Chapter 20
Interactions and Cumulative Effects

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20. INTERACTIONS AND CUMULATIVE EFFECTS

20.1 Introduction

This chapter of the Environmental Impact Assessment Report (EIAR) presents the Interactions and Cumulative assessment of Effects of the proposed West Clare Railway Greenway Section 1 Kilrush to Kilkee (hereafter, the 'proposed development').

In addition to the assessment of impacts on individual topics presented in the previous chapters of this EIAR, this chapter assesses the potential 'interactions' or in-combination effects arising between one or more environmental factor. Close co-ordination and discussion between the EIA team has informed the preparation of this chapter to ensure interactions and cumulative effects identified by each specialist are adequately assessed.

'Cumulative Effects' in the context of this chapter refers to effects which arise or experience a change in magnitude when the proposed development is assessed in conjunction with other existing and/or approved plans and projects during the construction and operational phase of the proposed development.

This chapter outlines the methodology used to undertake both the Interactions and Cumulative Effects assessment (Section 20.3), describes the environmental factors which interact with other environmental factors during the construction and/or operational phase (Section 20.4) and identifies the policies, plans and projects which may result in cumulative impacts when considered in conjunction with the proposed development (Section 20.5). This chapter should be read in conjunction with all other Chapters, and their appendices, which present related impacts arising from the proposed development.

20.2 Legislation, Policy and Guidance

20.2.1 Legislation

Directive 2011/92/EU ('the EIA Directive'), as amended by Directive 2014/52/EU, requires that the EIAR considers the potential for significant cumulative impacts to arise as a result of (i) the interaction between the various impacts within a single project ('interactions', hereafter) and (ii) the potential impacts as a result of all of the different existing and/or approved projects in the same area as the proposed project ('cumulative impacts', hereafter).

According to the 'Strategy for the Future Development of National and Regional Greenways' published by the Department of Transport, Tourism and Sport (DoTTS) in 2018, a 'greenway' is defined as "…*a recreational or pedestrian corridor reserved exclusively for non-motorised journeys*..."

Section 68(1) of the Roads Act, 1993 (as amended) defines 'cycleway' as:

> "*… 'cycleway' means a public road or proposed public road reserved for the exclusive use of pedal cyclists or pedal cyclists and pedestrians*".

Furthermore, Section (10)(1)(c) of the Roads Act, 1993 (as amended) states that:

> "*A public road, other than a national road or a regional road, shall be a local road*."

In respect of the above definition under Section 68 of the Roads Act 1993 (as amended), the proposed development is considered to be a public road, therefore, this EIAR is prepared under Section 50 of the Roads Act 1993 (as amended).

In addition, an Appropriate Assessment (AA) and Natura Impact Statement (NIS) is also submitted with this application and cumulative effects are considered in this assessment.

20.2.2 Guidance

This Chapter has been prepared with reference to the following guidance documents:

- European Commission (1999) *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions*;
- Transport Infrastructure Ireland (TII) (2023) *Environmental Planning of National Road and Greenway Projects* RE-ENV-07008;
- TII (2024) *Environmental Impact Assessment of Rural Cycleways (Offline & Greenway) – A Practical Guide PE-ENV-01109;*
- Department of Housing, Local Government and Heritage (2018) *Guidelines for Planning Authorities and An Bord Pleanála on carrying out Environmental Impact Assessment*;
- Environmental Protection Agency (May 2022) *Guidelines on information to be contained in the Environmental Impact Assessment Report*;
- TII (2009) *Environmental Impact Assessment of National Road Schemes – A Practical Guide PE-ENV-01114*;
- Department of Housing, Planning and Local Government (August 2018) *Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment*;.
- European Commission (2017) *Guidance on the preparation of the Environmental Impact Assessment Report*;
- European Commission (1999) *Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions*.
- Ministry of Housing, Communities and Local Government of the United Kingdom (2019) *Advice Note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects*.

20.3 Methodology

20.3.1 Interactions

Interactions refer to interactions between effects of the proposed development (in isolation) which relate to two or more different environmental factors of this EIAR. Where a potential exists for significant environmental effects to arise as a result of interaction, the relevant EIAR specialists have considered this and assessed the interactions for significant effects. "*For example, where it is established in the* Hydrology *section that there will be an increase in suspended solids in discharged surface waters during construction, then the Biodiversity section should assess the effect of that on sensitive aquatic receptors*" (EPA, 2022, p. 56). Mitigation measures have been prescribed and considered in the appropriate chapters of this EIAR to address the associated direct, indirect and synergistic effects.

This chapter presents the assessment of interactions between different environmental topics which have been identified and addressed in this EIAR. The determination of interactions was facilitated through an iterative design process that included consultations between designers, environmental specialists and technical specialists. It also considers the potential for mitigation measures prescribed in respect of one particular environmental factor to give rise to unintended negative impacts in respect of one or more other factors, as appropriate.

20.3.2 Cumulative Effects

Cumulative effects result from the addition of many minor or significant effects, including effects of other projects, to create larger, more significant effects (EPA, 2022). Cumulative effects can be caused due to incremental changes by other past, present or reasonably foreseeable projects together with the proposed development.

The Department of Housing, Planning and Local Government's EIA guidance states: *"Effects are not to be considered in isolation but cumulatively i.e., when they are added to other effects. A single effect on its own may not be significant in terms of impact on the environment but, when considered together with other effects, may have a significant impact on the environment. Also, a single effect which may, on its own, have a significant effect, may have a reduced and insignificant impact when combined with other effects."* (DoHPLG, 2018, p. 40).

This assessment identifies the likely direct, indirect, secondary, transboundary, short-term, medium or long-term both positive or negative cumulative effects as a result of the identified plans or projects with the proposed development. The methodology for assessing the cumulative effects is detailed in the sections below. This cumulative assessment considered cumulative effects that are:

1) Likely.
2) Significant.
3) Relating to a future event which is reasonably foreseeable.

20.3.3 Study Area

The appropriate study area for the cumulative effects assessment (CEA) was established as a 1km area around the proposed development, in which projects and proposed projects were considered in conjunction with the proposed development. The study area specified in each of the relevant specialist chapters was considered in the assessment of cumulative effects.

20.3.4 Assessment Methodology

The main aspect of the cumulative effects assessment (CEA) relates to the assessment of existing and/ or approved plans and projects with the proposed development. However, with respect to the proposed development there is potential for cumulative effects associated with other aspects. These have been split into three tiers or types of potential cumulative effects as shown in Table 20-1.

Table 20-1 Tiered approach to identifying and assessing potential cumulative effects

Tier	Description	Level of detail
Tier 1	Development that is functionally or legally interdependent on further development(s) not included in the application for consent approval.	Decreasing level of detail likely to be available
Tier 2	Existing or approved projects (Staged approach). Plans or programmes to include relevant land use, planning and transport plans/strategies relevant to the project.	
Tier 3	'Other' identified projects that are in the public domain/at preliminary design i.e. not yet submitted for planning, but have the potential for cumulative effects with the project.	

The methodology for assessing each of the tiers is described in the sections below.

20.3.4.1 Tier 1 – Methodology for Assessment

The methodology for the 'Tier 1' development(s) relates to development that is functionally or legally interdependent on further development(s) not included in the application for consent approval.

Section 20.5.1 of this chapter concludes that the proposed development is not functionally or legally interdependent on an additional development.

20.3.4.2 Tier 2 – Methodology for Assessment

The methodology for the 'Tier 2' development(s) includes the assessment of existing and/ or approved plans or projects.

Identification of Plans

A list of relevant national, regional and local plans and programmes identified as having the potential to have a cumulative effect with the proposed development has been collated. The assessment of plans is detailed in Section 20.5.2 of this Chapter.

Identification of Existing and/ or Approved Projects

To identify and assess the likely significant cumulative effects with existing and/or approved projects, a three staged approach was adopted which is summarised in the figure below.

The staged approach is informed by *Advice Note seventeen: Cumulative effects assessment relevant to nationally significant infrastructure projects*, published in 2019 by the Planning Inspectorate, an executive agency of the Ministry of Housing, Communities and Local Government of the United Kingdom (MHCLG, 2019) referred hereafter as 'Advice Note 17'.

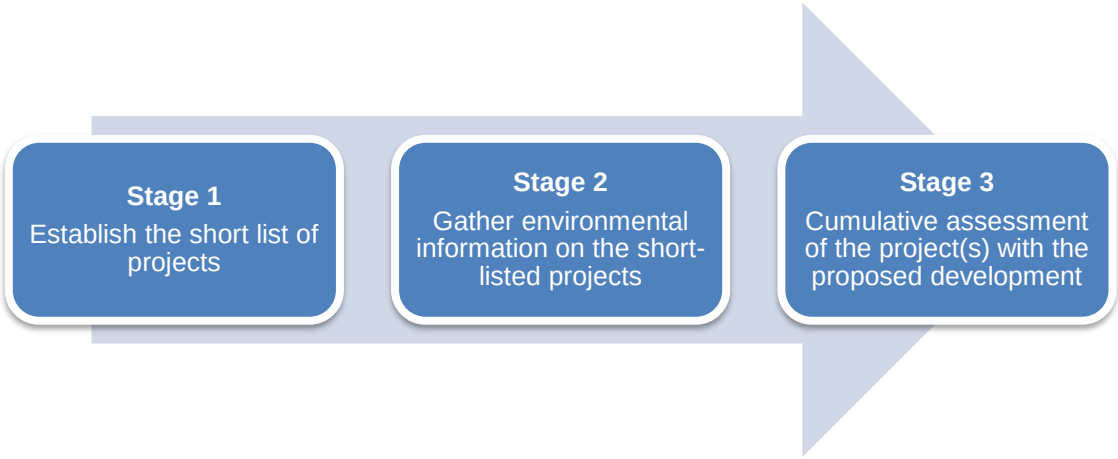

Figure 20-1 Staged approach for Tier 2 cumulative assessment

Stage 1 begins by creating a list of projects of all the existing and/or approved planning applications granted within the past 10 years that fall within the development boundary and the 1km study area identified for the CEA. The list of projects is sourced from the publicly available planning searches and data sources identified below:

- Clare County Council website (planning searches)
- EIA Portal
- An Coimisiún Pleanála (ACP) website (planning searches)

In order to ensure the CEA is proportionate the list of projects was refined to create a short list. The criteria used to screen in and/or out projects for assessment include:

- **Temporal scope:** involves the consideration of the location of the construction, operation and decommissioning of the proposed development, with existing and/or approved projects to establish if there is an overlap and any potential interaction.
- **Scale and nature:** involves the consideration of the nature and scale of the existing and/or approved projects, with the proposed development to establish if they may cause a cumulative effect in relation to each of the environmental factors.
- **Other factors:** involves the consideration of any other factors, such as the nature and / or capacity of the receiving environment to absorb any changes as a result of potential cumulative effect of other projects with the proposed development.

The list was refined for the cumulative assessment using the above criteria, with a focus on large and or significant development applications that have environmental effects and / or are likely to result in cumulative (positive or negative) environmental effects. A particular focus was given to planning applications that have undertaken an EIAR or AA.

