.) projects were screened into the Aquatic Biodiversity CIA for detailed examination of likely significant cumulative effects as presented in Table 19-4.

Of the projects screened in but not yet submitted for planning approval, (e.g., flood relief schemes) it is reasonable to assume none of these will have permission granted unless the individual project incorporates design, best practice and bespoke measures to mitigate likely significant effects identified for those projects. This includes at a minimum, best practice construction phase water quality protection measures to protect aquatic habitats and species in line with industry guidelines (e.g., CIRIA C648, Murnane et al. 2006; Loughs Agency, 2011; NRA, 2008; IFI, 2016).

In addition, where those projects occur in the Foyle catchment and require in-stream works (e.g., Ballybofey / Stranorlar Flood Relief Scheme) they will be subject to Foyle Fisheries Act 1952 Section 47 (instream works and potentially Section 70 (fish removal) permit processes through the Loughs Agency. Typical conditions of those permits will be measures for water quality and fisheries protection, specific to the construction methodology that project. Hence the CIA has been conducted by consideration of post-mitigation residual effects, in-combination with post-mitigation residual effects of the Proposed Development.

The following projects were screened in for potential significant cumulative effects on Aquatic Biodiversity:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigans to Lifford Greenway Castlefinn and Foyle Valley Greenway Link
- **PR4-** LK Green Connect
- **PR7-** N15 Corcam Bends Active Travel and Road Realignment
- **PR6-** Station Road, Lifford - Community Park and Pedestrian / Cycle Bridge
- **PR14-** Balleybofey and Stranorlar Flood Relief Scheme
- **PR16-** Castlefinn Flood Relief Scheme
- **PR15-** Raphoe Flood Relief Scheme
- **PR13-** Lifford FRS

Table 19-4: CIA Projects Screened in Aquatic Biodiversity

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR1	Occurs in proximity to Section 3 at the proposed River Finn crossing: N14/ N15 to A5 Link and with shared hydrological connectivity to the lower Finn/Foyle rivers within their tidal reaches.	A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)	<p>If the A5 WTC is constructed it will include the Trunk Road T3 which provides a connection to the proposed N14/N15 to A5 Link over River Finn from Section 3 of the Proposed Development. Note that if the A5 WTC is not built, then the N14/N15 to A5 Link will not be constructed. Hence this assessment considers both scenarios.</p> <p>Section 9B.11 Transboundary Effects, of Chapter 9B Biodiversity - Aquatic details the effects on aquatic receptors and designated sites: River Finn SAC and River Foyle and Tributaries SAC, for both scenarios.</p> <p>Close hydrological connectivity exists between PR1 and Section 3 in the lower River Finn / River Foyle catchment. PR1 has no direct footprint on the Finn or Foyle rivers but occurs on the Northern Ireland side of the rivers Foyle and Finn, therefore any potential cumulative effects will be indirect, mainly related to potential wash out of construction related pollutants and primarily suspended solids. A review of the Environmental Statement for PR1 concluded that owing to the suite of mitigation measures proposed in the area of water quality pollution during construction and drainage design (including SUDs features), likely effects (on aquatic habitats) owing to potential impact on water quality would not constitute a significant effect on the environment during construction or operation of PR1.</p> <p>Similarly, a suite of mitigation measures has been prescribed for the Proposed Development that will result in no significant residual effects on water quality (and associated aquatic habitats) of the lower Finn/Foyle rivers (Section 3). In terms of cumulative residual effects, if southern Section 3 (Foyle catchment) and the section of PR1 between Newbuildings, Co. Tyrone and Junction 7: Strabane N14/N15 are constructed simultaneously, potential exists for slightly elevated cumulative peaks in concentration of (mainly) suspended solids in the receiving waters. Whilst this may be a slight negative cumulative impact on water quality, it is necessary to examine the significance of its effect on aquatic receptors.</p> <p>The receiving waters are the tidal River Finn downstream of the proposed N14/N15 to A5 Link in Section 3 and the River Foyle downstream of the Mourne confluence. These lower river and transitional water reaches do not possess sensitive spawning or nursery habitats for salmon which are the Annex II QI species of River Finn SAC and River Foyle and Tributaries SAC. The receiving estuarine (transitional water) environment is routinely subject to natural variability in terms of turbidity and sediment dispersal. Whilst it cannot be ruled out that if there was concurrent construction of the two projects, some temporary periods of slightly elevated suspended solids may occur on the River Foyle and lower River Finn, the likelihood of these being measurable above background levels is low given the drained, sluggish and tidal nature of the receiving waters and the enormous dilution factor of the lower River Finn and River Foyle. Taking into account the river is of a depositing nature and habitats / species of the tidal river</p>	<p>Refer to Section 9B.11 Transboundary Effects for an explanation of why the cumulative effect conclusions below are considered for two scenarios (1) with construction of N14/N15 to A5 Link; (2) without construction of N14/N15 to A5 Link.</p> <p>Construction Phase:</p> <p>Upstream of Mourne /Foyle confluence related primarily to N14/N15 A5 link (and Trunk Road T3) bridge: Indirect temporary slightly negative cumulative impact in terms of slightly elevated combined suspended solids relating to Section 3 only, but the cumulative residual <i>effect</i> on aquatic receptors will be not significant (in the scenario where the N14/N15 to A5 Link is constructed). Indirect neutral to temporary slightly negative cumulative impact in terms of slightly elevated combined suspended solids relating to Section 3 only, but the cumulative residual <i>effect</i> on aquatic receptors will be not significant (in the scenario without the N14/N15 to A5 Link) River Foyle downstream Mourne confluence:</p>

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>reaches are ordinarily subject to, and adapted for, intermittent turbidity increases, receptor sensitivity is not at the level it would be for a salmonid recruitment area. Indeed, the River Foyle and Tributaries SAC only includes the River Foyle in the cumulative Zol as a link to the sea for salmon migrating to and from the spawning waters of the Mourne, Derg and Strule rivers in Northern Ireland (¹NIEA, 2024). Similarly, the cumulatively affected reach of the lower River Finn is a migration/holding habitat only for fish movement to the upper Finn spawning habitats. There is no potential direct or indirect cumulative construction phase impact on sensitive spawning or nursery waters in relation to these two projects.</p> <p>With the implementation of construction phase water quality protection measures for both projects, the effect of even slightly cumulatively elevated suspended solids (if they did occur, which is not a given) would not be likely to have significant negative effects because older migrating salmonids (returning adults and outward going smolts) are highly mobile, adaptable and respond behaviourally through avoidance, i.e., smolts moving quickly downstream and adults following instinct to move further upstream.</p> <p>No likely significant negative cumulative operational phase effect is predicted on aquatic receptors of the lower River Foyle or Foyle estuary during the operation phase of these combined projects owing to incorporation of sustainable drainage design measures (which confer run-off attenuation/ treatment) that are built into both projects.</p>	<p>Intermittent, short term negative cumulative impact in terms of slightly elevated combined suspended solids relating to Section 3 only, but the cumulative residual <i>effect</i> on aquatic receptors will be not significant</p> <p>Extremely unlikely to have significant cumulative residual effects with Section 1, located 30 km upstream in the Finn/ Foyle catchment.</p> <p>No hydrological connectivity to Section 2, therefore no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>
PR2	Section 1: Burn Daurnett sub-catchment and River Finn	Barnesmore Gap Greenway. New greenway between Donegal Town and Ballybofey. (Phase 3: Design and Environmental Evaluation) potential Q1 2026 submission to ACP	<p>Close hydrological connectivity exists with PR2 in Section 1. A review of available information on PR2 was undertaken. As of early 2026, it was at an early design and environmental assessment stage. The indicative preferred route suggests interaction with watercourses within the Burn Daurnett and River Finn catchment near Ballybofey/Stranorlar in proximity to Section 1 of the Proposed Development. The Greenway design potentially includes: (i) instream works to refurbish a rail bridge over River Finn SAC downstream of Ballybofey, (ii) new (clear span) bridge over Burn Daurnett river near Capry to connect to the active travel element of the Proposed Development, (iii) several culverts on more minor watercourses that are not crossed by the Proposed Development in the upper Burn Daurnett catchment, also noting that Greenway crossing widths are usually relatively minor (c.5 -10 m). PR2 could give rise to similar construction phase emissions to water and aquatic habitats of River Finn and Burn Daurnett resulting in a cumulative indirect impact on water quality that may indirectly affect aquatic habitats. It is noted that potential source areas (for e.g., sediment, hydrocarbons, concrete) for</p>	<p>Construction Phase: Potential, indirect temporary to short-term negative, significant effects cannot be ruled out at a range of geographic levels from County Level (Burn Daurnett) to International (River Finn) – Only in relation to Section 1.</p> <p>Unlikely to have significant cumulative residual effects with Section 3, located 20 km</p>

¹ NIEA (2024) River Foyle and Tributaries SAC (UK0030320) Conservation Objectives and Supporting Advice. Northern Ireland Environment Agency.

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>the Greenway will be smaller compared to Proposed Development, e.g., lesser scale of excavations for foot/cycle path. It can also be expected that PR2 will be required to include design, best practice and bespoke mitigations for pollutant loss prevention during construction to avoid adverse effects on water quality.</p> <p>Given PR2 is still in the design stage, it is not unreasonable to expect that: (1) that design will take into account the design of the Proposed Development, (2) the timing of the construction phases at key locations, i.e., where there is a risk of cumulative water quality and fisheries habitat impacts, can be scheduled so as to avoid direct construction phase overlap between the projects, and (3) as for the current project, any mitigation for instream and general construction works within the River Finn (Foyle) catchment will be the responsibility of PR2 and will be subject to its own Appropriate Assessment reporting. As well as permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency (as required for the Proposed Development and set out in Section 9B.6 of EIAR Chapter 9B Biodiversity – Aquatic Ecology).</p> <p>That being said, assuming a direct overlap in the construction phases of PR2 and Proposed Development, there is a combined potential for residual cumulative increases in water borne pollutants (mainly sediment) with indirect effects on fisheries habitats of the Burn Daurnett and River Finn, including spawning and nursery waters, with the River Finn SAC being the ultimate receiving water. Potentially significant indirect cumulative effects cannot be ruled out in relation to the construction phase in Section 1 of the Proposed Development in the absence of further mitigation (refer to Section 19.10).</p> <p>There will be no likely significant operational phase cumulative negative effects on aquatic receptors in the Burn Daurnett and/or River Finn as there will be no barriers to fish movement introduced by either project and limited or no sources of operational phase run-off pollution from the Greenway (metals, sediment, hydrocarbons) that are likely to have a significant cumulative impact on water quality in the catchment in combination with the Proposed Development.</p>	<p>downstream in the Finn/ Foyle catchment.</p> <p>No hydrological connectivity to Section 2, therefore no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>
PR3	Section 3: Runs along River Finn / Foyle corridor west bank.	Carrigans to Lifford Greenway Castlefin and Foyle Valley Greenway Link (Public Consultation Stage)	<p>Close hydrological connectivity exists in Section 3: The emerging route corridor of PR3 follows the western bank of the tidal River Foyle with crossings of River Deelee and Swilly Burn. These may or may not be new crossings, e.g., potential repurposing of existing R265 bridge (Swilly Burn). A review of available information on PR3 route corridor suggests relatively limited potential for new culverts (apart from minor land drains).</p> <p>PR3 would potentially give rise to construction phase emissions to water (sediment, hydrocarbons, concrete) of a similar nature to residual emissions from Section 3, although the combined emission level would be unlikely to be cumulatively significant given the relatively modest scale of construction work / excavation required for PR3 (i.e., smaller, manageable works / excavation areas). Furthermore, the receiving aquatic habitat lacks high sensitivity in terms of fisheries. The main receiving rivers in the cumulative Zol (Deelee, Swilly Burn) are</p>	<p>Construction Phase: Indirect temporary to short-term slightly negative cumulative impact relating to Section 3 only, but the cumulative residual <i>effect</i> on aquatic receptors will be not significant.</p> <p>No significant cumulative residual effects with Section 1,</p>

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>drained, tidal and depositing in the lower reaches, as is the River Foyle a short distance downstream. These river reaches are migration and holding habitats for fish only, with no potential for cumulative impact on sensitive salmonid spawning or nursery waters.</p> <p>It can be expected that PR3 will be required to include design, best practice and bespoke mitigations for pollutant loss prevention during construction to avoid adverse effects on water quality of watercourses it traverses and in the downstream Zol. As for the current project, any mitigation for instream and general construction works within the River Finn (Foyle) catchment for, e.g., culverts, bridge upgrade work, will be the responsibility of PR3 and will be subject to its own Appropriate Assessment reporting and any permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency (as required for the Proposed Development and set out in Section 9B.3 of Chapter 9B Biodiversity – Aquatic Ecology).</p> <p>Given the tidal, depositing nature of the main stem rivers potentially cumulatively affected and with the implementation of water quality protection measures for both projects, the effect of even slightly cumulatively elevated suspended solids (in the unlikely event they did occur) would not have significantly negative effects. Firstly, the cumulative level of residual suspended solids (with mitigations in place for both projects) is very unlikely to be significantly increased over natural baseline variability for tidal and/or a transitional water environment such as the River Foyle. Secondly, the receiving environment lacks the sensitivity of, e.g., salmonid recruitment areas. Older migrating salmonids (returning adults and outward going smolts) that will be present in these reaches are highly mobile, adaptable and respond behaviourally through avoidance, i.e., smolts moving quickly downstream and adults following instinct to move further upstream.</p> <p>There will be no likely significant operational phase cumulative negative effects on aquatic receptors in the River Deele or Swilly Burn, nor the downstream River Foyle as there are no significant sources (suspended solids, metals, hydrocarbons) of operational phase run-off pollution from PR3 that are likely to have a significant cumulative impact on water quality in the catchment in combination with the Proposed Development.</p>	<p>located 30 km upstream in the Finn/ Foyle catchment.</p> <p>No hydrological connectivity with Section 2, hence no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>
PR4	Section 2: Urban Letterkenny circa 2 km upstream of proposed River Swilly Bridge	LK Green Connect, Letterkenny. Urban walking, cycling and public realm infrastructure development. (Design stage; potential Q1 2026 submission)	<p>Nearby hydrological connectivity exists in Section 2: The conceptual design indicates a series of connections along the River Swilly, including footpaths/trails and an urban wetland creation. There is potential interaction with small tributaries of River Swilly in urban Letterkenny (Sprackburn, Port Bridge Stream) which connect to the Swilly main channel c. 2.4 km upstream of the proposed River Swilly bridge in Section 2. Possible walking/cycle paths extend along the Swilly riverbank as far as Port Bridge, located 1.5 km upstream of the proposed Section 2 bridge. The PR4 design suggests some potential for culverts on the small tributaries and excavation for wetland creation and footpaths, but no direct impact on the Swilly main channel. PR4 would potentially give rise to construction phase emissions to water (sediment,</p>	<p>Construction Phase: Indirect temporary slight negative cumulative impact in terms of perhaps marginally elevated combined suspended solids relating to Section 2 only, but the cumulative residual effect on aquatic receptors will be not significant.</p>

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>hydrocarbons, concrete) of a similar nature to residual emissions from Section 3, although the combined emission level would be unlikely to be cumulatively significant given the modest scale of construction work area / excavation required for PR4 which is likely to be manageable with regards to prevention of potential construction phase pollutant wash-out. Furthermore, the lower River Swilly is tidal within the cumulative assessment reach and does not comprise sensitive salmonid spawning or nursery waters; it is a migration and holding habitat for anadromous and catadromous fish of the Swilly system. It's also noted that the receiving estuarine (transitional water) environment is subject to natural (and anthropogenic) variability in terms of turbidity and sediment mobilisation/dispersal from wider catchment sources and migrating fish are adapted physiologically and behaviourally to such variability.</p> <p>It can reasonably be expected that PR4 will be required to include design, best practice and bespoke mitigations for potential pollutant loss prevention during construction to avoid adverse effects on water quality locally and in the downstream Zol. PR4 will also be subject to Appropriate Assessment with regards to Lough Swilly SAC.</p> <p>In a scenario where PR4 and Section 2 had a concurrent construction phase - given the relatively modest scale and nature of PR4, the large dilution capacity of the River Swilly and Lough Swilly in this location, and the mitigations both projects will employ to prevent pollutant wash out, the risk of cumulative suspended solids levels even being measurable within Lough Swilly is low. The effect in the estuarine environment, and on the migration of fish in the lower River Swilly will not be significantly negative. There is no likelihood of significant residual negative construction phase cumulative effect on marine habitats of Lough Swilly, including qualifying interest Habitat 1130 'Estuaries' of Lough Swilly SAC as the cumulative level of residual suspended solids (with mitigations in place for both projects) will not be significantly increased over baseline variability.</p> <p>PR4 has potentially positive operation phase effects owing to increased flood storage, with the benefits of reconnecting a large river to its floodplain (e.g., attenuation / sediment settlement, nutrient uptake within the created urban wetland) with potential for a slight positive effect on water quality within Lough Swilly in the long-term.</p>	<p>No hydrological connectivity with Sections 1 or 3, hence no cumulative effect.</p> <p>Operation Phase: Neutral or positive, not significant</p>
PR7	Section 1: Immediately east of Proposed Development N15 tie in at nearest 200 m from River Finn SAC	N15 Corcam Bends (Phase 2, Stage 3 – Preferred Route Selection) (Potential ACP submission expected 2026)	<p>Close hydrological connectivity exists in Section 1: PR7 commences to the east Stranorlar and continues for approximately 1.5 km east along the N15. It is located immediately east of proposed N15 tie-in of the Proposed Development in Section 1. The proposal is to upgrade the road to meet safety standards. Proposed works are c. 200m east of the Mullaghagarry culvert upgrade (Site W1-20) in Section 1. There is tenuous hydrological connectivity via field drains and two small tributaries of the River Finn (and River Finn SAC) c. 700 m downstream of the confluence of the Mullaghagarry stream affected by Proposed Development. No direct impact on the River Finn main channel occurs from either project. Details of instream works (if any) for culvert upgrades on tributaries for PR7 are unknown, however, it can be expected that the</p>	<p>Construction Phase: Indirect neutral and not significant effects relating to Section 1.</p> <p>No hydrological connectivity with Section 2, hence no likelihood of significant cumulative effects.</p>

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>project will be required to include design, best practice and bespoke mitigations for pollutant loss prevention during construction to avoid adverse effects on water quality locally and in the downstream Zol.</p> <p>If PR7 and Proposed Development construction phases occurred concurrently, excavations and instream works could be sources of intermittent suspended solids wash-out to the River Finn for the (temporary) duration of the former's construction. However, PR7 is of a modest scale locally, and very minor scale at a catchment level, with relatively small source areas for construction phase pollutant (mainly sediment) wash out to the River Finn. As for the current project, any instream works within the River Finn (Foyle) catchment (e.g., culverts if required), will be the responsibility of PR7 and will be subject to Appropriate Assessment and any permits as required from Loughs Agency for instream works, and mitigations including project specific and water quality protection requirements that are typical conditions from Loughs Agency (as required for the Proposed Development and set out in Section 9B.3 of Chapter 9B Biodiversity – Aquatic Ecology).</p> <p>Considering the modest scale of PR7, the tenuous connectivity to the River Finn, i.e., with ample opportunity to control pathways of construction phase run off to the River Finn, and the large dilution capacity of the River Finn main channel in this location, there is a very low likelihood of cumulative negative impact on water quality and hence no cumulative residual negative effects predicted on aquatic biota, including fisheries habitats of the River Finn as a result of possible combined construction of PR7 and the Proposed Development.</p>	<p>Distant hydrological connectivity (c. 30 km downstream) to Section 3 with no likely significant cumulative effects.</p> <p>Operation Phase: Neutral, not significant</p>
PR6	Section 3: Circa 1.8 km downstream of proposed N14/N15 to A5 Link Bridge	Station Road, Lifford - Community Park (ACP Grant with Conditions 14/02/23)	<p>Nearby hydrological connectivity exists in Section 3: PR6 includes a clear span cycle/foot bridge over the tidal River Foyle a short distance downstream of the confluence of the River Mourne and River Finn, 1.5 km downstream of the proposed N14/N15 to A5 Link bridge in Section 3. It includes and landscaping east and west of the river covering 22 ha (14.9 ha Lifford side; 7.8 ha Strabane side). The site has flood protection embankments on both banks. It includes SUDS measures to attenuate/treat hard surface run-off. Includes instream works for new ramped slipway (boats) and stepped access (kayaks), plus parking areas, amenity facilities, pathways and an access road, but there is no instream structure proposed that would create a barrier to fish movement or migratory routes. The EIAR and NIS for PR6 proposes mitigation measures which are standard and best practice to protect water quality and prevent invasive species transfer, which will reduce the potential for significant effects on the River Foyle and the habitats and species it supports. These measures are conditioned in the planning consent for the project (ACP 311542) in terms of water quality protection, biosecurity and invasive species management.</p> <p>If PR6 and the southern elements of Section 3 including N14/N15 to A5 Link bridge were constructed in the same timeframe, there is potential for cumulative elevation of construction phase pollutant wash-out, mainly suspended solids, in the River Foyle downstream of Lifford.</p>	<p>Construction Phase: Indirect temporary negative not significant only in relation to Section 3, noting that the construction phases are unlikely to coincide, in which case potential for cumulative construction phase effects does not arise.</p> <p>No significant cumulative residual effects with Section 1, located 30 km upstream in the River Finn sub-catchment of the Foyle.</p>

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			The affected reach is potentially a short section of the River Foyle downstream of Lifford/Strabane (likely <1km given the dilution capacity and depositing, tidal nature of the river). The receptor sensitivity is not high within the cumulative Zol. There is no sensitive salmonid spawning and/or nursery habitat downstream of PR6; the reach is a migration / holding habitat only. It is considered that the mitigation measures conditioned for PR6 and those prescribed for the Proposed Development in the area of water quality protection, will reduce potential for significantly negative cumulative effects on the River Foyle and the habitats and migratory fish species it supports. Given PR6 received planning consent in 2023, and was officially launched with funding secured in January 2026, it is very likely to be constructed in advance of the Proposed Development, in which case there would be no potential for cumulative construction phase effects on aquatic habitats and fisheries. There is no potential for operational phase effects as both projects propose clear span bridges that do not create barriers to fish movement and migration.	No hydrological connectivity to Section 2, therefore no cumulative effect. Operation Phase: Neutral, not significant
PR14	Section 1: Works indicated on the same channels in that are crossed by Section 1 of the Proposed Development.	² Ballybofey and Stranorlar Flood Relief Scheme (FRS) (Stage I: Scheme Development and Preliminary Design)	Close hydrological connectivity exists in Section 1: PR14 was in the early planning stage (Options) in early 2026 and timeframe to construction was unknown. The indicative FRS includes possible construction of discrete reaches of hard defence (flood walls) in locations within the towns and surrounding areas along the following watercourses: Finn, Burn Durnett, Goland, Carrickmagrath, Sessiagh, Cooladawson, Treanamullin, Lough Alaun tributary and Backlees. PR14 has potential indirect (but nearby) overlap with Proposed Development on the following channels: Finn, Burn Durnett, Backlees and Treanamullin. There is more distant, indirect overlap on other smaller channels in the Burn Durnett catchment. Loughs Agency electrofishing data (2021-2024) records salmon and trout in the River Finn, Burn Durnett and Backlees (refer to Appendix 9B.06) which are each subject to potential cumulative construction phase impacts (i.e., instream interventions on the same channels) between PR14 and the Proposed Development. Potential cumulative impacts are related to instream works to install hard defences and/or upgrade culvert capacity (FRS related), in combination with culverts and general construction works (Proposed Development). As for the Proposed Development (refer to Section 9B.3 of Chapter 9B Biodiversity – Aquatic), mitigation for any instream works will be the responsibility of the individual FRS project and the FRS will be subject to Appropriate Assessment and any permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency. Furthermore, given PR14 is still in the early design stage, it is not unreasonable to expect that: (1) the FRS design and hydrological modelling will take into account the design of the Proposed Development, and (2) the timing of the construction phases at key locations, i.e.,	Construction Phase: Potential, indirect temporary negative, significant effects cannot be ruled out at a range of geographic levels from Local Importance (higher value) to International – Only in relation to Section 1. Significant cumulative residual effects with Section 3, located 20 km downstream in the Finn/Foyle catchment are extremely unlikely and considered neutral. No hydrological connectivity to Section 2, therefore no cumulative effect. Operation Phase: Neutral, not significant

² <https://www.floodinfo.ie/frs/en/ballybofey-stranorlar/home/> (Accessed December 2025)

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>where there is a risk of cumulative water quality and fisheries habitat impacts, can be scheduled so as to avoid direct construction phase overlap between projects.</p> <p>That being said, applying the precautionary principle and assuming a direct overlap in the construction phases of PR14 and the Proposed Development, there is a residual, combined potential for cumulative increases in water borne pollutants (mainly sediment) and disturbance to fisheries habitats at several locations near Ballybofey (Section 1 of Proposed Development), with the River Finn SAC being the ultimate receiving water. Sensitive spawning and nursery habitats may be indirectly affected if instream works for the Proposed Development and PR14 occurred on the same watercourse in the same season. Potential cumulative effects would be related to temporary disturbance of localised fish migration, and habitat degradation owing primarily to cumulative increases in suspended solids associated with excavations, and in-channel works. Potentially significant cumulative negative effects on aquatic ecological receptors cannot therefore be ruled out in relation to Section 1 and PR14 combined, depending on the final design of the latter (currently unknown) and in the absence of further mitigation (refer to Section 19.10, for mitigation).</p>	
PR16	<p>Sections 1 and 3: FRS is located 11.3 km downstream of Section 1 and 9.8 km upstream of Section 3 (at nearest).</p>	<p>³Castlefinn Flood Relief Scheme (FRS) Stage II: Planning Process</p>	<p>Moderately distant hydrological connectivity exists to Section 1 and 3: PR16 is located 11.3 km downstream of Section 1 and 9.8 km upstream of Section 3 (at nearest). Possible 2027 to late 2028 construction commencement. PR16 proposes short sections of hard defences on smaller tributaries of the River Finn in Castlefinn. PR16 would require several culverts and non-return valves through the proposed flood defences on the tributaries. There are no works indicated on River Finn main channel; hence no direct impacts or effects are possible. The River Finn at the confluence of the small tributaries is a meandering lowland river, comprising uniform, depositing, generally glide habitat, with limited, if any salmonid spawning habitat. The Finn at this point in the catchment is primarily a migration route for anadromous and catadromous fish (salmonids, river/sea lamprey, eel).</p> <p>The indicated instream works on the small tributaries have a very minor footprint in relation to overall catchment size and the hydrological links to Proposed Development works are distant - in Section 1 (11.3 km upstream) and Section 3 (9.8 km downstream) via River Finn.</p> <p>As for the Proposed Development (refer to Section 9B.3 of Chapter 9B Biodiversity – Aquatic), mitigation for any instream works, e.g., hard defences or culvert upgrades, will be the responsibility of PR16 and will be subject to Appropriate Assessment and any permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency.</p>	<p>Construction Phase: Neutral, or imperceptible, not significant relating to Sections 1 and 3.</p> <p>No hydrological connectivity with Section 2, hence no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>