It was then determined if the projects are likely to have a significant cumulative effect with the proposed development, on each environmental factor. Professional judgement was also used to supplement the threshold criteria and to avoid excluding 'other projects' that are (a) below the threshold criteria limits but have characteristics likely to give rise to a significant cumulative effects, or (b) below the threshold criteria limits but could give rise to a cumulative effect on account of their proximity to the proposed development. Similarly, professional judgement was applied to exclude 'other projects' that exceed the thresholds but may not give rise to significant effects.

Projects which are likely to have significant cumulative effect with the proposed development were then brought forward to Stage 2.

Stage 2 involves gathering relevant environmental information on the short-listed projects. This is undertaken by undertaking further planning searches and reviewing the relevant planning documentation submitted as part of the statutory planning documentation for the respective projects including, but not limited to, the information such as: EIARs/ EIS, NIS and other planning documentation. The environmental impact assessments completed on these projects and particularly their own cumulative assessments can help inform the likely significant cumulative effects of that project with the proposed development. Whether the project is now part of the baseline i.e. constructed or not yet constructed, is also reviewed.

Stage 3 – **Cumulative assessment**. Once sufficient information has been gathered the cumulative assessment can take place. This final stage involves each of the competent experts reviewing the short-listed projects and environmental information gathered to undertake the respective cumulative assessment.

The information assessed included, but was not limited to, the following:

- The proposed design and location of projects.
- Proposed programme of construction, operation and decommissioning of projects (if known).
- Environmental assessments that set out the baseline environment at locations of projects and the respective effects arising from these projects.

An assessment matrix was developed to streamline the assessment which sets out the key details of the project such as the planning application reference, project description, location, and distance from the proposed development. The environmental information gathered such as the design, location, characteristics of the project and environmental assessments of the project is also reviewed and considered under each environmental factor as appropriate. The

cumulative assessment of effects is undertaken for the construction and operation stages of the proposed development and is presented in Section 20.5 of this chapter. The cumulative assessment identifies the likely cumulative direct and any indirect, secondary, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the project with the proposed development.

In accordance with Advice Note 17, where significant cumulative effects between the proposed development and the identified project arise in relation to one environmental factor the assessment is only required to focus on that aspect only. The CEA is required to be proportionate to the effect being assessed and some effects will need only very brief information to indicate that they have been considered.

Where appropriate, mitigation measures have been prescribed under the respective environmental factor to avoid, prevent, reduce or mitigate the cumulative effects on the receiving environment. Any residual effects after applying the mitigation measures are identified.

20.3.4.3 Tier 3 'Other' Projects

Tier 3 'Other' projects are those that are in the public domain or at preliminary design not yet submitted to the relevant planning authority for determination, and which has the potential for cumulative effects with the proposed development. There is no legal requirement to assess these projects. Tier 3 'other' projects identified within the study areas for environmental factors are assessed in Section 20.5.3 of this Chapter.

20.3.5 Difficulties Encountered

No difficulties were encountered when completing this assessment.

20.4 Interactions Assessment

Table 20-2 shows the likely significant interactions identified for the proposed development which are described in Section 20.4.2 to 20.4.15. Interactions between activities and receptors were assessed by considering the construction and operational phases collectively.

20.4.1 Interactions Matrix

Table 20-2 Matrix of Interactions

Receptor / Activity	Traffic and Transportation	Population	Human Health	Biodiversity	Land and Soils	Hydrology	Hydrogeology	Air Quality	Climate	Noise and Vibration	Landscape and Visual Amenity	Cultural Heritage	Material Assets and Land (Agriculture)	Material Assets and Land (Non-Agriculture)
Traffic and Transportation		✓	✓	✓		✓		✓	✓	✓	✓		✓	✓
Population	✓		✓	✓									✓	✓
Human Health		✓												
Biodiversity					✓	✓				✓	✓			
Land and Soils			✓	✓		✓	✓	✓			✓	✓	✓	

Receptor / Activity	Traffic and Transportation	Population	Human Health	Biodiversity	Land and Soils	Hydrology	Hydrogeology	Air Quality	Climate	Noise and Vibration	Landscape and Visual Amenity	Cultural Heritage	Material Assets and Land (Agriculture)	Material Assets and Land (Non-Agriculture)
Hydrology			✓	✓	✓		✓						✓	✓
Hydrogeology			✓		✓	✓								
Air Quality		✓	✓	✓							✓		✓	✓
Climate			✓	✓		✓					✓			
Noise and Vibration		✓	✓	✓									✓	✓
Landscape and Visual Amenity		✓	✓	✓										
Cultural Heritage		✓									✓			
Material Assets (Agriculture)			✓											
Material Assets (Non-Agriculture)		✓	✓										✓	

20.4.2 Traffic and Transportation

Traffic and Transportation will interact and / or interrelate with the following environmental topics:

- Population
- Human Health
- Hydrology
- Air Quality
- Climate
- Noise and Vibration
- Landscape and Visual Amenity
- Material Assets and Land (Agriculture)
- Material Assets and Land (Non-Agriculture)

20.4.2.1 Population

There will be an increase in heavy goods vehicles (HGVs) and Light Goods Vehicles (LGVs) on surrounding local roads associated with the transport of material and waste during construction, as well as movement of workers to and from the construction site, movements of construction vehicles within and surrounding the site, and other general construction traffic. Traffic impacts will be most notable around the proposed construction compounds and access points, as well as construction works associated with crossings of local roads. Mitigation measures are included in Chapter 5 of this EIAR, as well as the Construction Environmental Management Plan (CEMP) included in the appendices in Volume 4 of this EIAR which specifies the need for a Construction Traffic Management Plan (CTMP) to be developed by

the appointed contactor prior to works commencing. As a result, some negative, not significant, and short-term effects on population are likely.

During the construction phase, temporary additional employment for machinery operators can be expected to arise which will have a slight, positive and temporary impact on the population.

The operational phase will improve connectivity for pedestrians and cyclists between the settlements and to community facilities within those settlements and along the route, and act as a point of interest in the area thus improving overall journey characteristics and amenity for non-motorised user (NMUs). This will ultimately have a significant, positive, long-term impact on population.

20.4.2.2 Human Health

There will be temporary negative impacts to human health during construction due to increased noise and dust from construction vehicles, as well as potential for loose material to migrate from the site of the proposed development on the wheels of machinery and be deposited on nearby public roads. This may pose as a skid risk for vehicles traveling near the construction site. Increase in construction traffic may increase collision risk, particularly at access points to the construction site and along haulage routes, however with the implementation of mitigation measures included in Chapter 5 and in the CEMP, the works are not likely to significantly increase the risk of accidents and collisions during construction. The generation of employment during construction as identified above for the population is likely to have positive, short-term effects on health within the surrounding communities.

The operational phase of the greenway will promote active travel, reducing dependency on carbon-intensive modes of transport, ultimately reducing emissions and improving air quality which will benefit Human Health. The active travel intervention also improves fitness levels amongst users. Interactions with Traffic and Transportation are expected to have positive, long-term impacts on Human Health.

By providing dedicated, segregated and continuous pedestrian and cyclist infrastructure, the proposed development will improve road safety for these users and is likely to reduce the overall likelihood of traffic accidents by removing the need to share road space with traffic. In terms of road safety, moderate to significant, positive, long-term to permanent human health impacts are likely for pedestrians and cyclists, including vulnerable groups, during the operational phase of the proposed development.

20.4.2.3 Biodiversity

Construction vehicles and vehicles at the trailheads during operation present a source of pollutants. There is a risk of pollutants entering watercourses and reaching Poulnasherry Bay and Kilrush Harbour. Pollutants could result in negative effects to aquatic habitats and species and to species which are dependent on these habitats. Management measures will be implemented during construction to manage potential risks. Permeable paving and bio-retention swales have been incorporated into the design at trailheads to manage potential risks to water quality and associated aquatic habitats.

Good construction site hygiene will be employed to prevent the introduction and spread of problematic invasive species thoroughly washing vehicles prior to leaving any site.

During construction, mammals such as Otter may be killed by construction machinery, although these will be slow moving and loud vehicles so the collision risk is very low. During operation, as the proposed development is a greenway, collisions with wildlife by greenway users are very unlikely.

20.4.2.4 Hydrology

Water quality may be impacted by fuel spillages if fuels used for heavy machinery during the construction phase are improperly managed, or vehicles used for maintenance during operation of the greenway. Increased surface run-off may also influence water quality as a result of increased soil compaction due to the use of heavy machinery during works. Washing of truck wheels during construction phase may also result in run-off that has the potential to enter nearby surface waters if not appropriately managed. The implementation of the measures outlined in the CEMP will avoid these issues arising. Increased run-off may also arise in the operational phase at the new carparks located at trailheads. Permeable paving and bio-retention swales are proposed across the car parks which will minimise impacts.

20.4.2.5 Air Quality

During the construction phase, HGV movements may generate dust in addition to producing emissions, both of which have the potential to impact Air Quality. In the operational phase, vehicular emissions may increase around the trailheads due to the availability of parking. Chapter 12 of the EIAR outlines impacts to Air Quality arising as a result of the development and gives details on the mitigations provided to reduce this. Slight, negative, short-term impacts upon Air Quality are expected due to Traffic and Transportation. There may also be an impact during operation due to a decrease in emissions associated with a modal shift from car transport to active travel during operation of the proposed greenway resulting in a slight, positive and permanent impact.

20.4.2.6 Climate

The proposed development will result in a temporary increase in greenhouse gas (GHG) emissions associated with construction traffic, however this will be mitigated through the implementation of mitigation measures as outlined in Chapter 13 Climate. During operation, the greenway will offer an alternative means of transport, with a slight, positive and permanent impact during operation of the greenway.

20.4.2.7 Noise and Vibration

With increased traffic movements during the construction phase, there will be a localised increase in noise levels in the surrounding area. These effects are expected to be moderate, negative, and short-term.

During operation, the impact of the interactions between traffic and noise are considered to be minimal with some localised increase in noise around the trailheads and associated car parks and noise from users of the greenway in areas previously not accessible by the public, however these impacts will be limited to daytime hours and will be imperceptible from most nearby receivers.

20.4.2.8 Landscape and Visual Amenity

Construction vehicles and temporary traffic control measures associated with the construction phase can be expected to have slight, negative, short-term interactions with Landscape and Visual Amenity by reducing the scenic value of the area. During operation, the introduction paving and hardstand across the proposed greenway and associated car parking areas will be mitigated through the implementation of landscaping in accordance with the Landscape Strategy as per Chapter 8 (Biodiversity) and Chapter 15 (Landscape & Visual) of this EIAR. Landscaping will be maintained in accordance with the operational Maintenance and Management Plan (refer to Volume 4 Appendices).

20.4.2.9 Material Assets and Land (Agriculture)

During the construction phase, the additional traffic on the local road network will potentially impact the local agricultural activities where these roads are used by agricultural vehicles. This will have a slight, negative, short-term impact on Material Assets and Land (Agriculture).

20.4.2.10 Material Assets and Land (Non-Agriculture)

During the construction phase, the additional construction traffic on the local road network will result in some short-term disruption for properties in the area which could potentially negatively impact on residential and commercial properties. This will be mitigated by way of traffic management during the construction phase, and disruption to accesses (both temporary and permanent) will be dealt with by way of accommodation works and reinstatement of accesses for the operational phase. This will have a slight, negative, short-term impact on Material Assets and Land (Non-Agriculture). Access to the marina lock gates will be maintained at all times during construction and operation of the proposed development.