³ <https://countydonesgalfs.ie/castlefinnfrs/> (Accessed December 2025)

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>Any cumulative impact and effect would be indirect only, related to potential wash out of construction phase pollutants if the was a concurrent construction phase. However, given the location of PR16 in relation to the Proposed Development; the size of the catchment and dilution capacity of the River Finn, the nature of the River Finn aquatic habitat and the modest scale of works indicated (with no direct impact on the main channel), it is considered that indirect cumulative effects on the River Finn and the habitats and species it supports will be imperceptible at the scale involved and not significant.</p>	
PR15	<p>Section 3: Located 2.8 km upstream of the proposed Swilly Burn River Bridge.</p>	<p>⁴Raphoe Flood Relief Scheme (FRS) Stage II: Pre - Public Exhibition / Confirmation</p>	<p>Nearby hydrological connectivity exists to Section 3: PR15 is located on the Swilly Burn at Raphoe, 2.8 km upstream of the crossing of the Swilly Burn River in Section 3 (the proposed Section 3 bridge is a further 7 km upstream of the River Finn / River Foyle and Tributaries SAC). PR15 has a possible 2026 construction commencement, although there is no published information (as of December 2025) for the Public Exhibition Stage, so it is unknown when the construction may commence. PR15 involves: (i) Primary measures: Diversion of surface water flow originating from the hills to the north and west of Raphoe by creation of new open channel with earthen embankments. Diverted flow will be directed to existing river channels to the south-west and south-east of the town to join the Swilly Burn, (ii) Secondary Measures: Hard defences, upstream storage, diversion of flow and overland floodway and associated drainage network improvements. None of the proposed measures occur on the main channel of the Swilly Burn itself. The FRS is set in separate water sub-catchments (Swilly Burn_010 and 020) to the Proposed Development (Swilly Burn_030) and there is no direct physical or hydrological overlap between the two projects. The only potential cumulative effects are indirect, related to potential cumulative construction phase wash-out (primarily of suspended solids) entering the Swilly Burn main channel from both projects, assuming concurrent construction phases (which is not a given). In that case the receiving water is the tidal, lower Swilly Burn 6.5 km upstream of the tidal River Foyle. The Swilly Burn at and downstream of the Section 3 bridge is tidal and highly modified by drainage and embankments. It forms a silted, generally depositing glide which has no salmonid spawning or nursery habitat but is a holding /migration route for anadromous and catadromous fish (salmonids, eel and potentially river/sea lamprey). Water quality is impaired which currently limits fisheries potential (partly linked to Raphoe wastewater treatment discharge). Loughs Agency electrofishing data (2020-2024) recorded trout but no salmon in the Swilly Burn (Appendix 9B.06).</p> <p>From the limited information available, the proposed new open channels / embankments for PR15 mainly involve out of channel works. It can reasonably be assumed such works that occur</p>	<p>Construction Phase: Indirect temporary to short term negative, not significant in relation to Section 3 only.</p> <p>No cumulative impact with Section 1 owing to location in a separate water sub-catchment.</p> <p>No hydrological connectivity with Section 2, hence no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>

⁴ <http://raphoefrs.ie/> (Accessed December 2025)

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>near the channels can be constructed using best practice water quality protection measures specific to that project. As for the Proposed Development (refer to Section 9B.3 of EIAR Chapter 9B Biodiversity – Aquatic), mitigation for any instream works that are involved will be the responsibility of PR15 and will be subject to Appropriate Assessment and any permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency.</p> <p>Given the tidal nature of the river downstream of the proposed Section 3 Swilly Burn bridge; the dilution capacity of the Swilly Burn (and downstream River Foyle), and with the implementation of water quality protection measures for both projects, there are no cumulative significant negative effects on aquatic biota predicted because sensitive spawning/ nursery habitats are not present in the cumulative ZoI, and any migrating fish are highly mobile, adaptable and respond behaviourally to turbidity through avoidance.</p>	
PR13	Section 3: Located 1.5 km downstream of the proposed N14/N15 to A5 Link Bridge of Section 3.	⁵ Lifford FRS Stage I: Scheme Development and Preliminary Design	<p>Nearby hydrological connectivity exists to Section 3. PR13 is in Stage I of planning; potential 2028 – 2030 construction period. The proposal involves hard defences (flood walls and embankments) along the left bank of the tidally influenced rivers Finn and Foyle and the right bank of the River Deelee, with tie-ins to existing embankments. Two local roads in the Roughan area will be raised. The tidally influenced channel forms the border between ROI and NI and the river is under designation as River Finn SAC (ROI) and River Foyle and Tributaries SAC (NI). It is a holding and migration route for the qualifying interest / feature species, salmon, in both (contiguous) SACs.</p> <p>The Constraints Study was prepared in 2021 (⁶RH, 2021) providing the most recently available information, which states <i>“As a general rule hard defences are kept as far back from the river channel or coastline as possible allowing the floodplain function to remain active. Where this is not possible, due to flood risk receptors being located within the floodplain, hard defences are placed around the property boundary to afford it protection. Where space allows, flood embankments are used but where space is restricted flood walls are utilised.”</i> This suggests FRS instream works may not be involved and set-back construction areas could be managed within the riparian buffer zone.</p> <p>Conservatively, there is potential for cumulative water quality deterioration on the lower River Finn/Foyle if PR13 and Section 3 construction phases coincided, but the effect is unlikely to be significant because there are no sensitive spawning or nursery habitats in the cumulative ZoI. The River Foyle is expressly only included in the River Foyle and Tributaries SAC (NI)</p>	<p>Construction Phase: Indirect temporary to short term negative not significant in relation to Section 3 only.</p> <p>Extremely unlikely to have significant cumulative residual effects with Section 1, located 30 km upstream in the River Finn catchment.</p> <p>No hydrological connectivity to Section 2, therefore no cumulative effect.</p> <p>Operation Phase: Neutral, not significant</p>

⁵ <https://liffordfrs.ie/> (Accessed December 2025)

⁶ RH (2021) Lifford Flood Relief Scheme, Co. Donegal Environmental Constraints Study Report. Ryan Hanley Consulting Engineers.

PR	Project Location Relationship	Project Name, type and Planning Status	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>downstream of the Mourne River confluence to provide a linkage to the sea (⁷NIEA, 2024). The important salmon and <i>Ranunculus</i> habitats are located within upstream spawning/nursery tributaries of the Mourne and its tributaries and sub-tributaries of the Strule and Derg, within Northern Ireland.</p> <p>As for the Proposed Development (refer to Section 9B.3 of Chapter 9B Biodiversity – Aquatic), mitigation for any instream works, e.g., hard defences or culvert upgrades, will be the responsibility of PR13 and will be subject to Appropriate Assessment and any permits as required from Loughs Agency for instream works, including project specific and typical water quality protection requirements as conditions from Loughs Agency.</p> <p>Considering the tidal nature and large dilution capacity of the River Foyle downstream of Lifford (including downstream of Deelee confluence) and with the implementation of water quality protection measures for both projects, it is considered the effect of, for example, slightly cumulatively elevated suspended solids (if they did occur, which is not a given), is not likely to have significant negative effects because sensitive spawning/ nursery habitats are not present in the cumulative Zol, and any migrating fish present are highly mobile (e.g., adult salmon, out-going smolts), adaptable and would tend to respond behaviourally to turbidity through avoidance.</p>	

⁷ NIEA (2024) River Foyle and Tributaries SAC Conservation Objectives V4. Northern Ireland Environment Agency.

19.9.5.1 Cumulative Effect of all Screened in Projects

In the absence of further mitigation, i.e., over and above that already prescribed in terms of water quality protection for the Proposed Development (and reasonably to be expected for other projects), there is a residual potential for significant cumulative negative impacts on receiving watercourses and associated aquatic biota within Section 1 of the Proposed Development in relation to two projects identified in Table 19-4 above:

- **PR2** - Proposed Barnesmore Gap Greenway (in later design and environmental assessment stage)
- **PR14** - Proposed Ballybofey / Stranorlar Flood Relief Scheme (in early design stage)

Cumulative negative effects on receiving watercourses would only occur if either of these projects had a concurrent construction phase with the Proposed Development and may be related to: (i) cumulative water quality degradation, i.e., combined, elevated sediment, hydrocarbon and concrete losses, and associated effects on aquatic biota as set out in Chapter 9B Biodiversity – Aquatic, Section 9B.5.3.1; and (ii) temporary fisheries habitat disturbance if/where instream works occur within 1 km of elements on the same watercourse that are part of the Proposed Development in the same year.

It is possible that neither the Barnesmore Gap Greenway Project nor the Ballybofey / Stranorlar FRS will have any instream works requirement within 1 km of elements that are part of the Proposed Development, on the same watercourse in the same year. However, the details of these two projects are currently unknown because they are both in earlier design stages. Design and environmental assessment information available for those projects was reviewed, and all that is currently indicated (as of early 2026) is the possibility of a separate physical interaction on a small number of watercourses that are also affected by the Proposed Development as follows:

- Barnesmore Gap Greenway – new footbridge over the Burn Daurnett at Cappry, to link in with Donegal TEN-T Active Travel route. New footbridge over River Finn downstream of Ballybofey.
- Ballybofey / Stranorlar FRS – possible proposal for hard defences on: (i) Burn Daurnett at Cappry, (ii) River Finn at Drumboe Lower and behind Jacksons Hotel, (iii) Backlees Stream at Drumboe Upper.

If neither the Barnesmore Gap Greenway Project nor the Ballybofey / Stranorlar FRS require instream works within 1 km of elements that are part of the Proposed Development, on the same watercourse in the same year, then no possibility of any construction phase cumulative impact or effect exists over and the effects that have already been assessed and mitigated in Chapter 9B Biodiversity – Aquatic. The separation distance of 1 km is a conservative zone of influence considering the moderate to large volume, fast-flowing nature of the watercourses in question (Burn Daurnett, River Finn). It is in line with the distance suggested within the TII Water Impact Assessment Overarching Technical Document (TII, 2025) to be applied to define a potential ZoI in relation to surface water quality effects when there is limited information, e.g., in the early stages of potential projects (as is the case for Barnesmore Gap Greenway Project and Ballybofey / Stranorlar FRS).

Further, the Ballybofey / Stranorlar FRS, the Barnesmore Gap Greenway Project, and the Proposed Development each have different likely timelines to obtain the necessary planning permissions and approvals. As of early 2026, the Ballybofey / Stranorlar FRS is only at early stages of planning (Stage 1 Options), while Barnesmore Gap Greenway is slightly further ahead in the planning stages. There is, therefore, a distinct possibility that all three projects will have separate construction phases with no overlap between them. In which case, there will equally be no possibility of any construction phase cumulative impacts and consequent effects on aquatic habitats and species.

However, taking the conservative scenario, and applying the precautionary approach, where: (i) there is overlap between the construction phases of the Proposed Development and either, or both, the Ballybofey / Stranorlar FRS or Barnesmore Gap Greenway Project, and (ii) either the Ballybofey / Stranorlar FRS, the Barnesmore Gap Greenway Project, or both, will require instream construction elements within 1 km of elements that are part of the Proposed Development, on the same watercourse in the same year, then the following mitigation will be applied:

- Phasing of construction elements where they involve instream works on the same channel within 1 km of each other, such that instream works on the same channel do not occur in the same instream works season of May 1st to September 30th of any year.

This measure addresses the identified potential for **significant negative** cumulative effects of the Proposed Development in-combination with the Ballybofey / Stranorlar FRS and/or the Barnesmore Gap Greenway Project. It is a practicable restriction that can be incorporated into the construction schedule for the Proposed Development which will avoid, prevent and reduce potentially significant cumulative negative effects (water quality degradation and associated effects on aquatic biota; temporary habitat disturbance / fragmentation during construction) on receiving watercourses and aquatic biota.

With this mitigation strategy in place and taking into account the detailed analysis of all other projects and plans screened into the Biodiversity – Aquatic CIA, residual cumulative effects on aquatic biodiversity will be **not significant**.

19.9.6 Land, Soil & Hydrogeology

A number of projects were identified as having the potential for significant cumulative impacts, with respect to Chapter 10: Land, Soils & Hydrogeology. Informed by the baseline assessment of receptor sensitivity/importance, the impacts from cuts and other earthworks were considered 250 m from the mainline.