20.4.3 Population

Population will interact and / or interrelate with the following environmental topics:

- Traffic and Transportation
- Human Health
- Biodiversity
- Material Assets and Land (Agriculture)
- Material Assets and Land Non-Agriculture)

20.4.3.1 Traffic and Transportation

The availability of the greenway will provide the population with an alternative mode of accessing school, work and recreational facilities which may encourage users who previously chose to use vehicular modes of transportation to shift to an active travel option, reducing the number of vehicles on the road and better aligning with objectives outlined for the future of transport in Ireland. The operational phase of the greenway will have moderate, positive, long-term impacts upon traffic and transport in the region.

20.4.3.2 Human Health

The construction phase of the proposed development has the potential to create disturbance, nuisance and / or annoyance among local residents and workers; particularly due to the generation of noise, dust and visual impacts, which may temporarily affect mental health and cognitive abilities. The community is also likely to experience annoyance from the temporary impacts of traffic management and other effects related to construction activities during the construction phase. In these circumstances the negative impacts are assessed as slight due to the linear nature of the proposed development. There may also be some negative psychological impacts on property owners due to temporary or permanent land take. The generation of jobs during construction may result in some positive, short-term effects on health within the communities.

During operation, the proposed development will significantly improve pedestrian and cyclist access between communities, to community amenities and facilities, having positive psychological impacts on people requiring these services, including vulnerable groups. The greenway is likely to generate some tourism which will benefit to the local economy and may indirectly generate additional employment or business opportunities. This will result in positive psychosocial impacts upon the community.

20.4.3.3 Biodiversity

The operational phase of the proposed development will see an increase in footfall and attract users to areas previously undisturbed by humans, potentially resulting in localised disturbance to flora and fauna. A number of bird sensitive areas have been identified along Poulnasherry Bay which are particularly at risk of noise and visual impacts from greenway users during operation.

20.4.3.4 Material Assets and Land (Agriculture and Non-Agriculture)

The operational phase of the proposed development will see an increase in footfall and attract users to areas previously not accessible and located adjacent to private property including agricultural areas, residences and businesses along the route. Fencing will be implemented to prevent greenway users entering private property. Permanent boundary treatment along agricultural lands will consist of a stockproof boundary that is comprised of timber post and tension mesh wire (per TII standard CC-SCD-00320). Planting and screening will also be implemented along the route to protect the privacy of adjacent properties.

20.4.4 Human Health

There is an interrelationship between the Population and Human Health assessments. There are a number of environmental factors that interact with Human Health as discussed throughout this chapter.

20.4.5 Biodiversity

Biodiversity will interact and / or interrelate with the following environmental topics:

- Land and soils
- Climate
- Noise and Vibration
- Landscape and Visual Amenity

20.4.5.1 Land and Soils

Invasive Alien Plant Species (IAPS) were identified along the proposed development during ecological walkover surveys carried out as part of the biodiversity assessment. In the absence of appropriate management, there is a significant risk that IAPS will continue to spread, either independently of or assisted by construction or operational activities associated with the proposed development. An Invasive Species Management Plan (ISMP) has been developed which includes measures proposed to manage the risk, in particular for Japanese Knotweed, including soil management measures. The successful Contractor will be required to develop an invasive species method statement and Biosecurity Protocol which will be informed by the ISMP and any future surveys, detailed design of the proposed development, cost for treatment, the programme for the scheme and safety.

20.4.5.2 Hydrology

As above, the ISMP will inform the development of an invasive species method statement and Biosecurity Protocol by the successful contractor, and will include a method statement to ensure that water quality is protected.

20.4.5.3 Climate

The proposed development will result in the loss of vegetation during construction resulting in GHG emissions associated with land-clearance activities. However, new planting is proposed along the length of the proposed development which will offset some of these impacts. Refer to Chapter 8 Biodiversity and Chapter 13 Climate.

20.4.5.4 Noise and Vibration

The location of the proposed development adjacent to sensitive bird areas as outlined in Chapter 8 (Biodiversity) of this EIAR requires the implementation of noise-related restrictions and mitigation measures, including seasonal restrictions around the timing of certain construction activities to protect breeding and wintering birds.

20.4.5.5 Landscape and Visual

The proposed development includes requirements for landscaping to ensure that habitat connectivity is not severed, and habitat loss is minimal as well as forming a visual screen at sensitive bird locations. Visual screening is also proposed along the Moyasta rail bridge to mitigate potential impacts to birds. The proposed landscaping and screening is presented in Chapter 8 of this EIAR and considered in the assessment of landscape and visual impacts in Chapter 15 of this EIAR. The proposed development has adopted a suitable and sensitive, native planting mix and density for screening purposes, along with the retention of existing vegetation along boundaries, where feasible. The variety of planting and habitat proposed as part of this plan have a beneficial effect on landscape and visual receptors. This will have a permanent positive impact.

20.4.6 Land and Soils

Land and Soils will interact and / or interrelate with the following environmental topics:

- Human Health
- Biodiversity
- Hydrology
- Hydrogeology
- Air Quality
- Landscape and Visual Amenity
- Cultural Heritage
- Material Assets and Land (Agriculture)

20.4.6.1 Human Health

Worker interaction with potentially contaminated material during construction works could have health impacts on construction workers, however these impacts will be effectively mitigated with appropriate precautions as detailed in EIAR Chapter 7 Human Health and Chapter 9 Land and Soils.

There are no significant interactions anticipated between Land and Soils and Human Health during operation phase.

20.4.6.2 Biodiversity

Land clearing and soil excavation during construction will result in the permanent removal of some habitat. The greenway has been designed to minimise excavation and vegetation loss through retain existing hedgerow and boundary vegetation and utilising the former railway corridor where possible. An assessment of the potential impacts of the proposed development on the Biodiversity of the site, with emphasis on habitats, flora and fauna which may be impacted a result of the limited excavation and importation of construction materials to the site, is included in Chapter 8 of this EIAR.

20.4.6.3 Hydrology

Excavation and stockpiling of excavated material during the construction phase may impact water quality due to sediment run-off at exposed areas, causing sediment build-up in watercourses. This is a particular risk for activities adjacent to water courses, including bridge construction works. Mitigation measures are included in Chapter 10 Hydrology to mitigate such impacts including stockpile management and use of silt fences, as well as mitigation incorporated in the design including the use of clear span bridge construction methodologies for construction of river crossings.

No potential significant changes to hydrology are predicted during operation of the proposed development as the drainage design ensures no net increase in runoff rates, utilising the existing drainage network where feasible and the implementation of permeable pavement and bio-retention swales within the carparks at the proposed trailheads.

20.4.6.4 Hydrogeology

Excavations for proposed greenway cuttings, the box culvert underpass, various culverts and bridge foundations will have localised influence on groundwater flow in areas permeable soils.

20.4.6.5 Air Quality

Earthworks and the temporary stockpiling of material for reuse has the potential to result in localised dust impacts at nearby sensitive receivers resulting in slight, negative and temporary impacts on air quality during construction. Mitigation measures as outlined in Chapter 12 of this EIAR will be implemented to manage impacts.

20.4.6.6 Landscape and Visual Amenity

Earthworks will have temporary negative visual impacts during construction due to land clearing, vegetation loss, and temporary stockpiles for storing excavated material for reuse. During operation, the proposed development will alter the landscape in areas of new greenway construction which deviates from the original railway line. These alterations will be minor, resulting in slight, negative, long-term impacts upon Landscape and Visual Amenity.

20.4.6.7 Cultural Heritage

Earthworks will result in slight, positive, long-term impacts upon the preservation of features of the old railway through the creation of embankments and landscaped areas. During the construction phase and as soil is disturbed, there is also the potential to discover previously un-recorded archaeological and cultural heritage artefacts. Mitigation measures are included in the EIAR Chapter 16 Cultural Heritage, including testing prior to construction in some areas as well as having a qualified archaeologist presented during construction works.

20.4.6.8 Material Assets and Land (Agriculture)

During the construction phase, disturbance of soils and reinstatement of areas of temporary land take may result in impacts to land and soil quality on adjacent agricultural lands. These alterations may result in slight, negative, short-term impacts.

20.4.7 Hydrology

Hydrology will interact and / or interrelate with the following environmental topics:

- Human Health
- Biodiversity
- Land and Soils
- Hydrogeology
- Material Assets and Land (Agriculture)
- Material Assets and Land (Non - Agriculture)

20.4.7.1 Human Health

Construction activities have the potential for runoff of sediment to nearby watercourses if not manage appropriately which could impact the quality of nearby drinking water sources or bathing sites which in turn could impact human health. In addition, the proposed development will increase hardstand areas and impacts to the local drainage network creating a flood risk if not appropriately managed, which has the potential to adversely impact upon Human Health. The likelihood of this occurring is low, given the implementation of best practices, design mitigations and further mitigations to reduce flood risk as outlined in Chapter 10 Hydrology in

Volume 2 of this EIAR. During operation this includes over the edge drainage to be implemented along the greenway and permeable paving with bio-retention swales at trailhead carparks to ensure that water is efficiently collected, conveyed, suitably treated and discharged from the surface and surrounding areas. Hydrology is likely to have an insignificant impact upon Human Health.

20.4.7.2 Biodiversity

During the construction phase, there is a risk of pollution to the watercourses crossed by the proposed development and to waterbodies downstream of the proposed development including two Termon East_010 River Waterbody channels, The Lower River Shannon SAC, and the The River Shannon and River Fergus Estuaries SPA. Habitat degradation due to pollution may present long-term impacts on the aquatic habitats and sensitive species in the surrounding environment. Impacts to water quality as a result of the construction of the proposed development have been assessed in Chapter 10 Hydrology and cross-referenced in Chapter 8 Biodiversity of this EIAR. With the implementation of the mitigation measures outlined, interactions will be *slight, negative and temporary*.

For the operational phase, as outlined in Chapter 4 of this EIAR, over the edge drainage will be implemented along the greenway and permeable paving and bio-retention swales within the carparks at the tailhead locations to ensure that water is efficiently collected, conveyed, suitably treated and discharged from the surface and surrounding areas. Given these proposed measures, there are no negative water quality impacts associated with the operational phase of the proposed development. These effects are expected to be *imperceptible and negative* impacts.

20.4.7.3 Land and Soils

Construction site activities such as minor earthworks, site preparation, stockpiling of spoil, levelling and grading disturb and expose soils, leaving them more vulnerable to erosion during rainfall events. In places, these activities can also leave the ground more compacted, reducing infiltration to groundwater and increasing runoff to nearby watercourses and to any connected surface water dependent habitats. Excavated areas and earthworks are vulnerable to erosion. Excavations and the movement of construction traffic leave soils more vulnerable to erosion and alter the structure of land cover. Alteration to land cover within riparian corridors directly impacts water quality within a receiving waterbody. Chapter 9 outlines the mitigation measures pertaining to Land and Soils in Volume 2 of this EIAR. The anticipated impact upon Land and Soils is slight, negative and long-term.

20.4.7.4 Hydrogeology

Earthworks and dewatering pose a potential risk to receiving waterbodies, including the potential to mobilise contaminated materials associated with the former railway. These pollutants can leech into groundwater and cause long-term effects. Appropriate mitigation measures to avoid this impact are outlined in Chapter 11 Hydrogeology, in Volume 2 of this EIAR. The anticipated impact upon hydrogeology is insignificant with these mitigation measures in place.