Likely significant cumulative impacts were assessed based on the residual impact from the Proposed Development on the projects listed below. The following likely significant cumulative impacts were identified in some of the projects with the Proposed Development:

- Overburden & Bedrock Removal
- Import of Road Construction Materials
- Erosion of Earthwork Surfaces and Stockpiled Material
- Sealing of Overburden Material
- Soil Pollution (accidental spillage)
- Loss of groundwater storage due to bedrock excavation
- Increase in paved surfaces resulting in loss of recharge
- Increased groundwater vulnerability due to removal of overburden
- Deterioration in Groundwater Quality (silt runoff/accidental spillages/operational runoff)
- Impact to Groundwater Abstraction (Domestic Wells)

The identified projects were screened-in on the basis that they were within 250 m Zol of the Proposed Development and have a construction element that could result in accidental emissions and release of potentially hazardous substances, infiltration of surface run-off and a loss of soil reserve. This could result in likely significant cumulative impacts if the construction phase of the Proposed Development were to coincide in the absence of mitigation measures.

These impacts were assessed to determine whether there was a potential for the activities associated with these projects to interact with the Proposed Development and cumulatively result in a likely significant impact on Land, Soils & Hydrogeology.

The following projects were screened in for potential significant cumulative effects on Land, Soil & Hydrogeology:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR5-** Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge
- **PR66-** Twin Towns Old Railway Line Cycleway
- **PR63-** ABP No. 317354- Bulk LPG Filling Facilities at Bunagee
- **PR18-** Buildings and Sewage Treatment Plant
- **PR19-** Warehouse Storage Facility
- **PR21-** ESB Networks 110kv Letterkenny substation

A review of the Environmental Statement for PR1 concluded that there would be no significant impact on soils and geology. Additionally, mitigation measures have been proposed for potential pollution to groundwater and impacts on groundwater resources as part of PR1 as well as the Proposed Development

resulting in no likely significant effects as a consequence of each development alone. Pairwise, the assessment concludes that there are **no likely significant cumulative effects** arising from the developments due to the impact of the works being limited to the footprint of each individual development and no spatial overlap between the developments.

The Barnesmore Gap Greenway (PR2) will connect to the Proposed Development near Stranorlar and otherwise is spatially distinct. Given the application of required standard mitigation and best practice measures for both the Proposed Development and the greenway project at design and build stages, and the individual development effects being limited to the development footprint, the likely significant cumulative effect on land, soils and geology is considered **not likely significant**.

On review of the EIAR for Station Road, Lifford-Community Park and Pedestrian/ Cycle Bridge (PR5) construction related impacts are considered not significant for earthworks, excavations, material transport after implementation of mitigation measures. The cumulative assessment, considering the PR5 with the Proposed Development in a pairwise assessment, concludes there are **no likely significant cumulative effects** on land, soils and hydrogeology as there is minimal spatial overlap between the two developments.

For the Twin Towns Old Railway Line Cycleway (PR66), given application of required standard mitigation and best practice measures for the greenway project at design and build stages, the cumulative effect on land, soils and geology is considered **not likely significant** due to the nature of the works and no spatial overlap between the two developments.

On review of the Planning and Environmental Considerations Report for the Letterkenny Substation Development (PR21), it was concluded that with the implementation of mitigation measures, there will be **no significant cumulative impact** as a result of the construction or the operational phase of the Proposed Development.

On review of the NIS for ABP Case No. 317354 Bulk LPG Filling Facilities (PR63), there will be limited disturbance to the ground conditions as a result of this development. Mitigation measures for runoff control will ensure **no cumulative effects** are envisaged as a result of this development in combination with the Proposed Development due to the nature of the works and no spatial overlap between the two developments.

On review of the NIS for the Building and Sewage Treatment Plant (PR18), the construction related impacts are reduced to **negligible** for earthworks, accidental spillages, material transport & runoff after implementation of mitigation measures. **No cumulative effects are envisaged** as a result of this development in combination with the Proposed Development due to the nature of the works and no spatial overlap between the developments.

On review of the NIS for the Warehouse Storage Facility (PR19), the construction related impacts are reduced to **negligible** for earthworks & site runoff after implementation of mitigation measures. **No cumulative effects are envisaged** as a result of this development in combination with the Proposed Development due to the nature of the works and no spatial overlap between the two developments.

19.9.6.1 Cumulative Effect of all Screened in Projects

The Proposed Development together with projects identified above may lead to the decrease in soil quality and water quality in the underlying bedrock aquifers and Groundwater Bodies. The impact is predicted to be localised due to the small area of the projects identified. The projects are not expected to generate hazardous substances or significant suspended solids. The impact will therefore be local, short term, intermittent and high reversibility. Attenuation within the natural subsoil and surface waterbodies is likely to provide adequate attenuation, therefore, the magnitude is considered to be **negligible**.

As the magnitude of the impact is deemed to be negligible, any cumulative effect will be of **imperceptible** significance and **not considered significant** in EIA terms.

19.9.7 Water

The extents of the ZoI used for Chapter 11: Water was defined as the lands within a 250 m buffer of the land-take boundary for the Proposed Development, as well as the associated upstream and downstream

catchments. This made provision for, inter alia: link roads, re-aligned side roads, accommodation tracks, re-aligned watercourses, and other related infrastructure.

Wider projects were considered on a case-by-case basis for screening in or out of this chapter's assessment based upon data confidence, effect-receptor pathways and the spatial/ temporal scales involved. Given the significant geographical scale involved, a robust scoping exercise was carried out to identify only those projects with potential for likely significant cumulative effects on IEF watercourses in combination with the Proposed Development.

Cumulative impacts on aquatic biodiversity associated with water quality impacts are not included in this section. Please refer to Section 19.9.5 Aquatic Biodiversity for all water quality related cumulative aquatic biodiversity impacts.

The following rationale was applied to the cumulative impact assessment:

- Projects were screened into the water CIA where they involve discharges to the IEF watercourses affected by the Proposed Development, and where those discharges had the potential to increase the volume of runoff from the development. This included a number of larger housing developments whereby it was assumed they could overlap in the construction phase with similar potential for increased runoff.
- Large infrastructure projects with direct physical impact on watercourses, e.g., proposed flood relief schemes, were screened in, depending on their location in relation to the Proposed Development.
- Larger active travel / greenway projects were screened in where they were deemed to be of a scale whereby they would be increasing the extent of hard surfacing or watercourse crossings that have potential to restrict flows or increase the volume of run-off during construction or operation.
- Small scale active travel / greenway projects were screened out where they involve a repurposing of existing hardstanding or existing road carriageway, particularly if they had received consent as of November 2025. These projects are not likely to increase run off volumes.
- Projects were screened out where they have received planning permission and are likely to be constructed in advance of the Proposed Development, and where a site-specific flood risk assessment (if required) found no increase in flood risk from the project, such that no cumulative effects with the Proposed Development are foreseen.
- Projects were screened out if they share no hydrological connectivity (no pathway) or a very tenuous pathway that could not reasonably have potential for cumulative effects, i.e., occurs in a separate surface water body or has extremely limited footprint within the same river water body as the Proposed Development. For example, Lettergull Wind Farm is c.1.0 km east of Section 3 but occurs almost entirely within a separate waterbody. A fraction of the project red line boundary extends into the dry, upper reaches of a separate Swilly Burn_030 tributary area (not affected by the Proposed Development), but with no identified watercourse interaction. Professional judgement was applied in these cases so as to provide focus only upon potential for likely significant cumulative effects.
- One-off housing projects and other projects of similar scale were screened out, as these have low likelihood of increased run off or flood risk.

A total of 45 projects were screened into the Water CIA, as set out in Table 19-5.

Of the projects screened in but not yet submitted for planning approval, it is reasonable to assume none of these will have permission granted unless the individual project incorporates design, best practice and bespoke measures to mitigate likely significant effects identified for those projects which includes, at a minimum, attenuation of surface water discharges to greenfield run off rates.

19.9.7.1 Cumulative Effect of all Screened in Projects

The review of all screened-in plans and projects demonstrates that, while several developments share hydrological connectivity with the Proposed Development, any potential cumulative impacts are limited to

short-term construction-phase effects, such as temporary increases in runoff, localised disturbance to conveyance, or minor alterations to floodplain behaviour during high-flow conditions. These impacts are consistently assessed as indirect, temporary and not significant.

All projects, including the Proposed Development, are required to implement robust design measures, best-practice construction methodologies, and tailored mitigation for flood-risk and water-quality protection, which together effectively avoid the potential for likely significant cumulative impacts. During the operational phase, any cumulative effects are predominantly neutral, with certain flood-relief schemes offering **minor, localised positive** effects that do not propagate downstream or meaningfully influence the wider catchment.

When all screened-in projects are considered in combination with the Proposed Development, the cumulative effects during both construction and operation remain not significant in EIA terms, and **no likely significant cumulative impacts** on flood-risk behaviour, hydrology, or water-dependent receptors are anticipated.

Table 19-5: CIA Projects Screened in for Water

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR1	Section 3 River Finn crossing: N14/ N15 to A5 Link (connecting to proposed Trunk Road T3).	A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3).	Close hydrological connectivity exists: Potential cumulative flood risk could occur during construction. The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operation to avoid adverse effects on flood conveyance.	<p>Construction Phase: Upstream of Mourne /Foyle confluence related primarily to N14/N15 A5 link bridge (connecting to proposed Trunk Road T3): Indirect temporary negative not significant</p> <p>River Foyle downstream Mourne confluence: Intermittent, short term-negative, not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR2	Section 1 Burn Durnett sub-catchment and River Finn	Barnesmore Gap Greenway. New greenway between Donegal Town and Ballybofey. (Phase 3 Design and Environmental Evaluation) potential Q1 2026 submission to ACP	<p>If works occur concurrently in Flood Zones A/B it could cumulatively alter local conveyance and floodplain storage leading to short-duration, localised backwater effects and temporary increases in flood levels/velocities during high flows.</p> <p>The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phases to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR3	Section 3: Runs along River Finn / Foyle corridor west bank	Carrigans to Lifford Greenway Castlefin and Foyle Valley Greenway Link (Phase 2: Public Consultation)	<p>Close hydrological connectivity exists: Emerging Route Corridor generally follows western bank of tidal River Foyle with crossings of River Deelee and Swilly Burn, although these may / may not be new crossings (e.g., potential repurposing of existing R265 bridge (Swilly Burn). Relatively little culvert potential (apart from land drains). Potential cumulative flood risk could occur during construction and operation phase.</p> <p>The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phases to avoid adverse effects on flood risk mitigations for flood-risk management during construction and operational phases to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Neutral, not significant</p>

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR4	Section 2: Urban Letterkenny circa 2 km upstream of proposed River Swilly Bridge	LK Green Connect, Letterkenny. Urban walking, cycling and public realm infrastructure development. (Design) Potential Q1 2026 submission	Nearby hydrological connectivity exists: Conceptual design shows interaction with small tributaries of River Swilly in urban Letterkenny (Sprackburn, Port Bridge Stream). Likely some small culvert potential and excavations for wetland creation. Similar construction phase emissions to water, though smaller source areas and aquatic habitats of River / Lough Swilly as for Proposed Development. LK Green Connect has potentially positive operation phase effects owing to increased flood storage within the created urban wetland, but the magnitude of that positive effect is unlikely to be measurable at the proposed Swilly Bridge in Section 2.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR7	Section 1: Immediately east of Proposed Development N15 tie in at nearest 200 m from River Finn SAC	N15 Corcam Bends (Stage 3 – Preferred Route Selection) Potential ACP submission expected 2026	Close hydrological connectivity exists: N15 Corcam Bends (Stage 3 – Preferred Route Selection). Preferred Option B entails ~1 km of road upgrade immediately east of the proposed N15 tie-in, including a Mullaghagarry culvert upgrade (Site W1-20), with tributary linkages to the River Finn SAC just downstream of the Proposed Development. If works occur concurrently with the Proposed Development works, overlapping construction could particularly during high-flow events lead to short-duration increased flood risk. The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phase measures to avoid adverse effects on flood risk.	Construction Phase: Indirect short-term negative not significant Operation Phase: Neutral, not significant
PR6	Section 3: Circa 1.8 km downstream of proposed N14/N15 to A5 Link Bridge	Station Road, Lifford Community Park between Lifford in Co. Donegal and Strabane in Co. Derry (ACP Grant with Conditions 14/02/23)	Nearby hydrological connectivity exists: The proposal includes a clear span cycle/foot bridge over the tidal River Foyle a short distance downstream of the confluence of the River Mourne and River Finn. It includes and landscaping east and west of the river covering 22 ha (14.9 ha Lifford side; 7.8 ha Strabane side). The site has flood protection on both banks (embankments). It includes SuDS measures to attenuate/treat hard surface run-off. Includes instream works for new ramped slipway (boats) and stepped access (kayaks), plus parking areas, amenity facilities, pathways and an access road. There is a realistic pathway for cumulative flood-risk effects, particularly during construction when in-channel works, earthworks and surface-water runoff from this project could overlap with those of the Proposed Development. The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phase measures to avoid adverse effects on flood risk.	Construction Phase: Indirect short-term negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR14	Section 1	Ballybofey and Stranorlar Flood Relief Scheme	<p>Close hydrological connectivity exists: The Ballybofey Stranorlar Flood Relief Scheme (BSFRS) includes for the development of appropriate flood-relief measures along the River Finn and connected urban tributaries (including Burn Daurnett) within the Twin Towns. The scheme's purpose is to improve protection to the 1% AEP (1 in 100-year) fluvial event, with a design principle that measures do not increase flood risk elsewhere.</p> <p>If works occur concurrently with the Proposed Development works, temporary flood-relief construction activities (e.g., installation of local defences, culvert works, minor reprofiling) could briefly alter local conveyance/floodplain behaviour during high-flow events and potentially increase flood risk. In operation, BSFRS is intended to reduce local flood extents/frequency in Ballybofey–Stranorlar; in cumulative terms at the TEN-T Section 1 receptors (e.g., River Finn crossing), any positive interaction is likely to be localised/modest, with the scheme designed to avoid increasing flood risk downstream.</p> <p>The Contractor will be required to include design, best practice and bespoke mitigations for both pollutant-loss prevention and flood-risk management during construction and operation phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Minor positive, not significant</p>
PR16	Section 1 and 3	Castlefinn Flood Relief Scheme	<p>If works occur concurrently with the Proposed Development works, overlapping temporary activities could cumulatively and briefly interact with local conveyance/floodplain behaviour during high flows and potentially increase flood risk. In operation, the Castlefinn scheme is intended to reduce local flood extents/frequency in Castlefinn while avoiding downstream worsening; any positive cumulative interaction at Section 1/Section 3 receptors is expected to be localised/modest.</p> <p>The scheme will be required to include design, best practice and bespoke mitigations for both pollutant-loss prevention and flood-risk management during construction and operational phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Minor positive, not significant</p>
PR15	Section 3	Raphoe Flood Relief Scheme	<p>The proposed infrastructure has been designed to prevent flooding in Raphoe town during high flow events up to the 1% AEP flood event.</p> <p>No significant effects are anticipated in relation to increased water volumes in the Swilly Burn, Raphoe Watercourse or Swilly Burn Tributary or increased flood risk downstream of the diversion channel outfalls as a result of the Proposed Development.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase:</p>