20.4.7.5 Material Assets and Land (Agriculture)

Field drainage systems on agricultural lands will be interrupted by the construction works. These systems will be restored as part of the completed proposed project works. However, there may be temporary impaired drainage in the period of time between initial disturbance and final reinstatement of such drainage works.

20.4.7.6 Material Assets and Land (Non-agriculture)

Existing drainage systems may be disturbed and in places removed by the construction of the proposed project. These systems will be restored as part of the completed works. However, there may be temporary impaired drainage in the interim period between initial entry and final

reinstatement of such drainage works. The expected likely impact is direct, temporary and slightly negative. There are no anticipated interactions during the operational phase between these two environmental factors.

20.4.8 Hydrogeology

Hydrogeology will interact and / or interrelate with the following environmental topics:

- Human Health
- Land and Soils
- Hydrology
- Material Assets and Lands (Agriculture)
- Material Assets and Lands (Non-agriculture)

20.4.8.1 Human Health

Pollution events can impact the water quality and thus impact the human health of the surrounding population. Accidental run-off or spillage has the potential to impact groundwater and aquifer supplies and have a negative impact on human health of the local population. Best practice construction guidelines will be followed to avoid any spillage, and to mitigate the impacts if an event does occur. There are no significant interactions anticipated between Hydrogeology and Human Health during operation phase.

20.4.8.2 Land and Soils and Hydrology

The proposed development and its elements including the permanent piles, hardstanding areas and its drainage system, both during construction and operation interact with soils, geology, surface water and groundwater therefore there is an interrelationship.

20.4.9 Air Quality

Air Quality will interact and / or interrelate with the following environmental topics:

- Population and Human Health
- Biodiversity
- Landscape and Visual Amenity
- Material Assets and Land (Agriculture)
- Material Assets and Land (Non-agriculture)

20.4.9.1 Population and Human Health

Adverse air quality impacts are likely during the construction phase due to increased dust generation. There is a low risk of dust-related impact to Human Health during the construction phase. Best practice mitigation measures will be implemented during the construction phase to ensure air quality impacts are minimised and the proposed development complies with all air quality legislative limits. Therefore, the predicted impact is direct, short-term, negative, localised and not significant with respect to Population and Human Health during the construction phase. During the operational phase, an increase in vehicle numbers in the locality as a direct result of the greenway may be experienced. This has been considered in the Air Quality assessment and it has been determined that the proposed development will not cause significant impacts to air quality in the locality. It has been assessed that emissions will comply with the ambient air quality standards which are set for the protection of human health. The likely effect will be long-term, direct, negative and not significant.

20.4.9.2 Biodiversity

Dust generation as a result of construction traffic may impact upon flora by coating vegetation in a layer of dust and reducing the plant's ability to photosynthesise. There are EU-designated

sites within 50m of the proposed development which are ecologically significant. Dust mitigation measures to minimise this impact upon flora are detailed in Chapter 12 of this EIAR. With the implementation of these mitigation measures dust emissions will be minimised and impacts will be direct, short-term, negative, localised and not significant with respect to biodiversity. The operational phase will not result in any interactions between Air Quality and Biodiversity.

20.4.9.3 Landscape and Visual Amenity

Temporary dust during construction may influence visual amenity. The anticipated impact is direct, short-term, negative, localised and not significant in terms of Landscape and Visual Amenity.

20.4.9.4 Material Assets and Land (Agriculture)

Dust generated from the exposure of soil to the atmosphere during construction may cause annoyance to farm animals or workers. This stress may reduce productivity and increase management difficulties. The anticipated likely impact of Air Quality during the construction phase upon Material Assets and Land (Agriculture) is indirect, momentary and slightly negative. No interaction is expected between these factors at the operational phase.

20.4.9.5 Material Assets and Land (Non-agriculture)

Dust generated during the construction phase may have a nuisance effect on nearby properties especially during dry weather. The impact upon non-agricultural properties is considered indirect, momentary and imperceptible. No interaction is expected between these factors at the operational phase.

20.4.10 Climate

Climate will interact and / or interrelate with the following environmental topics:

- Human Health
- Biodiversity
- Hydrology
- Landscape and Visual Amenity

20.4.10.1 Human Health

The potential for flood events along the proposed greenway has been assessed in the climate chapter for both the construction phase and during operation factoring in future climate scenarios. Flood events have the potential to impact nearby property and reduce the operational capacity of the greenway, which can have associated risks to human health as assessed in Chapter 7 Human Health. Mitigation measures have been incorporated into the design of the greenway, as well as mitigation measures to be implemented during management and maintenance of the greenway. Refer to the Maintenance and Management Plan included in the appendices in Volume 4 of this EIAR.

20.4.10.2 Biodiversity

New landscape planting is proposed along the length of the proposed development which has been designed to take account of the local climate and potential impacts of climate change, with suitable and climate resilient species selected for the area. Refer to the landscape strategy in Chapter 8 Biodiversity and Chapter 15 Landscape and Visual.

20.4.10.3 Hydrology

The impact of flood risk has been assessed, and the surface water drainage network will be designed to cater for increased rainfall in future years as a result of climate change. The effect of the interactions between Climate and Hydrology are direct, short-term, negative and

imperceptible during the construction phase and direct, long-term, negative and imperceptible during the operational phase.

20.4.10.4 Landscape and Visual Amenity

The effects of climate relevant to landscape and visual matters during the construction and operational phases relate to a likelihood of drier and warmer summers, periods of draught, and more frequent storms and wet winters, which may affect the establishment and maturing of the proposed screen planting. Updated landscape management/ maintenance procedures, regular replanting of failed plants, can address these threads and ensure the successful establishment and maintenance of the proposed planting proposals to achieve the desired screening effects. The overall anticipated impact of Climate upon Landscape and Visual Amenity is direct, long-term, slight and negative.

20.4.11 Noise and Vibration

Noise and Vibration will interact and / or interrelate with the following environmental topics:

- Population
- Human Health
- Biodiversity
- Material Assets and Land (Agriculture)
- Material Assets and Land (Non-agriculture)

20.4.11.1 Population and Human Health

The construction phase will likely result in increased noise and vibration levels, depending on the stage of works. This may impact human health, residential amenity and recreation amenity. Noise impacts are expected to be non-significant, negative, short-term impacts. Noise and vibration mitigation measures outlined in Chapter 14 of this EIAR minimise adverse impacts. The operational phase will not result in the generation of excess noise or vibrations.

20.4.11.2 Biodiversity

Increased noise and vibration levels at the construction stage may adversely impact upon biodiversity by causing disturbance to environmentally sensitive locations. There are European designated sites in the surrounds of the proposed development containing species of ecological importance. Noise and vibrational disturbances may result in lowered numbers of breeding fauna in the area. Areas along Poulnasherry Bay have been identified as bird sensitive areas which are also sensitive to noise impacts. Chapter 8 of this EIAR and the CEMP outlines the mitigation measures taken to reduce impacts upon Biodiversity by Noise and Vibration to short-term imperceptible negative impacts.

20.4.11.3 Material Assets and Land (Agriculture)

The activity of earth moving machinery, transport HGVs and other ancillary vehicles will generate additional noise emissions in the immediate vicinity of the construction area during the construction phase. Excessive noise can be of significance for farm animals. In general, animals become accustomed to regular noises and unexpected noises can cause fright and distress. Intermittent noises close to farm buildings can distress livestock. The impact of Noise and Vibration upon Material Assets and Land (Agriculture) is anticipated to be direct, short-term and slightly negative during the construction phase. No tangible interaction is expected to arise during the operational phase.

20.4.11.4 Material Assets and Land (Non-agriculture)

The activity of construction vehicles will generate additional noise emissions in the immediate vicinity of construction. Noise and vibration may be a cause of disturbance to those residing

in dwelling houses located in close proximity to the construction of the proposed development. The anticipated impact is direct, short-term and slightly negative.

20.4.12 Landscape and Visual Amenity

Landscape and Visual Amenity will interact and / or interrelate with the following environmental topics:

- Population
- Human Health
- Biodiversity

20.4.12.1 Population and Human Health

Construction sites and compounds required for the construction phase will temporarily alter the landscape for the local population. This will temporarily disrupt views. There are slight, short-term negative impacts expected from this interaction during the construction phase.

Visual amenity will have a moderate, positive, long term impact on population and human health during the operational phase from the provision of additional scenic views from previously inaccessible areas and general improvements to the public realm.

20.4.12.2 Biodiversity

The proposed development will include the addition of landscape planting to screen potential negative impacts and mitigate the introduction of hard landscaping across the proposed development. This will result in positive impact to biodiversity through maintaining and supplementing existing hedgerows where possible, as well the introduction of additional landscape planting and associated habitat creation along the route.

20.4.13 Cultural Heritage

Cultural Heritage will interact and / or interrelate with the following environmental topics:

- Population
- Human Health
- Landscape and Visual

20.4.13.1 Population and Human Health

Construction may involve works in the vicinity of sites of archaeological and cultural value and interest to the local community. As such, indirect, slight, short-term and negative impacts are predicted during the construction phase. The greenway will incorporate elements of the former railway providing information for users on the cultural and built heritage of the region along the way, which will have positive long-terms impacts on the local population and associated health.

20.4.13.2 Landscape and Visual Amenity

The restoration of structures originally comprising part of the historic rail line will bring about moderate, positive, long-term impacts upon Landscape and Visual Amenity. The development will also have a moderate, positive, long-term impact upon the abandoned rail line itself by removing vegetation and recognising it as a cultural landmark in the region.

20.4.14 Material Assets and Land (Agriculture)

Material Assets and Land (Agriculture) will interact and / or interrelate with the following environmental topics:

- Human Health

20.4.14.1 Population and Human Health

The proposed development will result in permanent land take which may have a negative impact on human health if unmitigated Permanent land-take on agricultural properties is assessed in Chapter 17 Material Assets and Land (Agriculture), with associated health impacts assessed in Chapter 8 Human Health.

20.4.15 Material Assets and Land (Non-Agriculture)

Material Assets and Land (Non-Agriculture) will interact and / or interrelate with the following environmental topics:

- Population
- Human Health
- Material Assets and Land (Agriculture)

20.4.15.1 Population and Human Health

During construction phase, power outages may occur in an event of damage to utilities, or during rerouting works. Similarly, damage to utilities may impact on water supply infrastructure during the construction phase. There is potential for local communities and businesses to be temporarily affected by these power outages. As these are essential services that support healthy lives and maintain business operations, there is potential for population and human health to be temporarily affected by these outages. If works on utilities are to take place, all affected communities will be notified prior to the works commencing. Chapter 18 Material Assets and Land (non-Agriculture) and Chapter 6 Population and Chapter 7 Human Health in Volume 2 of this EIAR provide mitigation measures to minimise impacts on the population and human health as a result of utility diversions.

The proposed development will result in permanent land take which may have a negative impact on human health if unmitigated (refer to Chapter 7 Human Health).

20.4.16 Mitigation

As described in the previous sections, interactions occur between many of the environmental factors. The assessments for each of these environmental factors undertaken in this EIAR have considered, and taken cognisance of these direct, indirect, cumulative and synergistic interactions during both the construction and operation phase of the project. The individual environmental assessments have identified appropriate mitigation measures to address these interactions to avoid, reduce or mitigate likely significant environmental effects which are described and residual effects identified in the respective specialist chapters of this EIAR. Therefore, no further mitigation is proposed.

20.5 Cumulative Effects Assessment

20.5.1 Tier 1 Cumulative Assessment

West Clare Railway Greenway Section 1 is not considered to be functionally or legally interdependent upon any further development. It is noted that other sections of the greenway along the former West Clare Railway may be developed in future subject to the relevant planning assessment and approval, however the proposed development is not considered to be functionally or legally interdependent on the development of other potential sections of the greenway along the former railway line. The other sections of the greenway are considered in the Tier 3 cumulative assessment in Section 20.5.3 of this chapter.

20.5.2 Tier 2 Cumulative Assessment

20.5.2.1 Plans and Programmes

A range of policy documents that may have a cumulative effect with the proposed development have been reviewed and are shown in Table 20-3**Table 20-3 Plans and programme considered for the cumulative assessment** below.

Table 20-3 Plans and programme considered for the cumulative assessment

National Level
National Planning Framework (NPF) First Revision
National Development Plan 2021-2030
National Sustainable Mobility Policy
Strategy for the Future Development of National and Regional Greenways 2018
Tourism Policy Framework 2025-2030
National Investment Framework for Transport in Ireland
Climate Action Plan 2025
National Cycle Network Plan 2023
Our Rural Future: Rural Development Policy 2021-2025
National Physical Activity Framework 2024-2040 and the National Physical Activity Action Plan 2024-2029
CycleConnects: Ireland's Cycle Network (Draft Version)
Regional Level
Regional Spatial & Economic Strategy for the Southern Region 2020-2032
Local Level
Clare County Development Plan (2023-2029)
Clare County Development Plan (2023-2029)
Clare Climate Action Plan 2024-2029

The cumulative assessment of the plans and programmes with the proposed development is presented in Table 20-4 below.

Table 20-4 Tier 2 Cumulative Assessment of Plans and Programmes

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
'Project Ireland 2040'– National Planning Framework (NPF) and National Development Plan (NDP) 2021 – 2030	The National Planning Framework (NPF) First Revision is the Government's high-level strategic plan for shaping the future growth and development of the country out to the year 2040. The NPF with the National Development Plan (NDP) also set the context for each of Ireland's three regional assemblies to develop their Regional Spatial and Economic Strategies taking account of and co-ordinating local authority County and City Development Plans in a manner that will ensure national, regional and local plans align. An SEA and AA have been completed to support the plan. Planning for and delivering sustainable mobility projects is a key objective of the NPF and will help create a more integrated public transport system, enhance competitiveness, sustain economic progress and enable sustainable mobility choices for citizens. The proposed development will support the implementation of several National Strategic Outcomes (NSOs) and National Policy Objectives (NPOs) identified in the NPF and NDP respectively. The proposed development closely aligns with several of the NSOs: • NSO 1 Compact Growth • NSO 3 Strengthened Rural Economies and Communities • NSO 4 Sustainable Mobility • NSO 7 Enhanced Amenity and Heritage • NSO 10 Access to Quality Childcare, Education, and Health Services The proposed development closely aligns with several of the NPOs: • NPO 22 "Facilitate tourism development and in particular a National Greenways, Blueways and Peatways Strategy, which prioritises projects on the basis of achieving maximum impact and connectivity at national and regional level" • NPO 34 "*Continue to facilitate tourism development and in particular the Strategy for the Future Development of National and Regional Greenways, and a Blueways and Peatways Strategy…"* • NPO 36 "*Support the objectives of public health policy including Healthy Ireland Framework and the National Physical Activity Plan, through integrating such policies, where appropriate and at the applicable scale, with planning policy"* • NPO 37*"Ensure the integration of safe and convenient alternatives to the car into the design of our communities, by prioritising walking and cycling accessibility to both existing and proposed developments and integrating physical activity facilities for all ages".* • NPO 69*"Reduce our carbon footprint by integrating climate action into the planning system in support of national targets for climate policy mitigation and adaptation objectives, as well as targets for greenhouse gas emissions reductions as expressed in the most recently adopted carbon budgets"*. • NPO93*"Improve air quality and help prevent people being exposed to unacceptable levels of pollution in our urban and rural areas through integrated land use and spatial planning that supports public transport walking and cycling as more favourable modes of transport to the private car, the promotion of energy efficient buildings*	The West Clare railway Greenway Section 1 is aligned with both the NPF and NDP. The proposed development refers specifically to National Strategic Outcomes and National Policy Objectives outlined in the NPF and NDP. The development is consistent with the aims of NSOs 1,3,4,7 and 10, and NPOs 22, 34, 36, 37, 69 and 93. The proposed development will provide a high-quality walking and cycling corridor, reducing car dependency and thus reducing transport emissions and encouraging sustainable modes of travel. Both the proposed development and Project Ireland 2040 seek to deliver sustainable transport facilities, strengthened rural economies and communities and enhance heritage. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
	and homes, heating systems with zero local emissions, green infrastructure planning and innovative design solutions". Through the identification of more sustainable modes of travel, the proposed development is fully aligned with the National Planning Framework, with specific reference to the National Strategic Outcomes and National Policy Objectives outlined above.	
National Sustainable Mobility Policy (NSMP) 2022	The Department of Transport's National Sustainable Mobility Policy (NSMP) sets out strategic framework to 2030 for active travel and public transport to support Irelands overall requirement to achieve a 51% reduction in carbon emissions by the end of this decade, targeting at least 500,000 additional daily active travel and public transport journeys by 2030. along with a 10% reduction in the kilometres driven by fossil fuelled cars, by 2030. The proposed development has the potential to make travel for vulnerable road users within the study area safer and more attractive, which will encourage increased levels of active travel modes, therefore supporting the goals of the National Sustainable Mobility Policy. The NSMP has been developed to align with and complement other international, European and national policies and frameworks, such as the UN Sustainable Development Goals, Paris Agreement, European Green Deal, EU Sustainable and Smart Mobility Strategy and National Planning Framework. The policy is guided by three key principles, Safe and Green Mobility, People Focused Mobility and Better Integrated Mobility.	The proposed development will provide new walking and cycling infrastructure in West Clare, connecting Kilrush and Kilkee. It will provide a safe and scenic travel option for non-vehicular travel and will be particularly well-suited to users who may have additional needs such as parents with young children or people with impaired mobility and encourage sustainable mobility over the private vehicle use. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.
Strategy for the Future Development of National and Regional Greenways 2018	In 2018, the Department of Transport, Tourism and Sport published the Strategy for the Future Development of National and Regional Greenways to support the development of Greenways in Ireland. There are five key objectives outlined by the strategy for the delivery of Greenways by Local Authorities and other stakeholders: • *A Strategic Greenway network of national and regional routes, with a number of high-capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure;* • *Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity;* • *Greenways that provide a substantially segregated off-road experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do;* • *Greenways that provide opportunities for the development of local businesses and economies; and* • *Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.*	The proposed development will have the potential to facilitate the development of a national and regional network of Greenways and facilitate future spurs and connections across the region and potentially into surrounding counties. The intervention also has the potential to be an attraction in its own right, allowing visitors direct access to the main sights and scenic landscapes of West Clare, while also providing economic opportunities for the towns and villages in proximity. Positive, direct and indirect, significant and long-term cumulative effects are predicted to arise from the combination of this plan and the proposed development.

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
Tourism Policy Framework 2025-2030	The *Tourism Policy Framework 2025-2030* is a continuation of the first national tourism policy, *People, Place and Policy: Growing Tourism to 2025.* The framework focuses upon maximising the economic contribution of tourism while promoting sustainable tourism through investment. The framework outlines the value of active travel facilities in bolstering Ireland's reputation as a tourism destination, particularly through the provision of greenways and cycleways. The aim of this framework is to align the Irish tourism sector with the UN Sustainable Development Goals (SDGs) through environmental, economic and social responsibility. The SDGs outline the promotion of "sustainable tourism that creates jobs which promote local culture and products" is to be achieved by 2030, while another defined target is "to develop and implement tools to monitor sustainable development impacts for sustainable tourism which creates jobs, promotes local culture and products". The leverage effect of transport availability upon the rate of tourism is recognised in this framework, in particular in relation to rural areas which are highlighted in the framework as of high tourism potential. Ireland has an international reputation as a country with an unspoiled environment and the framework identifies regenerative and ecotourism as a significant 'potential growth area' for Ireland's future as a tourism destination.	The proposed development has the potential to provide a new key tourist attraction for the region, encouraging increased visitor spend and overnight stays. It will also help to facilitate further tourism growth in the region by providing a way for tourists to explore the region by 'slow travel' and to engage with the outdoors and outdoor activities. It will help to distribute tourist activity more evenly throughout the region, benefiting the towns and villages within the vicinity (for example Kilkee and Kilrush), and encouraging the emergence of new business clusters offering complementary services and activities along and adjacent to the route. These outcomes align closely with the Tourism Policy Framework 2025-2030 by increasing tourist spending, improving leisure facilities and creating employment. **Positive, direct and indirect, significant and long-term** *cumulative effects* are predicted to arise from the combination of this plan and the proposed development.
National Investment Framework for Transport in Ireland (NIFTI)	The National Investment Framework for Transport in Ireland (NIFTI) provides a framework to guide transport investment and deliver the infrastructure and services, aligning with the NPF and its National Strategic Outcomes (NSOs) to provide a consistent approach to investment across Government. Through the transport investment priorities identified it will contribute to Ireland's decarbonisation efforts, support vibrant and successful communities, deliver high performing transport systems, and promote a strong and balanced economy. The NIFTI supports the delivery of clean, low-carbon and environmentally sustainable mobility. It has identified the development of greenways as a way of contributing to reducing private car use in rural areas by providing an alternative means of accessing larger settlements. Section 1 of the West Clare Railway Greenway supports and aligns with the following investment priorities: • Enhanced regional and rural connectivity; and • Decarbonisation.	The proposed development is aligned with these priorities and is supported by NIFTI. The Greenway will assist regional and rural connectivity through improved active travel connectivity, and support decarbonization and a low carbon future through the provision of safe cycling facilities, providing potential for a modal shift from private transport. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
Climate Action Plan 2025 (CAP25)	The Climate Action Plan 2025 (CAP25) provides a detailed framework for reducing Ireland greenhouse gas emissions to net-zero by 2050, and a 51% reduction by 2030. This reduction plan is legally binding under the Climate Action and Low Carbon Development (Amendment) Act 2021. The Plan lists actions needed to deliver these climate targets and sets indicative ranges of emissions reductions for each sector of the economy. One of the key performance indicators identified in CAP 25 is a 50% increase in daily active travel journeys by 2030. CAP25 outlines an 'Avoid-Shift-Improve' approach to cut transport emissions and places emphasis on improvements to active travel infrastructure as an important aspect of this plan. Budget 2025 allocated €951 million in carbon tax revenues to support Ireland's low-carbon transition through socially progressive programmes, representing a €163 million increase on the 2024 allocation. CAP25 also recognises *"Reduction in Total Vehicle Kilometres and Fuel Usage, and Increase in Sustainable Transport Trips"* as a key performance indicator.	The proposed development supports the Climate Action Plan 2025 targets by creating facilities for active travel and tourism in the form of pedestrian and cycling facilities, thereby encouraging a modal shift towards sustainable active travel modes. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.
National Cycle Network Plan 2023	Cycle Connects is intended to form a comprehensive cycle network for all cycle user types across each county in Ireland. The proposal contains county cycle networks and urban cycle networks which have been developed for all towns with a population of 5,000 or more.	The proposed development will have the potential to serve as a link between current and future cycle networks nationwide and will connect Kilkee and Kilrush via Moyasta. The proposed development will align with the objectives of Cycle Connects to enhance connectivity across Ireland. Positive, direct and indirect, significant and long-term cumulative effects are predicted to arise from the combination of this plan and the proposed development.
Our Rural Future: Rural Development Policy 2021-2025	Our Rural Future provides a framework for the post-COVID-19 recovery and development of rural Ireland up to 2025. The policy addresses challenges such as investment, job creation, sustainable population growth, balanced regional development and adaption to climate change. To help encourage this urban to rural transformation and build resilient and sustainable rural communities, access to comprehensive and reliable transport infrastructure is vital. Public consultations which helped inform Our Rural Future highlighted 'Travel and Infrastructure' as one of the top challenges facing rural Ireland, particularly for young people whose independence is restricted if they must rely on family or friends for transport. To enhance rural connectivity, the Policy prioritises the provision of walking and cycling infrastructure, including Greenways, acknowledging the "huge potential for cycling within and between rural towns and villages, and particularly in the hinterland of rural towns". Investment in rural walking and cycling infrastructure is prioritised in Policy Measure 102 of Our Rural Future: "Invest in high-quality walking and cycling infrastructure specifically targeted at towns and villages across the country."	The proposed development will help retain and attract people to live and work within the study area by providing a high-quality facility for commuting and leisure. It will also help stimulate growth in outdoor activity tourism, encouraging the emergence of new business clusters offering complementary services and activities along the route. Positive, direct and indirect, significant and long-term cumulative effects are predicted to arise from the combination of this plan and the proposed development.
National Physical Activity	The National Physical Activity Action Plan was created by the Department of Health to increase physical activity levels across the entire population, setting separate targets based upon age categories. The National Physical	The proposed development will contribute to the goals of the National Physical Activity Plan through the provision of an active