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
			<p>If works occur concurrently with the Proposed Development works, overlapping temporary activities could cumulatively and briefly interact with local conveyance/floodplain behaviour during high flows and potentially increase flood risk.</p> <p>The scheme will be required to include design, best practice and bespoke mitigations for both pollutant-loss prevention and flood-risk management during construction and operational phase to avoid adverse effects on flood risk.</p>	Neutral, not significant
PR13	Section 1 and 3	Lifford FRS	<p>Close hydrological connectivity exists: An emerging Preferred Option for the Lifford FRS has been identified. The currently Proposed Development consists of new flood walls and embankments along the River Foyle generally along the line of existing walls and embankments to protect the town from flooding. The Proposed Development has not yet been submitted for scheme confirmation under the Arterial Drainage Act (ADA) and is therefore subject to change.</p> <p>If works occur concurrently with the Proposed Development works, overlapping temporary activities could cumulatively and briefly interact with local conveyance/floodplain behaviour during high flows and potentially increase flood risk.</p> <p>The scheme will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR12	Section 2	Letterkenny Water Supply Zone (WSZ) Upgrade	<p>If works occur concurrently with Proposed Development, overlapping trenching/river-crossing works could briefly interact with local conveyance/floodplain behaviour during high flows and potentially increase flood risk. In operation, there is no expected impact.</p> <p>The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational-phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect short-term negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR19	Section 2	Warehouse Storage Facility	<p>If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events.</p> <p>The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR21	Section 2	Proposed development at Listellian, Letterkenny, Co. Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. Operational impacts are limited due to the substation's relatively small impermeable footprint compared to the Proposed Development. The Contractor will be required to include design, best practice and bespoke mitigations for flood-risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR29	Section 2	IDA Business Park	Likely significant cumulative effects include potentially increased runoff during earthworks and drainage installation, as well as temporary changes to local conveyance and floodplain behaviour. Operational impacts are limited to additional impermeable surfaces and stormwater discharge, which may marginally influence local runoff patterns when combined with TEN-T drainage systems. The Contractor will be required to include design, best practice and bespoke mitigations for both pollutant-loss prevention and flood-risk management during construction and operational phase to avoid adverse effects on water quality and flood conveyance.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR18	Section 3	Proposed development in Drumnahaogh, Letterkenny Po, Co. Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR31	Section 1	Proposed development in Ballyboe Lisnennan and Kilty , Letterkenny, Co. Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR35	Section 2	Proposed development in The Beeches, Navenny , Ballybofey	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR36	Section 2	Proposed Development at Errigal College, Windyhall , Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR39	Section 2	Proposed development at Woodpark , Letterkenny,	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR45	Section 2	Proposed development at Ballymacool, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR46	Section 2	Proposed infilling of lands at Ballymacool, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR51	Section 2	Proposed development at Illistrin National School, Ellistrin	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR52	Section 2	Proposed development at St. Eunan's College, College road, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR53	Section 2	Proposed Development at Amalfi Court, Lisanennan Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR54	Section 2	Proposed Development at Windyhall Road, Windyhall, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR55	Section 2	Proposed Development at Ramelton road, Ballyboe Lisnennan & Magheranan, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR9	Section 2	Proposed works at Biogas plant at Glenmore Estate, Aghaveagh, Ballybofey	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR57	Section 3	Proposed sports facilities at Lifford Common, Lifford, County Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR58	Section 2	Proposed Development at Killyclug, Letterkenny, Co. Donegal	Close hydrological connectivity exists: The development includes for the provision of two commercial buildings and associated site works. If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR59	Section 2	Proposed Development at Killyclug, Letterkenny, Co. Donegal	Close hydrological connectivity exists: The development includes for the provision of five commercial units and associated site works. If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR17	Section 2	Proposed LPG facility at Bunnagee, Letterkenny, Co. Donegal.	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR64	Section 3	Proposed Biogas facility at Maylin, Newtowncunningham, Co. Donegal.	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR60	Section 2	Proposed agricultural facilities at Rann, Letterkenny, Co. Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR61	Section 2	Proposed development at Paddy Harte Road & Pearse Road, Letterkenny, Co. Donegal	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR62	Section 2	Glencar Irish and Glencar Scotch Residential Development	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR63	Section 2	Carnamuggagh Lower / Knocknamona, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR66	Section 1	Twin Towns Old Railway Line Cycleway	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR68	Section 2	Northern Network Project Glencar Scotch, Glencar Irish, Windyhall Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR69	Section 2	Letterkenny Temporary Transport Hub	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR70	Section 2	Letterkenny Active Travel Projects – Ballyraine Road, Circular Road, High Road, Ballymacool Road, Mountaintop, Ballyraine, Gorteele Road, Old Farm Road	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant
PR77	Section 2	Cathedral Quarter Park	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	Construction Phase: Indirect temporary negative not significant Operation Phase: Neutral, not significant

PR	Project Location Relationship	Project Type (Planning Status)	Screened In Project – Description of Potential Cumulative Effect	Significance of Cumulative Residual Effect (with mitigation implemented)
PR80	Section 3	Lifford Common Residential Development	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR81	Section 2	Ballymacool, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR82	Section 2	High Road, Letterkenny	If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>
PR87	Section 3	Development at Melmount Road/Beechmount Avenue, Strabane	<p>Close hydrological connectivity exists: The project consists of a proposed residential-led mixed use development comprising residential units, retail units, office space, multi-functional space and associated site works.</p> <p>If works occur concurrently with the Proposed Development works, temporary construction activities could briefly increase runoff during high rainfall events. The Contractor will be required to include design, best practice and bespoke mitigations for flood risk management during construction and operational phase to avoid adverse effects on flood risk.</p>	<p>Construction Phase: Indirect temporary negative not significant</p> <p>Operation Phase: Neutral, not significant</p>

19.9.8 Air Quality

The extent of the ZOI used for the cumulative effects assessment in Chapter 12: Air Quality was determined to be 250 m on the basis that the Proposed Development is considered a major source of dust.

At a construction site there is a risk that dust may cause an impact to sensitive receptors near the source of the dust generated. There is the potential for cumulative construction dust impacts where construction is being undertaken within 500 m of the Proposed Development (where construction phases coincide). There is potential for likely significant cumulative effects to arise with the projects, as listed in appendix C19.02, pairwise with the Proposed Development.

The following projects were screened in for likely significant cumulative effects on Air Quality:

- Greenway, active travel projects, cycleways and park projects were screened in for likely significant cumulative effects on Air Quality, these projects will have a **long-term net positive impact** on air quality in the local area due to a reduction in car usage and their associated emissions.
- Flood relief schemes (FRS), and construction projects were also scoped in as they will have a **slight negative** impact on air quality during the phase, but overall this will be **imperceptible** in terms of EIA.
- General dwellings, with minor construction emissions were also considered.

Construction and Operational Dust

Proposed projects in the surrounding area, will be required to keep dust emissions below the guideline of 350 mg/m²/day (for non-hazardous dusts)⁸. Therefore, cumulative dust impacts from other local projects will have a **slight adverse impact** on properties within 50 m of major construction developments if the construction phases were to coincide. The impacts predicted are to be of local spatial extent, short term duration, intermittent and low reversibility, and imperceptible once mitigation measures are in place. This is not significant in EIA terms.

Construction and Operational Traffic

Cumulative construction traffic impacts could occur where other construction projects are being undertaken at the same time as the construction phase of the Proposed Development. However, the proposed construction traffic at the Proposed Development will be minimal and is below the scoping criteria for Air Quality, therefore, the predicted construction traffic cumulative impact is **imperceptible**.

The Climate Action Plan 2025 in Ireland is committed to achieving a net zero carbon energy systems objective for Irish society and in the process, create a resilient, vibrant and sustainable country. The Irish Government will take the lead on this agenda through this plan in defining a roadmap to this goal and initiating a coherent set of policy actions. The CAP25 is predicted to improve air quality associated with operational traffic. The increase in growth of electric vehicles (EV) is accounted for in the DMRB Screening Method. Therefore, the change will be considered **not significant**.

There are extant permissions within the vicinity of the Proposed Development for a number of dwellings and / or dwelling extensions. Any new community members arising from these potential developments will be affected by the construction and operational phases as set out above for the existing resident if they are located within 250 m of the Proposed Development.

The increased population from any new residential dwellings will increase traffic in the area during operation. However, the increase will be imperceptible and therefore the cumulative impact on local receptors and the surrounding sensitive ecosystems is considered **negligible**. As, the sensitive ecosystem is a High sensitivity receptor the significance of impact is classed as **slight adverse**, which is **not significant** in EIA terms.

⁸ [4950e008-9dfb-4701-96b3-0d281aa92281.pdf](#)

The active travel projects and greenways listed above, in conjunction with active travel within the Proposed Development are in line with CAP25 policy and will have a **positive impact** on this modal shift.

19.9.8.1 Cumulative Effect of all Screened in Projects

Cumulatively the above infrastructure projects together with the Proposed Development has potential for a short-term **slight adverse local** air quality impact from construction. This is **not significant** in EIA terms.

19.9.9 Climate

The Zol for climate includes the national environment (Ireland). Effects arising from climate emissions and climate adaptation are considered to impact on a national level. National, regional, and local data has been considered where relevant and available. Carbon dioxide (CO₂e) emissions have a global climate warming effect. This is regardless of their rate of release or location. This is unlike pollutants that affect local air quality where the rate of release, location, and prevailing weather, as well as the amount of pollutant, determines the local concentrations and the impact. Any potential transboundary impacts on climate have therefore been considered and assessed part of this chapter, as the Zol includes both the Republic of Ireland and Northern Ireland.

Local ambient concentrations of CO₂e are not relevant and there are no limits or thresholds that can be applied to particular sources of carbon emissions. Any amount of CO₂e released into the atmosphere will contribute to climate warming, the extent of which is determined by the magnitude of the release. Although CO₂e emissions are typically expressed as kilograms or tonnes per year, there is a cumulative effect of these emissions because CO₂e emissions have a warming effect which lasts for 100 years or more.

The Climate Action and Low Carbon Development (Amendment) Act 2021 introduced the national climate objective into the 2015 Act at Section 3 thereof which states:

“The State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy.”

For the purpose of enabling the State to pursue and achieve the national climate objective the 2015 Act commits the development of carbon budgets/ceilings for each sector, the CAP25 and the NAF.

The following were screened in for likely significant cumulative effects on Climate:

- Greenway, active travel, cycleways and park projects were screened in for potential cumulative effects on Climate, these projects will have a **long-term net positive** impact on climate and our carbon budget due to a reduction in car emissions and a move to active travel.
- Construction projects were also scoped in as they will have a **slight negative** impact on climate.
- General dwellings, with minor construction emissions were also taken into account.
- Flood relief schemes (FRS) were all scoped in as they will have a **net positive** effect on climate, due to their long-term climate adaptation impact which will bring resilience to the local area.
- All Biogas Renewable Energy Facilities were also scoped in, as these will have a **net positive** impact in regard to Climate as the schemes support decarbonisation and are in line with our carbon budgets and CAP25.

Estimated traffic volumes associated with the A5 WTC (PR1) have already been considered in the carbon assessment. As such there is **no additional cumulative impact**.