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
Framework 2024-2040 and the National Physical Activity Action Plan 2024-2029	Activity Framework, (from which the National Physical Activity Plan is derived) aims to make Ireland the most physically active population across Europe by 2040. The 2024-2029 Plan aims to foster "significant statistical improvements" in the numbers of people meeting the recommended levels of physical activity, bring about transformational change by developing the appropriate guidance and scrutinise the efficacy of the policies and programmes currently in place to achieve the vision of this plan and greater framework. Recognising that there are many reasons that people are unable to meet the recommended levels of physical activity, the Plan contains some guiding principles to promote increased levels of physical activity, including by 'inviting Sports Inclusion Disability Officers, Active Disability Ireland and disability-focused NGBs to explore avenues to further promote physical activity among people with disabilities'. The Plan highlights the benefits of incorporating active travel into commutes, from both a health and environmental perspective and the opportunity for reduced travel times. The Plan includes several actions aimed at promoting active travel and recreation, including: • 'Building on the Climate Action Plan target of 1,000km of active travel infrastructure which will be rolled out by 2025, over the period to 2029.' • 'Continued implementation of the GDA Cycle Network Plan, Cycle Connects and National Cycle Network plans.' • 'Explore avenues to make cycling as a form of transport or exercise more financially accessible to those who cannot avail of current incentives.' • 'Supporting a variety of infrastructures to support safe walking and/or cycling and/or wheeling, including measures to calm speed, reduce vehicle traffic and enhance active mobility.' • 'Explore the development of initiatives to support a behavioural and modal shift towards active travel to increase the number of people choosing these modes as their primary travel mode.' • 'Work closely with Get Ireland Walking and Cycling Ireland to ensure their strategic aims reflect the roles of both forms of physical activity in the area of active travel.'	travel opportunity for commuters and leisure users. Objectives of the proposed development are to promote the general health and wellbeing of all end users by encouraging physical activity through the provision of convenient, accessible and inclusive infrastructure, increasing opportunities for daily exercise, thereby fully aligning with the National Physical Activity Plan 2024-2029. Positive, direct and indirect, significant and long-term cumulative effects are predicted to arise from the combination of this plan and the proposed development.
Regional Spatial & Economic Strategy for the Southern Region 2020-2032	The Southern Regional Assembly's Regional Spatial and Economic Strategy (RSES) provides regional specific policy objectives for the southern region of Ireland. The RSES's primary goal is to implement Project Ireland 2040 – the National Planning Framework – at a regional level, ensuring balanced and sustainable growth across the region. Under the Planning and Development Act 2000 (as amended), all City and County Development Plans and their variations must align with the RSES and relevant national policies. It is driven at the local level by elected members, local authorities, stakeholders, community groups and individual citizens who have shaped this shared strategy, and is informed by national, EU and international policies. The Southern Region's Strategy to build a strong, resilient, sustainable region. This will be achieved by a number of means; those which relate to the proposed development are: • No. 2: Enhancing regional accessibility through upgraded transport infrastructure and digital connectivity allied to transformed settlement hierarchy. • No. 4: Transforming our transport systems towards well-functioning, sustainable integrated public transport, walking and cycling and electric vehicles.	The proposed development is supported by the Regional Spatial & Economic Strategy for the Southern Region 2020-2032. The proposed development is supported by the overall strategy of the RSES, as well as a number of RPOs within the Southern Region RSES which promote the development of Greenways in the region. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
	• No. 8: Safeguarding and enhancing our environment through sustainable development, prioritising action on climate change across the region, driving the transition to a low carbon and climate resilient society. • No. 9: Providing infrastructure and services in a sustainable, planned and infrastructure-led manner to ensure the sustainable management of water waste and other environmental resources. A number of Regional Policy Objectives (RPOs) within the Southern Region RSES also promote the development of walking and cycling routes, as well as Blueways, Greenways and Peatways in the region.	
Clare County Development Plan (2023-2029)	Clare County Development Plan (CDP) 2023-2029 sets out an overall strategy for the proper planning and sustainable development of the functional area of Clare County Council over a 6 year period. The proposed development supports and complies with number of the objectives of the Clare CDP, including: • **CDP9.8** It is an objective of the Development Plan: *"d. To sustainably develop greenways, blueways and peatways and walking and cycling trails including the West Clare Railway Greenway to achieve greater accessibility to the countryside and the marine environment by sustainable modes and to achieve maximum benefit and connectivity at local, regional and national levels."* *"e. To promote activity tourism subject to appropriate site selection and environmental assessment processes; and"* *"f. To ensure the siting of Blue and Green Infrastructure is carefully considered in the context of climate change and resilience and flood protection."* • **CDP 9.26** It is an objective of Clare County Council: *"In addition to the development of its greenway potential to facilitate the reopening of appropriate sections of the West Clare Railway as an operational tourist attraction by permitting where appropriate new sections of railway to be built as alternatives to parts of the line which have been built on or are inaccessible since its closure."* • **CDP 10.11** It is an objective of Clare County Council: *"a) To support the maintenance of existing off-road walking and cycling trails and support investment in the sustainable development of walking and cycling facilities, greenway and blueway corridors within the County and region extending into and between our County's settlements;"* *b) To support and facilitate the development of the West Clare Railway Greenway and necessary supporting infrastructure".* • **CDP 11.5** It is an objective of Clare County Council: *"a) To require walkability and accessibility to be a central consideration in the planning and design of all new developments, transport infrastructure and public transport services;"* *"b) To facilitate and support the delivery of a safe, accessible and convenient cycle network and environment across the County and in the Limerick-Shannon Metropolitan Area as set out in the Cycle Network Plans;"* *"c) To support the development and enhancement of long-distance cycling routes in County Clare, in accordance with the Strategy for the Future Development of National and Regional Greenways;"*	The proposed development will support the development of walking and cycling facilities, greenway corridors within the County, and facilitate the reopening of the West Clare Railway as a tourist attraction. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.

Plan	Plan/Programme Description	Summary of Anticipated Cumulative Impacts
	"d) To safeguard, where feasible, the route of the old West Clare Railway which has not been affected by existing development and to encourage its use for recreational purposes and/or as part of a tourist attraction. Exceptions to this include short sections within the curtilage of residential or commercial property;" *"e) To support the development of cycle-lanes in urban areas linking residential areas to town centres, employment centres and school locations;"* *"f) To support the development of new accessible walking routes and trails throughout the County;"* **West Clare Municipal District Settlement Plans** The interim Clare County Development Plan 2023-2029 also provides settlement plans which outline land zoning details in addition to aims and objectives for all towns and villages in County Clare, excluding Shannon Town. Volume 3(d) of the draft Clare County Development Plan 2023-2029 contains the West Clare Municipal District Settlement Plans. Relevant objectives set out in the Kilkee, Kilrush (including Cappa Village and Pier) and Moyasta settlement plans support the West Clare Railway Greenway within and connecting the settlements.	
Clare Climate Action Plan 2024-2029	The Clare Climate Action Plan (CAP) 2024-2029 has been prepared by Clare County Council to act as a mechanism of implementing mitigation and adaptation actions across the administrative area of County Clare to *"drive positive climate action"*. The Plan acknowledges that the tourism sector is one of the key drivers of the local economy for County Clare which has diverse geographical landscapes. In 2018, approximately 769,000 tourists visited the county, generating approximately €244 million of revenue which supported 6,600 jobs. The Plan notes that services and infrastructure ill need to increase over time to meet the growing tourism demand and as such, *"it is imperative therefore that the Local Authority positions itself to lead on Climate Action and sustainable practices to ensure that the county has a resilient future"*. Kilkee and Loop Head Peninsula has been designated as a Decarbonisation Zone (DZ) for County Clare within which the proposed development is located. The total greenhouse gas (GHG) emissions within Kilkee/Loop Head Peninsula DZ were quantified in 2018 and equated to approximately 136,185 tCO_2e sources of which area *"agriculture (67%), land use (18%), buildings (residential, commercial, and public) (11%), and transport (4%)"*. Under sustainable transport, the *"development of greenway/cycle lanes in Loop Head Peninsula"* have been ranked as the highest priority under this topic. The Plan therefore aims to *"Advance the delivery of the West Clare Railway Greenway"*, as identified under Transport Action DZ-T1 and Objective T1.2.	The proposed development will construct a section of the West Clare Railway Greenway between Kilkee and Kilrush within the Kilkee and Loop Head Peninsula DZ boundary. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.
County Clare Tourism Strategy 2030	The County Clare Tourism Strategy 2030 establishes a 10-year vision for the development of tourism in County Clare. In 2018 the County Clare tourism industry has generated €244 million and created 6,600 jobs connected to tourism; due to the global pandemic these numbers have since decreased. The Clare County Strategy focuses on the recovery of the economic development brought on by tourism and on creating a path towards a new future in tourism. West Clare Rail Greenway has been identified within the Strategy as the *"top priority initiative"* for the county and to *"move forward with the initial Kilrush to Kilkee pilot project"*.	The proposed development will realise the Kilrush to Kilkee section of the West Clare Rail Greenway which is consistent with the strategic priorities of this Strategy. *Positive, direct and indirect, significant and long-term cumulative effects* are predicted to arise from the combination of this plan and the proposed development.

20.5.2.2 Projects

Existing or approved projects that may have a cumulative effect with the proposed development is presented in Table 20-5 within the 1km study area boundary.

Table 20-5 Tier 2 Projects within the 1km study area boundary with potential cumulative effects

Application Details	General Project Description	Cumulative Impacts Assessment
Project: Kilkee Flood Relief Scheme **Applicant:** Clare County Council **Local Authority**: Clare County Council **Case ref:** JA03.320967 **Location:** Kilkee, Co. Clare **Status:** Approved with conditions in August 2025. Detailed design and investigations commenced, construction not yet commenced.	The Kilkee Flood Relief Scheme includes a series of flood defences situated within the catchments of both the Victoria, Well & Atlantic Streams, the three sources of fluvial flooding in the town. An EIAR and NIS have been prepared for this development. This development overlaps with the proposed development boundary in Kilkee, south of the N67 where the proposed development crosses Atlantic Stream. Works proposed around Kilkee Bay Hotel adjacent to the northern boundary of the proposed development include: Construction of c. 200m long embankment c. 1.3-1.6m high. Diversion of c. 110m of open channel into centre of floodplain. Installation of new headwall and 600mm inlet culvert under embankment to link with existing culvert. Based on Newsletter No. 5 (May 2026) on the project website, the project is currently at detailed design stage with a number of preliminary investigations commenced and planned. Construction is estimated to commence in Q4 2027 and last for approx. 18 months.	Construction has not yet commenced on the Kilkee Flood Relief Scheme, and as such there is potential for overlap or interaction during the construction phase. Should the construction phase of these developments overlap, potential cumulative impacts with the proposed development are likely with regards to the following: • Population & Human Health • Biodiversity • Hydrology **Cumulative Effects on Population and Human Health** Residents located in the areas surrounding the Atlantic Stream works may be subject to cumulative amenity and health related impacts associated with the proposed development at Kilkee where the two schemes overlap. This may result in cumulative temporary dust, noise & vibration, and visual impacts if not appropriately mitigated, which may be a nuisance to the nearby population resulting in associated impacts to population and human health during construction. **Cumulative Effects on Biodiversity** Should the construction stages overlap, there is potential for increase in the magnitude of accidental pollution or displacement of local fauna which may impact local biodiversity. Mitigation and monitoring measures as described in the EIAR Biodiversity Chapter of the proposed development will be implemented to address all likely significant impacts. Based on the information available, no significant, negative cumulative effects are likely to impact Biodiversity during the construction phase. No significant negative cumulative effects on biodiversity are expected during the operational phase. **Cumulative Effects on Hydrology** Should the construction stages overlap, there is potential for increase in the magnitude of accidental pollution which may adversely affect surface waters. There are a number of surface watercourses in the vicinity of the projects. Mitigation measures proposed in the Biodiversity and Hydrology Chapters of the proposed development's EIAR will reduce the potential impacts to surface water quality. Based on the information available, no significant, negative cumulative effects are likely to impact Hydrology during the construction phase No significant negative cumulative effects on Hydrology are expected during the operational phase. Consultations conducted with the design consultants for the Flood relief Scheme have confirmed that the proposed greenway will not impact the design or operation of the scheme. The surfacing of the greenway will not significantly increase runoff rates in the area or impact existing flow paths.

Application Details	General Project Description	Cumulative Impacts Assessment
Project: Kilkee Foul Pumping Station and New Wastewater Treatment Plant **Applicant:** Uisce Éireann **Planning Authority**: An Coimisiún Pleanála **Case ref:** PL03.321258 **Location:** Sites in the townlands of Kilkee Lower and Foohagh, Kilkee, Co. Clare. **Status:** Granted with conditions in June 2025. At the time of writing, the construction for this development has not commenced.	This application is for 10 year permission for the construction of a new foul pumping station and a new wastewater treatment plant and all associated works. A Natura Impact Statement (NIS) and an Ecological Impact Assessment (EcIA) were included with the application. The application is located approximately 710m west of the proposed development at its western extent in Kilkee.	The construction phase has not yet commenced for this development, and therefore there is potential for the construction phase of these two projects to overlap. Should the construction phase of these developments overlap, potential cumulative impacts with the proposed development are likely with regards to the following: • Biodiversity • Hydrology **Cumulative effects on Biodiversity** In the event of accidental pollution during construction, there is potential for surface water quality impacts which could result in impacts to biodiversity. Mitigation measures proposed in the NIS and EcIA for the proposed development will reduce the potential impacts to biodiversity by reducing the likelihood of accidental pollution events occurring. This application will have a positive impact on the coastal aquatic environment, as it will provide treatment to water being discharged into Intrinsic Bay. No significant negative effects are anticipated during the construction or operation phase. **Cumulative effects on Hydrology** In the event of accidental pollution during construction there is potential for cumulative surface water quality impacts. Mitigation measures proposed in the NIS and EcIA for the proposed development's EIAR will reduce the potential impacts to surface water quality by reducing the likelihood of accidental pollution events occurring. This application will have a positive impact on the coastal aquatic environment, as it will provide treatment to water being discharged into Intrinsic Bay. No significant negative effects are anticipated during the construction or operation phase.
Project: Proposed Fáilte Ireland Platforms for Growth - shared community facilities, Kilkee **Applicant:** Clare County Council **Planning Authority**: An Coimisiún Pleanála **Case ref:** JP03.313154 **Location:** Proposed site at East End, Kilkee, Co. Clare **Status:** Approved with conditions in July 2023. At the time of writing, the construction for this development has not commenced.	The development will provide indoor and outdoor showers, serviced toilets, external and internal seating, communications workspace (to facilitate multi-media education/induction and learning area for the operators of, and visitors to, the facilities), lockers for secure storage, and washdown areas. The proposed changing/shower/toilet facility itself is a single storey contemporary design and has a wedged angular shape with various openings along the external panelled walls, leaving it open to public access, a sloped sedum clad roof with solar panels is also incorporated. The changing facility will also accommodate bench seating, lockers,	The construction phase has not yet commenced for this development, and therefore there is potential for the construction phase of these two projects to overlap. Should the construction phase of these developments overlap, or occur sequentially, potential cumulative impacts with the proposed development are likely with regards to the following: • Traffic • Population & Human Health • Biodiversity • Hydrology **Traffic** The works are located over 700m apart and given the linear nature of the proposed greenway development and the fact there is no compound site proposed in Kilkee, there is unlikely to be cumulative effects during construction in relation to traffic and access. If construction of the new ancillary facilities in Kilkee commences once the proposed greenway is already in

Application Details	General Project Description	Cumulative Impacts Assessment
	accessible toilet/shower facilities and an informal meeting/discussion area. A second smaller building (plant/condenser store) is also proposed, this is single storey, flat roofed with timber panelled external cladding and will not be open to access from the public. Other works include provision of accessible car parking spaces access footpaths and ramps, bike racks, relocation of existing memorial, landscaping, and all associated civils works. A Natura Impact Statement (NIS) and an Ecological Impact Assessment (EcIA) accompany this application. This application is located approximately 739m northwest of the proposed development, at its western extent in Kilkee.	operation, there is potential for cumulative effects in relation to parking as the works would be located in an area that has been assessed for use by greenway users as per the parking demand analysis carried out in Chapter 5 of this EIAR. Based on an assessment of the planning reports associated with the ancillary facilities in Kilkee, the development is not likely to result in significant effects in relation to traffic/access during construction, with the inspector's report specifically noting these impacts will be "temporary, contained to the site working areas, and deliveries will not impede traffic or pedestrian movements in the vicinity or wider area", therefore no negative cumulative effects to traffic are anticipated as a result of construction of the two schemes. It is noted a portion of the existing car park is to be improved through provision of two additional accessible spaces as well as the provision of a bike rack, the proposed development adjacent to the existing car park will also provide bike stands and an external bicycle repair station. This will result in positive and permanent cumulative effects during operation of the two schemes. **Cumulative effects on Population & Human Health** The works are located over 700m apart and given the linear nature of the proposed greenway development and the fact there is no compound site proposed in Kilkee, any potential nuisance associated with traffic and access, noise, dust etc. is unlikely to result in any significant cumulative effects during construction. During operation, the development will be located adjacent to one of the parking areas assessed in Kilkee for potential use by greenway users as assessed in the parking demand analysis (refer to EIAR Chapter 5). There is potential for positive effects to the population as there is no trailhead or ancillary facilities proposed in Kilkee, given the current availability of parking and facilities already available in the town. The addition of new ancillary facilities in Kilkee adjacent to one of the parking areas proposed for use during operation if the greenway will result in positive and permanent cumulative effects on population and human health. **Cumulative effects on Biodiversity** In the event of accidental pollution during the construction and operational phases, there is potential for surface water quality impacts which could result in impacts to biodiversity. Mitigation measures proposed in the NIS for the proposed development will reduce the potential impacts to biodiversity by reducing the likelihood of accidental pollution events occurring. Based on the information available, no significant, negative cumulative effects are likely to impact Biodiversity during the construction phase. No significant negative effects are anticipated during the construction or operation phase**.** **Cumulative effects on Hydrology** In the event of accidental pollution during the construction and operational phases of these developments, there is potential for cumulative surface water quality impacts. Mitigation measures proposed in the NIS for the proposed development will reduce the potential impacts to surface water quality by reducing the likelihood of accidental pollution events