19.9.9.1 Cumulative Effect of all Screened in Projects

Cumulatively the above infrastructure projects together with the Proposed Development has potential for a **minor adverse climate impact** from construction. This is **not significant** in EIA terms.

19.9.10 Noise & Vibration

Noise & Vibration has considered projects and developments within 300 m of the Proposed Development for the operational phase. For the construction phase, this distance could be further depending on the nature of the activity, especially in relation to piling, blasting and material haulage on public roads.

Not all projects will have likely significant cumulative noise and vibration effects with the Proposed Development. Projects may be at a sufficient distance from the Proposed Development such that there are no cumulative noise or vibration effects at sensitive receptors. Similarly, if projects do not occur at the same time as the Proposed Development, there will be no cumulative noise and vibration effect.

The following projects were screened in for likely significant cumulative effects on Noise & Vibration:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR7-** N15 Corcam Bends Active Travel and Road Realignment
- **PR12-** Letterkenny Water Supply Zone Upgrade
- **PR13-** Lifford FRS
- **PR14-** Ballybofey – Stranorlar FRS
- **PR20-** Sweeney’s Spar Express
- **PR21-** 110 kV Substation at Listellan
- **PR29-** ABP No. 2350662- IDA Business Park
- **PR66-** Twin Towns Old Railway Line Cycleway
- **PR76-** Donegal Bundle 2 Flood Relief Scheme for Ballybofey-Stranorlar
- **PR80-** Lifford Common Residential Development

The impact assessment presented in Chapter 14 assesses operational phase noise with the N14/N15 to A5 Link cross-border to a proposed Trunk Road T3 and the A5 WTC in Northern Ireland (PR1). Appendix C14.5 Operational Results without Cross-border Link assesses the operational noise should the N14/N15 to A5 link not proceed. The noise mitigation measures presented in Section 14.8.2 of Chapter 14 Noise & Vibration account for traffic volumes with and without a cross-border link with the A5 (the N14/N15 to A5 Link) that will join with a proposed Trunk Road T3 and the proposed A5 WTC in Northern Ireland.

Barnesmore Gap Greenway (PR2) and Twin Towns Old Railway Line Cycleway (PR66) may have a spatial and potential temporal overlap with the construction phase of the Proposed Development in Ballybofey and Stranorlar and the new active travel aspects of these projects may necessitate the use of heavy plant and machinery. However, construction works associated with these projects are likely to be of a much smaller scale compared to those required for the construction of the Proposed Development and **no significant cumulative impacts** are expected. During these projects’ operational phases, noise emissions will be minimal and there will be no cumulative impacts.

N15 Corcam Bends (PF7) also has spatial and potential temporal overlap with the construction phase of the Proposed Development and the road realignment aspect of this project will necessitate the use of heavy plant and machinery. However, the extent of the project is relatively small and proposed works are likely to be short in duration with the cumulative impacts likely to be **negligible**. No cumulative negative impacts are expected as part of this project’s operational phase.

The Letterkenny Water Supply Zone Upgrade (PR12) is relatively close to the Proposed Development (e.g. works at Lurgybrack) and the type of works described may require the use of heavy plant and machinery. If there is temporal overlap with this project, it is likely that there will be an increase in cumulative noise levels during the construction phase. The extent of the construction plant required as part of this project is not known at this stage and therefore, there is a potential significant cumulative impact. Liaison between project teams will minimise disruption and construction duration. This will reduce potential cumulative impact but where impacts are identified, they are likely to be **significant, albeit localised**. This project will need to consider the Proposed Development as part of its cumulative impact assessment.

The Lifford FRS (PR13) and the Ballybofey – Stranorlar FRS (PR14) are sufficient distance from the Proposed Development and of a small enough scale to have **no likely significant cumulative impact**.

There are six Inactive Plant Commissioning (IPC)/IEL licences listed within 15 kilometres of the Proposed Development, none of which will have any cumulative effect. There are no Seveso II sites within the study area.

The proposed works at Sweeney's Spare Express at Ballyraine (PR20) has spatial and potential temporal overlap with the construction phase of the Proposed Development. However, the extent of the project is relatively small and proposed works are likely to be short in duration. Therefore, **no likely significant cumulative** impacts are expected.

The Letterkenny 110 kV substation (PR12) is located adjacent to the N13 tie-in in Section 2 of the Proposed Development. The project proposes the replacement of an existing AIS substation with a GIS substation on adjacent lands to the south. Construction will take approximately 24 months and is expected to commence in Q1 2026. This project has spatial and potential temporal overlap with the construction phase of the Proposed Development. However, during the construction phase, the noise environment for NSLs in proximity to this project will be dominated by construction works at the proposed substation works and any cumulative impacts from more distant construction activities associated with the Proposed Development will be **not significant**.

The Ballybofey-Stranorlar FRS (PR14) has spatial and potential temporal overlap with the construction phase of Section 1 of the Proposed Development and works associated with this project are likely to necessitate the use of heavy plant and machinery. Assuming both construction phases are undertaken simultaneously, there is potential for significant cumulative effects. However, given the difference in planning timelines between this project and the Proposed Development, this temporal overlap is unlikely to occur. This project will need to consider the Proposed Development as part of its cumulative impact assessment.

19.9.10.1 Cumulative Effect of all Screened in Projects

Cumulatively with the above screened in projects, no likely significant cumulative effects are expected to occur during the operational phase of the Proposed Development. During the construction phase, there is potential for **short-term adverse impacts** due to requirements to use heavy plant and machinery and the likelihood of spatial and/or temporal overlap. However, these cumulative impacts are not expected to be significant.

19.9.11 Material Assets (Agriculture)

The zone of influence for the consideration of cumulative effects on agriculture is 1 km from the centre line of the Proposed Development. Beyond 1 km landtake and severance/division will not have a significant effect.

The projects listed below have been screened in for likely significant cumulative effects on Material Assets (Agriculture) because they present credible interaction pathways with agricultural receptors. These include:

- Permanent landtake (major transport works, quarry extension, and infrastructure footprints),
- Temporary construction-phase occupation and disturbance (water mains installation, greenway construction, flood relief earthworks),
- Severance and alteration of farm access (road realignments and active travel works),
- Topsoil loss or degradation and reinstatement risk (trenching and excavation for mains, roadworks and quarrying),
- Drainage and hydrological modification (flood relief embankments, reservoir works and roadside drainage changes),
- Compaction from plant movements, and potential off-site effects such as dust and sedimentation.

The following projects were screened in for likely significant cumulative effects on Material Assets (Agriculture):

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR7-** N15 Corcam Bends Active travel and Road Realignment
- **PR12-** Letterkenny Water Supply Zone Upgrade
- **PR13-** Lifford FRS
- **PR15-** Raphoe Flood Relief Scheme
- **PR16-** Castlefinn Flood Relief Scheme
- **PR14-** Ballybofey & Stranorlar Flood Mitigation Measures

The proximity of several projects to the Proposed Development increases the likelihood of measurable local cumulative impacts at the holding and electoral division scale; however, impacts are highly site-specific and will depend on exact footprints and mitigation (topsoil handling, reinstatement, drainage reconnection).

From an agricultural perspective there are, and will continue to be, demands for agricultural lands from future planning applications. Research of applications has shown that there will be a cumulative effect of these additional land takes together with the land take required for the Proposed Development. However, this will not impact on agriculture from a national (Ireland), and regional (Donegal) perspective and is **not considered to be significant**.

The effects from a local perspective (Electoral Divisions) and on individual land holdings will be slight as the availability of agricultural land for purchase or rent in the immediate vicinity of individual holdings will be reduced but **no likely significant cumulative impact** is anticipated when considering localised assessment of agricultural landholdings.

19.9.11.1 Cumulative Effect of all Screened in Projects

The proximity of several of the projects listed above to the Proposed Development increases the likelihood of measurable local interactions at the holding and electoral division scale; however, impacts are highly site-specific and will depend on exact footprints and mitigation (topsoil handling, reinstatement, drainage reconnection).

From an agronomic perspective, the Proposed Development occupies only a very small fraction of the overall agricultural land resource in the study area. Agricultural impacts are inherently local and driven by parcel-specific factors (soil quality, enterprise, parcel shape, access and farm infrastructure). These local effects will be addressed through the parcel-level assessments and the mitigation measures set out elsewhere (topsoil handling and storage, access provision, reinstatement and drainage reconnection). Consequently, while isolated, site-specific effects at the holding or electoral division scale remain possible, it is highly unlikely that the Proposed Development in combination with the other listed projects would result in a measurable, region-scale loss of productive agricultural land sufficient to constitute a significant adverse effect on the agricultural resource of the North-West region.

19.9.12 Material Assets (Non-Agricultural)

Each project has been considered on a case-by-case basis for inclusion in this chapter's likely significant cumulative impacts assessment based upon data confidence, effect-receptor pathways and the spatial/temporal scales involved.

19.9.12.1 Non-Agricultural Properties

The Zol for likely significant cumulative impacts arising from land take (including demolition) is based on the area of the individual landholding within the Proposed Development boundary. This boundary is shown in EIA Drawings 16.01 through 16.03 in the Volume D: Book of Drawings.

The land take assessment for non-agricultural properties is an assessment based on the effect of the land take specifically on the individual property receptor. Unless additional land take on a specific property is proposed by another consented project (and there is no evidence of same at the time of writing), then there is no potential for cumulative effects in that respect. Any such scenarios should be considered as part of any acquisition process arising from future projects as applications for planning approval are prepared or other procedures implemented (e.g. 'Part 8' procedures).

While there are land holdings with existing uses and planning permissions in place for future uses, these have been considered in the property-specific assessments, e.g. where there is existing quarry use on a landholding this is noted, and where there is planning permission in place for a new dwelling house which is not fully constructed this is also identified.

19.9.12.1.1 Cumulative Effect of all Screened in Projects

In the event that there is future additional land take from a property identified for land take within the CPO schedule for the Proposed Development, then there is potential for significant adverse cumulative effects on individual receptors. At the time of writing, no such incidence of same is identified and therefore there are no likely significant cumulative impacts with other developments.

19.9.12.2 Utilities

The following projects were screened in for likely significant cumulative effects on Material Assets (Non-Agriculture) for utilities:

- **PR5-** Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge (HA05E.311468)
- **PR13-** Lifford FRS
- **PR14-** Ballybofey – Stranorlar Flood Relief Scheme
- **PR11-** Lettergull Windfarm
- **PR (Various)** General Dwellings

There is potential for likely significant cumulative effects to arise with the projects listed above pairwise with the Proposed Development. This potential exists only where utilities are disrupted at the same time during any simultaneous construction or decommissioning phases with the Proposed Development.

For the Station Road, Lifford – Community Park and Pedestrian / Cycle Bridge (PR5), Lifford FRS (PR13) and Ballybofey- Stranorlar FRS (PR14) there is limited potential for cumulative effects on utilities in the construction phase should the timelines coincide. The potential for any impact or disruption to utility services during the construction or decommissioning phases is predicted to be of local spatial extent, brief to temporary in duration and of high reversibility. There are **no likely significant cumulative impacts**.

A planning application was submitted to DCC for Lettergull Wind Farm (PR11) of 30-year operational life at Momeen, off the R236 approximately 3 km north of the existing N14. The OH power line (Planning Application No. 2051961) for the wind farm was accepted at the end of 2020, enabling for the construction of the wind farm. The Lettergull Wind Farm is sited several kilometres from the Proposed Development and the Proposed Development is not expected to impact on renewable energy; therefore, there are **no likely significant cumulative impacts**.

Both Section 2 and Section 3 of the Proposed Development interact with the Lettergull Wind Farm grid connection. For section 2, the Proposed Development intersects with the future Lettergull Wind Farm grid connection route 38 kV line (Planning Reference No. 20/51961) at two locations at Listellian close to the Letterkenny 110 kV substation. It is expected that construction of the grid connection will be complete in 2026. It is a planning condition of the wind farm grid connection power line that it is undergrounded beneath the proposed mainline where it crosses the Proposed Development.

Consultation has taken place with Lettergull Wind Farm representatives and design levels for the Proposed Development have been provided to Lettergull Wind Farm representatives to allow for the undergrounding of the power line. This ensures no conflict with the Proposed Development works and ensures both can be constructed in accordance with their respective approvals. Therefore, there is **no likely significant cumulative effects** on utilities during the construction phase.

Due to the large geographical scale of the Proposed Development, individual planning applications, such as one-off housing developments, are too numerous to list. There is potential for cumulative effects on utilities during construction phases of local planning applications. However as part of this planning application, correspondence has taken place with all utility providers and where necessary the appropriate diversions have been agreed, therefore **no likely significant cumulative effects** are anticipated.

19.9.12.2.1 Cumulative Effect of all Screened in Projects

Overall, the potential for any impact or disruption to utility services during the construction or decommissioning phases is predicted to be of local spatial extent, brief to temporary in duration and of high reversibility. Consultation with Lettergull Wind Farm and the agreed designs allow for the undergrounding of the power line so as not to conflict with the Proposed Development. The magnitude of the impact is deemed to be **negligible** and the sensitivity of utility assets in the material assets study area is considered to be medium. The cumulative effect will, therefore, be of **slight adverse** significance, which is **not significant** in EIA terms.

19.9.12.3 Waste Management

The following projects were screened in for potential cumulative effects on Material Assets (Non-Agriculture) for waste:

- **PR5-** Station Road, Lifford- Community Park and Pedestrian / Cycle Bridge (HA05E.311468)
- **PR13-** Lifford FRS
- **PR14-** Ballybofey – Stranorlar Flood Relief Scheme
- **PR11-** Lettergull Windfarm
- **PR (Various)** General Dwellings

For the Station Road, Lifford – Community Park and Pedestrian / Cycle Bridge (PR5), Lifford FRS (PR13), Ballybofey- Stranorlar FRS (PR14) and Lettergull Windfarm (PR11) there is likely significant cumulative effects on available waste management outlets for the off-site reuse, recycling, recovery and finally disposal of waste required for both projects taken together during construction.

The implementation of measures to prevent waste being generated on-site for the Proposed Development in the first instance and the potential for re-use and recycling in accordance with the waste hierarchy will ensure that the volume of waste for disposal is minimised. Therefore, the expected waste quantities for the Proposed Development alone are not significant. In combination with PR5, PR13, PR14 and PR11; the cumulative impact is deemed to be not significant considering the likely potential for waste generation from other projects, the opportunities to divert waste from off-site treatment and the amount of inert, non-hazardous and hazardous waste treatment capacity likely to be available in the region in the coming years over the time period for the delivery of the Proposed Development.

Overall, the magnitude of the impact is deemed to be low and the sensitivity of the receptors is considered to be low. The cumulative effect will, therefore, be of **slight adverse** significance for waste, which is **not significant** in EIA terms.

Due to the large geographical scale of the Proposed Development, individual planning applications for general dwellings are assessed as a whole. The quantities of waste that will require off site reuse, recovery or disposal are not significant in a way that they will impact on the available and expected waste management capacities in the region. For materials that are transferred off-site the impact will be of a local or regional spatial extent, permanent duration, continuous and low reversibility. The cumulative effect is therefore considered to be **not significant**.

19.9.12.3.1 Cumulative Effect of all Screened in Projects

Construction of projects within the region will produce mainly C&D waste, a proportion of which will be sent for recycling, further treatment or disposal to landfill. It is anticipated that all these projects will seek to minimise disposal to landfill and manage waste in accordance with the waste hierarchy and relevant policy including the Waste Framework Directive 2008/98/EC and EPA (2023) National By-Product Criteria for Site-Won Asphalt (road plannings) BP-N001/2023.

The projects screened in would generate solid waste from construction and demolition and from operation for management within the regional areas. Waste will be generated over the period of construction for each development. Additionally, waste generation will vary over time as the nature of the projects are multi-year and are undertaken with a phase approach i.e., demolition, excavation, and construction.

The Proposed Development, together with the projects screened in, will add to the need for off-site capacity for recovery, recycling, treatment and disposal of waste to landfill in the event that the construction phases overlap. Considering therefore, the likely potential for waste generation from other projects, the opportunities to divert waste from off-site treatment and the amount of inert, non-hazardous and hazardous waste treatment capacity likely to be available in the region in the coming years over the time period for the delivery of the Proposed Development, it is considered that there will be **no likely significant cumulative effects**.

19.9.13 Cultural Heritage

A review of relevant projects in the context of the Proposed Development was undertaken for cumulative assessment for likely significant effects on the Cultural Heritage resource. The study area considered was defined as 300 m-wide overall assessment corridors (150 m from centre-line) relative to the Proposed Development.

The following projects were screened in for potential cumulative effects on Cultural Heritage:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR3-** Carrigan's to Lifford Greenway and Castlefin and Foyle Valley Greenway Link
- **PR13-** Lifford FRS
- **PR14-** Ballybofey – Stranorlar FRS
- **PR15-** Raphoe FRS
- **PR16-** Castlefinn FRS
- **PR64-PR66 and PR69-PR75-** Active Travel Projects

The proposed N14/ N15 to A5 Link provides a bridging point and tie-in to a proposed Trunk Road T3 and the proposed A5 WTC on the southern banks of the River Finn within Northern Ireland. It has been determined from PR1 Environmental Impact Statement (EIS) that Castletown House HB10/08/007 will be **significantly** and **adversely** effected by the scheme, requiring full demolition. A5 WTC mitigation measures for the house have set out a preservation by record strategy (detailed built heritage survey record). In addition, it is noted that the PR1 route has **slight** impact on the setting of Carricklee gate-lodge HB10/08/004C with mitigation measures of planting and screening assigned.

The Proposed Development (Section 3 N14/N15 to A5 Link including Trunk Road T3) has identified a **moderate impact** on the setting of both Castletown House HB10/08/007 and Carricklee gate-lodge HB10/08/004C during construction and operational phase, with **slight residual impacts** also noted.

Should the PR1 be consented for planning, Castletown House (HB10/08/007) will be demolished. There are no further mitigation measures that can be considered as part of the Proposed Development to reduce this level of impact to the Cultural Heritage feature. The Proposed Development itself will not result in significant effects on Castletown House. Cumulative impact on Carricklee gate-lodge HB10/08/004C is considered **negative medium magnitude impact** on a high value receptor, with a **significant cumulative effect**.

The Barnesmore Gap Greenway (PR2) has a tie-in location near Cultural Heritage receptor M286 (ford) at Goland townland. Improved access provision to the area is considered a positive cumulative impact, of medium magnitude on the overall cultural heritage resource in this locale (of moderate-significant value). This is considered a **positive cumulative impact of moderate significance of effect**.

It is noted that the preferred option for the Carrigans to Lifford Greenway and Castlefin and Foyle Valley Greenway Link (PR3) shares, in part, a scheme area extent with the Proposed Development at Townparks, Coneyburrow and Curraghane (Section 3), including proposed uncontrolled crossing points. The location of souterrain and enclosure site SMR DG070-082--- at Curraghane is located just outside the preferred greenway option with the magnitude of impact deemed low on this medium value receptor. As such, given application of required standard mitigation and best practice measures for the greenway project at design and build stages (i.e. avoidance by design), the cumulative effect of PR3 and the Proposed Development on this cultural heritage receptor is considered a **negative cumulative impact of slight significance of effect**.

The consulted FRS projects are currently in planning design and development stage. Given the requirement for relevant standard mitigation and best practice measures set out to safeguard the Cultural Heritage resource as part of flood relief schemes, a resulting **significant negative cumulative impact** on the Cultural Heritage resource is unlikely.

It is also noted that proposed active travel projects currently in planning and design phase by Donegal County Council along the existing N15 between Cappry and Ballybofey (PR64); Mill Brae NTA Active Travel (PR65) Twin Towns Old Railway Line Cycleway (PR66); the Northern Network Project (PR68), Letterkenny Active Travel Projects (PR69-PR75) will follow existing infrastructure with limited design footprint, and will be delivered following best practice industry standards that provide for appropriate Cultural Heritage mitigation where required. As such, there are **no likely significant cumulative negative effects** predicted for the Cultural Heritage resource with the Proposed Development with any of those projects when considered on a pairwise basis.

19.9.13.1 Cumulative Effect of all Screened in Projects

Having considered the cumulative effect of each screened in project pairwise with the Proposed Development, a **negative significant effect** was noted for Carricklee gate lodge HB/08/004C (A5WTC), a **positive moderate effect** was noted on a historic fording point (M286) on Section 1 (Barnesmore Gap Greenway) and a **slight negative effect** on a souterrain and enclosure site at Curraghlan Northwest Greenway (Lifford-Castlefin).

When collectively considering all of these likely cumulative impacts as a whole, in the context of the Proposed Development namely the Proposed Development with all of the screened in projects, having regard to both the scale and extent of the geographical study area capacity to absorb the screened in projects, as well the likelihood of the delivery of all projects following best practice industry standards with regard to Cultural Heritage mitigation provisions, it is deemed that overall there will be a measurable **negative slight significance of cumulative effect** on Cultural Heritage resource.

19.9.14 Landscape & Visual

Projects and developments within 5 km of the Proposed Development were considered.

The following projects were screened in for potential cumulative effects on Landscape & Visual:

- **PR1-** A5 WTC including the N14 / N15 to A5 Link (where it will connect to a proposed Trunk Road T3)
- **PR2-** Barnesmore Gap Greenway
- **PR18-** ABP No. 2350669- Buildings and Sewage Treatment Plant
- **PR70-** Letterkenny Active Travel – Gortlee Road Active Travel Scheme
- **PR (Various)** General Dwellings

The N14/N15 to A5 Link, including Trunk Road T3 (PR1) is immediately adjacent to the Proposed Development but will not alter the landscape and visual effects predicted in this chapter, due to its close proximity and similar visual characteristics to the existing road network. PR1 will be absorbed into the landscape characteristics of the Proposed Development with **no significant change**. Visual receptors will view both schemes as one.

Barnesmore Gap Greenway (PR2) is approximately 100 m south of Proposed Development. Potential for landscape character and views may be adversely affected if PR2 were to be constructed concurrently with the Proposed Development. Recreational users have a high visual significance and sensitivity, and there will likely be a long-term change over a **moderate** view with **likely significant effects** cumulative localised at this location on Donegal Road. This is the only location where the Proposed Development and the proposed greenway are in close proximity, therefore there are no other areas of cumulative effects anticipated. However, as PR2 is still in the design stage, it is not unreasonable to expect that the greenway design will take into account the design of the Proposed Development and the construction of PR2 in combination with the Proposed Development will **not result in significant cumulative effects**.

The Sewage Treatment Plant (PR18) has the potential to give rise to limited visual effects to the southwest along the N56 for transient and residential receptors, due to the height of the proposed buildings, which are

to 8.1m height. There is potential for landscape character and views to change from this location to a more animated industrial character, though cumulative landscape and visual effects are considered **not significant** as intervening topographical changes and planting associated with the Proposed Development will limit the extent to which both developments are perceived.

The Letterkenny Active Travel Gortlee Road Active Travel project (PR70) interfaces directly with Section 2 of the Proposed Development at Ballyraine Roundabout, to be upgraded with a larger roundabout diameter and wider / more approach lanes to the junction. The two projects have the potential for likely significant cumulative effects for construction phase. As the active travel scheme is similar in nature to the existing baseline it will not be out of place from the upgraded roads as part of the Proposed Development and both will readily be absorbed into the landscape baseline. The significance of effect will reduce for visual receptors with both schemes being viewed as one and **is not considered to be a likely significant cumulative impact**.

Extensive residential developments have been identified but such development will visually blend with existing development forming part of the landscape character and visual baseline. As with all permitted projects residential developments have been approved on the basis that it will comply with current planning and environmental legislation. **No significant cumulative impacts** on landscape character are predicted to occur when any such residential development is considered in combination with the Proposed Development, as planting associated with considered developments and landform variations often restrict the extent to which developments will be read in combination.

Existing housing, roads, forestry, quarries, overhead lines and visible built form have been considered as part of the landscape and visual baseline and are noted in views where visible. The study area, which is already heavily influenced by the existing National Road corridors and connectivity to surrounding local roads is considered to have the capacity to absorb the Proposed Development.

19.9.14.1 Cumulative Effect of all Screened in Projects

When considered together with the other identified projects, the Proposed Development will contribute to a combined pattern of change within an already modified landscape. The receiving environment is characterised by existing transport corridors, settlement edges, and dispersed built form, indicating a medium capacity to accommodate additional developments without experiencing fundamental alteration in landscape character.

Cumulatively, the greatest potential for landscape change occurs during the construction phase, when multiple schemes may introduce concurrent ground disturbance, construction activity, and temporary infrastructure. These effects, while noticeable at a local scale, remain short term, reversible, and largely confined to areas already influenced by human activity. No widespread alteration of key landscape characteristics is anticipated. Therefore, **no likely significant cumulative impacts** are anticipated.

During the operational phase, the cumulative effects of the Proposed Development when taken together with the other projects will be progressively reduced through mitigation planting, reinstatement works, and natural landscape assimilation. The combined developments will read as part of an evolving transport and settlement framework that reflects the existing pattern and function of the landscape. As such, cumulative operational effects will be **low to negligible** across the majority of landscape receptors and therefore **no likely significant cumulative effects** are anticipated.

Higher sensitivity receptors, such as those within recreational landscapes, may experience localised cumulative effects, particularly where the Proposed Development interfaces closely with other amenity focused schemes. However, these effects are geographically limited and do not extend across the wider landscape.

Overall, the cumulative assessment for landscape effects concludes that, while localised cumulative effects may occur, the landscape's existing character and its ability to absorb change ensures that no additional significant cumulative landscape effects are expected at the broader landscape scale and **no likely significant cumulative effects** are anticipated.

Visual receptors during the construction phase, may experience a cumulative magnitude of change that has the potential to increase due to the combined presence of construction traffic, plant, and associated

temporary works elements within shared viewing arcs. This construction activity may give rise to **significant cumulative visual effects**, even where the significance of individual schemes might otherwise be lower if considered in isolation. Such effects are considered to be of a **short term duration, localised and reversible** in nature

During the operational phase, however, the significance of cumulative visual effects is anticipated to reduce over time, particularly following the establishment of proposed mitigation planting and associated landscape integration measures. These interventions will contribute to the attenuation of visual influence, thereby reducing perceived cumulative impacts as vegetation matures and screening improves.

It is noted that no single viewpoint within the study area affords visibility of all identified developments simultaneously. In certain locations, multiple schemes may be visible within the same view; however, their combined appearance will be perceived as a coherent, visually contiguous development pattern rather than as distinctly separate projects.

In summary for visual receptors during the construction phase, **localised, short term**, assessed as **significant** cumulative visual effects are predicted to occur because of the increased activity within the visual envelope, however cumulative visual effects are **not anticipated to be significant** during the operational phase of the Proposed Development.

19.10 Mitigation Measures

With consideration of the mitigation measures detailed in Chapter 6 to 18, only additional mitigation measures are proposed for Barnesmore Gap Greenway (PR2) and Ballybofey / Stranorlar FRS (PR14) to reduce any potential impact of the projects, assuming the unlikely event that the construction phases of either project overlap with the Proposed Development. As stated in Section 19.9.5.1, taking the conservative scenario, and applying the precautionary approach, where: (i) there is overlap between the construction phases of the Proposed Development and either, or both, the Ballybofey / Stranorlar FRS or Barnesmore Gap Greenway Project, and (ii) either the Ballybofey / Stranorlar FRS, the Barnesmore Gap Greenway Project, or both, will require instream construction elements within 1 km of elements that are part of the Proposed Development, on the same watercourse in the same year, then the following mitigation will be applied:

- Phasing of construction elements where they involve instream works on the same channel within 1 km of each other, such that instream works on the same channel do not occur in the same instream works season of May 1st to September 30th of any year.

This measure addresses the identified potential for significant negative cumulative effects of the Proposed Development in-combination with the Ballybofey / Stranorlar FRS and/or the Barnesmore Gap Greenway Project. It is a practicable restriction that can be incorporated into the construction schedule for the Proposed Development which will avoid, prevent and reduce potentially significant cumulative negative effects (water quality degradation and associated effects on aquatic biota; temporary habitat disturbance / fragmentation during construction) on receiving watercourses and aquatic biota.

Any projects detailed in Stage 3 (Section 19.9), without planning consent (such as PR2 and PR14) will need to consider consultation and collaboration with the Proposed Development as part of their planning process.

As part of preliminary design of the Proposed Development, consultation has been progressed, where possible, for projects with planning permission and known overlap with the Proposed Development. For example, consultation has taken place with Lettergull Wind Farm representatives to ensure both can be constructed in accordance with their respective approvals.

19.11 Residual Impacts

Subject to what is set out below in relation to Castletown House, based on the assessments set out above, the likely significant cumulative effects associated with the Proposed Development and each project as identified and considered on a pairwise basis will not result in likely significant cumulative effects to the environment.

Equally subject to what is set out below in relation to Castletown House, the Proposed Development taken together with all other projects and development as a whole which are considered in detail above will not result in any likely significant cumulative effects. The exception being for visual receptors across all screened in projects during construction phase, where **localised, short term, significant cumulative visual effects** were predicted to occur because of the increased activity within the visual envelope. The impacts were temporary and were considered significant in operational phase.

Should the A5 WTC be constructed, Castletown House (HB10/08/007) will be demolished. There are no further mitigations that can be considered as part of the Proposed Development to reduce the level of impact to the Cultural Heritage feature. The Proposed Development itself will not result in any likely significant effects on Castletown House.

19.12 CIA Across all Environmental Disciplines

In addition to considering the likely significant cumulative impacts of the Proposed Development in combination with the other projects on a pairwise basis relevant to each environmental discipline as set out above, an assessment of the likely significant cumulative impacts of the Proposed Development in combination with all of the projects together (that are considered in the cumulative impacts assessments above across all environmental disciplines) was also undertaken. This has shown that due to minimal or no significant cumulative effects within each environmental discipline except Landscape & Visual, there are no likely significant cumulative impacts arising when considered as a whole. As stated above, although the potential for cumulative impacts to visual receptors was identified the effect was isolated to construction phase and considered localised and short-term. Furthermore, no significant impacts were identified during operational phase. As such, the potential cumulative effect in one environmental discipline (Landscape & Visual) was not considered large enough in magnitude to result in likely significant cumulative impacts arising when considering the CIA as a whole.

19.13 Transboundary Effects

The potential for transboundary effects was discussed with relevant discipline leads and assessed within each specialist chapter of the EIAR (**Chapters 6-18**). Only disciplines with potential pathways were considered.

Section 3 of the Proposed Development includes the N14/N15 to A5 Link south of Lifford to the border with Northern Ireland on the River Finn where it will connect to a proposed Trunk Road T3 (A5 WTC to Land Frontier), which in-turn will connect to the proposed A5 WTC. The proposed Trunk Road T3 (of approximately 79 m of new road) will provide a link between the proposed A5 WTC in Northern Ireland and the Proposed Development, meeting at the border between Northern Ireland and Ireland. Refer to Section 4.8 of Chapter 4: Project Description for further details.

The scenarios with and without the N14/ N15 to A5 Link (which is the Proposed Development's connection to a proposed Trunk Road T3 and the A5 WTC) are considered in this EIAR.

In the scenario where the N14/N15 to A5 Link does not proceed at the time of construction of Section 3, the remainder of Section 3 will be constructed. The roundabout at the N14/N15 Lifford Junction including the active travel elements and the part of the N14/N15 to A5 Link up to approximately chainage 0+080 will be constructed. This small section of road will be blocked-off from the roundabout to prevent traffic from entering. This small section of the N14/N15 to A5 Link is necessary to facilitate the construction of the active travel infrastructure and for any potential future construction of the remainder of the N14/N15 to A5 Link to Northern Ireland. In this scenario without the N14/ N15 to A5 Link there is less of a transboundary impact as there will be no construction works across the River Finn and into Northern Ireland.

A summary of the potential for transboundary effects is provided in Table 19-6.

Table 19-6: Transboundary Effects Associated with the Proposed Development

Discipline	Potential Impact	Pathway	Transboundary Effects	Significant Impact
Traffic & Transportation	Yes	Road network	<p>In the scenario with the N14/N15 to A5 Link there will be a reduction in traffic through Lifford and Strabane across the existing Lifford/ Strabane Bridge due to traffic using the Proposed Development including the N14/N15 to A5 Link and a proposed Trunk Road T3 and the proposed A5 WTC. Traffic will redistribute between the various crossings across the River Foyle due to the proposed Trunk Road T3 providing an additional alternative and away from settlements. There will therefore be a positive transboundary impact.</p> <p>In the scenario without the N14/N15 to A5 Link it is not considered that any significant transboundary effects on traffic will arise with the Proposed Development in place. The traffic flows crossing the existing Lifford bridge between Lifford and Strabane will be unaffected by the Proposed Development.</p>	No
Population	Yes	Border settlements	<p>It is not considered that any significant adverse transboundary effects on population receptors will arise with the Proposed Development in place on its own (with or without the N14/N15 to A5 Link).</p> <p>With the Proposed Development including the N14/N15 to A5 Link and a proposed Trunk Road T3 and A5 WTC in place, there is potential for a significant positive effect on the border settlement of Strabane as cross-border connectivity will be improved, particularly with respect to economic development and access to community assets.</p>	No
Human Health	None		<p>It is not considered that any significant adverse transboundary effects on health receptors will arise with the Proposed Development in place on its own (with or without the A5 Link) or with a proposed Trunk Road T3 and A5 WTC in place.</p>	No
Terrestrial Biodiversity	Yes	River Finn and River Foyle, air pollution, noise, habitat loss.	<p>The River Finn forms the border between Ireland and Northern Ireland at the point where the N14/N15 to A5 Link part of the Proposed Development crosses the river south of Lifford. In addition, this section of the River Finn is also part of the River Foyle and Tributaries SAC in Northern Ireland.</p> <p>The Proposed Development includes mitigation measures as detailed in Chapter 9A of the EIAR and the NIS to avoid impacts on terrestrial biodiversity receptors both in the Ireland and Northern Ireland. Also, a clear-span bridge structure has been designed to cross over the River Finn avoiding any instream works.</p> <p>In the scenario with the N14/N15 to A5 Link including connection to the proposed Trunk Road T3 and the application of the mitigation measures detailed in Chapter 9A and the NIS, no significant transboundary impact on terrestrial biodiversity is likely.</p>	No

Discipline	Potential Impact	Pathway	Transboundary Effects	Significant Impact
			In the scenario without the N14/N15 to A5 Link, there will no works within the immediate area of the River Finn and therefore no significant transboundary impact is likely.	
Aquatic Biodiversity	Yes	River Finn and River Foyle	<p>With all mitigations employed the transboundary construction phase effects on aquatic receptors will be indirect, short-term imperceptible negative and not significant. Operational phase effects will be indirect, neutral and not significant. The Proposed Development will not affect the conservation status of salmon, which is the only aquatic Qualifying Interest / Feature species present in the ZoI, i.e., in the older, migrating life stages, and will have no adverse effect on conservation objectives or overall integrity of the River Finn SAC in Ireland and River Foyle and Tributaries SAC in Northern Ireland.</p> <p>In the scenario without the N14/N15 to A5 Link, there will no works within the immediate area of the River Finn and therefore no significant transboundary impact is likely.</p>	No
Land, Soil & Hydrogeology	None		With the N14/N15 to A5 Link, it is proposed to pile the structure and surcharge the embankment on both sides of the bridge. The earthworks proposed will have no transboundary effects. In the scenario without the N14/N15 to A5 Link, there will be no transboundary impact.	No
Water	Yes	River Finn and River Foyle	<p>As the main channel of the River Finn/Foyle is on the border, any impact from the Proposed Development on this river's water quality or flood regime, can be considered to be a transboundary effect as this is a shared waterbody.</p> <p>Hydraulic modelling of the N14/ N15 to A5 Link including connection to the proposed Trunk Road T3 considered the flood regime of the existing Finn/Foyle River together with the impacts of the proposed N14/N15 to A5 Link and Proposed Development. Effects on the flooding of the river considered within an acceptable range and that there were no significant effects on water quality, due to the pollution control measures are employed.</p> <p>In the scenario without the N14/N15 to A5 Link, there will no works within the immediate area of the River Finn and therefore no significant transboundary impact is likely.</p>	No
Air Quality	None		<p>There is potential for cumulative dust impact on the residents in Strabane and the River Finn SAC (Ireland)/ River Foyle and Tributaries SAC (Northern Ireland) during the construction of Section 3 and the N14/N15 to A5 Link including connection to a proposed Trunk Road T3. With the prescribed dust mitigation, this impact is a 'short term slight adverse' impact. In terms of impacts to human health from operational traffic, the modelling of local scale emissions in Section 3 also considered residential and other human receptors east of the border in the area around Strabane.</p> <p>As with the other properties in Section 3, all properties located close to the proposed alignment in Strabane are predicted to experience a 'long term neutral' impact to air quality, which is not significant in EIA terms.</p>	No

Discipline	Potential Impact	Pathway	Transboundary Effects	Significant Impact
			<p>The potential for transboundary impact on the River Finn SAC is considered not significant or in EIA terms, slight adverse.</p> <p>In the scenario without the N14/N15 to A5 Link, there will be no significant transboundary impact.</p>	
Climate	None		<p>The total emissions from road transport presented in Chapter 13: Climate includes the transboundary emissions that will be generated on the Northern Ireland road network. This includes the traffic emissions both with and without the N14/N15 to A5 link including connection to the proposed Trunk Road T3. The impact of the Project on traffic generated emissions is minimal so these transboundary impacts are not considered significant.</p>	No
Noise & Vibration	None		<p>The NRA 2004 guidelines specify a 300m buffer from the centreline of a scheme for consideration of potential noise impacts. The 300m buffer is shown in Drawing No. TT_MGT0337-RPS-P3-S3-DR-Z-EN0701 and does not cross the border between Ireland and Northern Ireland. The zone for vibration effects is substantially less and therefore there are no transboundary effects predicted due to either noise or vibration.</p>	No
Material Assets No Ag		N/A	<p>No transboundary effects on agricultural land take will arise from the Proposed Development as the scheme footprint is wholly within Ireland</p>	No
Material Assets No Non-Ag Land take		Non-ag land take	<p>No transboundary effects on non-agricultural land take will arise from the Proposed Development as the scheme footprint is wholly within Ireland.</p>	No
Material Assets No Utilities and Waste		Utilities and waste	<p>There are no expected transboundary effects on utilities and wastes as a result of the Proposed Development.</p>	No
Cultural Heritage	Yes	NI recorded Cultural Heritage Receptors	<p>It is considered that the transboundary effect of the N14/ N15 to A5 Link including connection to the proposed Trunk Road T3 is of low magnitude and slight significance of effect on the Cultural Heritage resource.</p> <p>Similarly, it is considered that the transboundary effect of the Proposed Development excluding the N14/ N15 to A5 Link is of low magnitude and slight significance of effect on the Cultural Heritage resource.</p>	No
Landscape & Visual	Yes	Strabane LVIA	<p>There is a limited influence of the Proposed Development within the Northern Ireland at the eastern extents of Section 3 and particularly at the bridging tie-in point on the southern banks of the River Finn. Overall, it is considered that the transboundary effect of the Proposed Development is of low magnitude and a Minor and not significant effect on the Landscape and Visual resource in Northern Ireland.</p>	No

Transboundary effects associated with the Proposed Development will **not result in likely significant impacts**.

19.14 References

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