Application Details	General Project Description	Cumulative Impacts Assessment
		occurring. Based on the information available, no significant, negative cumulative effects are likely to impact Hydrology during the construction phase. No significant negative cumulative effects on Hydrology are anticipated during the construction or operation phase.
Project: Residential development, Kilkee **Planning Authority:** Clare County Council **Case ref:** 25128 **Location:** Lisdeen, Kilkee, Co. Clare **Status:** Granted in November 2025.	Proposed works: (1) part demolish, renovate and extend existing dwelling house to include raised roof ridge height with first floor accommodation plus elevational changes, (2) upgrade and relocate foul sewer treatment system, (3) construct new vehicular entrance to former railway line level crossing gate, (4) part adjust existing ground levels plus all ancillary site works. Located along the route of the proposed development.	The construction phase has not yet commenced for this development, and therefore there is potential for the construction phase of these two projects to overlap. Should the construction phase of these developments overlap, or occur sequentially, potential cumulative impacts with the proposed development are likely with regards to the following: • Population & Human Health **Cumulative Effects on Population and Human Health** The proposed greenway has been designed to take account of the proposed works to this residence, with relocation of the greenway to minimise cumulative impacts.
Project: Commercial property Kilrush **Applicant:** Europiping Engineering **Planning Authority:** Clare County Council **Case ref:** 25172 **Location:** Merchants Quay, Leadmore West, Kilrush, Co. Clare V15 N126 **Status:** Granted with conditions in April 2026.	Proposed works: a) retention of the light engineering workshop in the old seaweed factory building. b) retention of the new side cladding and access doors to old sea-weed factory building. c) retention of the existing palisade fencing and entrance gates. d) retention of the existing storage area. e) retention of the existing carparking. These works will be carried out within the curtilage of an existing protected structure. Located along the route of the proposed development.	Potential cumulative impacts with the proposed development are likely with regards to the following: • Material Assets and Land (non-Agriculture) **Cumulative Effects on Material Assets and Land (non-Agriculture)** It is noted the grant of permission for the referenced project was conditional, with the retention of the existing boundary fence to the north refused, with the new boundary fence to be designed and relocated south of the greenway route as shown on the Development Plan. This work is likely to be completed before construction commences on the proposed greenway therefore no cumulative effects are likely.
Project: Residential development, Kilrush **Applicant:** P & J Neylon **Local Authority:** Clare County Council **Planning Applicant ref:** 2560545 **Location:** Kilrush House, Frances Street, Kilrush, Co. Clare. **Status:** Permission was granted in October 2025. At the time of writing,	To retain: (A) the construction of one dormer window in lieu of the 2 dormer windows granted under P20-63, (B) retaining the stone infill to the arch which was proposed to be opened under P20-63 and Planning Permission for (1) construction of an extension to the existing dwelling house, bin storage, storage sheds (2) minor alterations to part of the existing building to integrate the new extension (3) construction of 1 standalone storage shed, (4) construction of a	This application is approximately 125m east of the proposed development. At the time of writing, construction for this application had not yet commenced, and therefore there is potential for the construction phase of these two projects to overlap. Should the construction phase of these developments overlap, or occur sequentially, potential cumulative impacts with the proposed development are likely with regards to the following: • Air Quality • Noise & Vibration **Cumulative Effects on Air Quality** Due to the close proximity of both development sites, there is potential for cumulative air quality impacts from construction dust generated due to construction activities and movement

Application Details	General Project Description	Cumulative Impacts Assessment
the construction for this development has not commenced.	garden room (5) construction of a covered carport with solar panels and (6) all associated ancillary works. Kilrush House is a protected structure RPS No. 859. Located approximately 125m east of the proposed development.	of construction vehicles, such as HGVs. Dust mitigation and monitoring measures proposed in the EIAR Air Quality Chapter for the proposed development. Based on the information available, no significant, negative cumulative effects are likely to impact Air Quality during the construction phase. No significant negative cumulative effects on Air Quality are expected during the operational phases of the aforementioned developments. **Cumulative Effects on Noise & Vibration** Due to the close proximity of these developments, there is potential for cumulative noise effects from construction activities. Mitigation measures set out in the Noise and Vibration Chapter of the EIAR for the proposed development will be implemented to control noise and vibration effects. Based on the information available, no significant, negative cumulative effects are likely to impact Noise & Vibration during the construction phase. No significant negative cumulative effects are anticipated during the operation phase.
Project: Moanmore Lower Green Energy Limited Wind turbines, Kilrush **Applicant:** Moanmore Lower Green Energy Limited **Local Authority:** Clare County Council **Planning Applicant ref:** PL03.323152 **Location:** Moanmore Lower, Moanmore South, Tullabrack, Tullabrack East and Gower South, Kilrush, Co. Clare **Status:** This application was lodged in July of 2025 and is awaiting decision.	Construction of 3 wind turbines and all associated site works. This application is accompanied by an EIAR and an NIS. This application is approximately 1.2km east of the proposed development.	The potential cumulative impacts with the proposed development are likely with regards to the following: • Biodiversity • Hydrology • Air Quality **Cumulative Effects on Biodiversity** Should the construction stages overlap, there is potential for increase in the magnitude of accidental pollution or displacement of local fauna which may impact local biodiversity. Mitigation measures as described in the EIAR Biodiversity Chapter of the proposed development will be implemented to address all likely significant impacts. Based on the information available, no significant, negative cumulative effects are likely to impact Biodiversity during the construction phase. **No significant negative cumulative effects** on biodiversity are expected during the operational phase. **Cumulative Effects on Hydrology** Should the construction stages overlap, there is potential for increase in the magnitude of accidental pollution which may adversely affect surface waters. There are a number of surface watercourses in the vicinity of the projects. Mitigation measures proposed in the Biodiversity and Hydrology Chapters of the proposed development's EIAR will reduce the potential impacts to surface water quality. Based on the information available, no significant, negative cumulative effects are likely to impact Hydrology during the construction phase. **No significant negative cumulative effects** on Hydrology are expected during the operational phase.

Application Details	General Project Description	Cumulative Impacts Assessment
		Cumulative Effects on Air Quality Should the construction stages overlap and/ or develop concurrently, there is potential for construction dust generated due to construction activities and movement of construction vehicles, such as HGVs, to create cumulative impacts upon air quality. Increased vehicular emissions due to traffic diversions may also arise. Dust mitigation and monitoring measures proposed in the EIAR Air Quality & Climate Chapter for the proposed development will address any likely significant impacts. Should construction phases overlap and based on the information available, there is potential for negative, not-significant, short-term cumulative effects upon air quality and climate during the construction phase. **No significant negative cumulative effects** on Air Quality are expected during the operational phase.

20.5.3 Tier 3 Cumulative Assessment

Table 20-6 provides the cumulative assessment of the proposed development with 'other' identified projects that are within the planning system, or are in the public domain/at preliminary design.

Table 20-6 Tier 3 Cumulative Assessment of Projects

Application Details	General Project Description	Cumulative Impacts Assessment
Project: West Clare Railway Greenway Sections 2-4 **Applicant:** Clare County Council	The West Clare Railway Greenway project aims to provide a recreational greenway, following the route of the former West Clare Railway, where feasible. This recreational greenway has the potential to connect towns and villages along the route, including Ennis, Corofin, Ennistymon, Lahinch, Miltown Malbay, Quilty, Mullagh, Doonbeg, Kilkee, Moyasta, and Kilrush. The West Clare Railway Greenway project will mainly be used for recreational purposes by pedestrians, cyclists, and people with impaired mobility in order to facilitate healthy active travel routes to places of work, education, and leisure. Sections 2-4 of the West Clare Railway Greenway are still being developed. Section 4 of the West Clare Railway Greenway would tie into the proposed development at Moyasta.	Should the construction phase of the proposed development and another section of the West Clare Railway Greenway overlap, or occur sequentially, potential cumulative impacts with the proposed development are likely with regards to the following: • Air Quality • Biodiversity • Hydrology • Noise & Vibration • Soils & Geology • Traffic & Transportation • Landscape & Visual **Cumulative effects on Air Quality** Due to close proximity of both development sites, there is potential for cumulative air quality impacts from construction dust. The proposed development has been assessed as having a risk of dust soiling impacts during the construction phase. A number of mitigation measures have been proposed in the respective EIAR Air Quality Chapters for the proposed development in order to ensure significant dust impacts do not occur. Separate planning approval documents will be developed for Sections 2 and 3 & 4 of the West Clare Railway Greenway. Provided these measures are in place for the duration of the construction phase, significant cumulative construction dust impacts are not predicted. Based on the information available, no significant, negative cumulative effects are likely to Air Quality during the construction phase. No significant negative effects are anticipated during the operation phase. **Cumulative effects on Biodiversity** In the event of accidental pollution during the construction phase, there is potential for surface water quality impacts which could result in impacts to biodiversity. Mitigation measures proposed in the respective EIAR Biodiversity and Hydrology Chapters for the developments will reduce the potential impacts to biodiversity by reducing the likelihood of accidental pollution events occurring. Provided these measures are in place for the duration of the construction phase, significant cumulative construction-phase impacts to Biodiversity are not predicted. Based on the information available, no significant, negative cumulative effects are likely to Biodiversity during the construction phase. No significant negative cumulative effects are anticipated during the operation phase. **Cumulative effects on Hydrology** In the event of accidental pollution during the construction phase, there is potential for surface water quality impacts which could result in impacts to Hydrology. Mitigation measures proposed in the respective EIAR Biodiversity and Hydrology Chapters for the developments will reduce the potential impacts to biodiversity by reducing the likelihood of accidental pollution events occurring. Provided these measures are in place

Application Details	General Project Description	Cumulative Impacts Assessment
		for the duration of the construction phase, significant cumulative construction-phase impacts to Hydrology are not predicted. Based on the information available, no significant, negative cumulative effects are likely to Air Quality during the construction phase. No significant negative cumulative effects are anticipated during the operation phase. **Cumulative effects on Noise & Vibration** Due to the close proximity of these developments, there is some potential for cumulative noise effects from construction activities if the projects are to overlap. Based upon the information available, noise impacts can be anticipated to be at nuisance level, resulting from additional traffic movements and machinery use. Mitigation measures set out in the Noise and Vibration Chapter of the EIAR for the proposed development will be implemented to control noise and vibration effects. Based on the information available, no significant, negative cumulative effects are likely to Noise & Vibration during the construction phase. No significant negative cumulative effects on noise and vibration are expected during the operational phase. **Cumulative Effects on Traffic and Transportation** There is potential for cumulative negative effects on vehicular traffic if the construction works occur concurrently and/or sequentially. Partial road closures are likely to arise during both construction phases which may result in higher than typical traffic flows on adjacent roads and increases in HGV movements. A Construction Traffic Management Plans will be implemented as part of the West Clare Railway Greenway Projects to reduce likely significant impacts, including cumulative effects. predicted. Based on the information available, no significant, negative cumulative effects are likely to Traffic and Transportation during the construction phase. The West Clare Railway Greenway Projects will encourage the use of and increase the mode share of sustainable transport modes. Overall, the operational phase will likely result in **significant, positive, long-term cumulative impacts.** **Cumulative Effects on Lands and Soils** Should the construction phases overlap, there is potential for increased magnitude of waste generation and disturbance to soil. Mitigation measures set out in the Land and Soils Chapter of the EIAR for the proposed development will be implemented to control negative effects to Lands and Soils. Based upon current information, no significant, negative cumulative effects are likely to Lands and Soils during the construction phase. No significant, negative cumulative effects on Land and Soils are anticipated during the operation phase. **Cumulative effects on Landscape & Visual** The construction phase of the proposed developments will alter the landscape in the West Clare area. The presence of heavy machinery, construction fencing and signage will have negative short-term cumulative effects on Landscape and Visual Amenity, if both construction phases overlap. In the operational phase, both projects will bring about alterations to the surrounding landscape. Section 1 of the West Clare Railway Greenway The Greenway will be largely using the same linear infrastructure (i.e. chiefly that of brownfield embankments and several stone structures) that was constructed in the late 19th Century. The original rail line will be restored to use through the operations of the Greenway. By

Application Details	General Project Description	Cumulative Impacts Assessment
		following the original rail line along such distances, this also means that an equivalent length of greenfield development is not necessary to facilitate the proposed development. Overall, the projects in combination are anticipated to have a neutral, long-term impact upon Landscape and Visual Amenity.

20.6 References

Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions, European Commission 1999

Environmental Planning of National Road and Greenway Projects RE-ENV-07008 (TII, 2023) and Environmental Impact Assessment of Rural Cycleways (Offline & Greenway) – A Practical Guide PE-ENV-01109, TII 2024

Advice notes on current practice (in the preparation of Environmental Impact Statements), EPA 2003.

Draft Advice notes for preparing Environmental Impact Statements, EPA, 2015.

Guidelines on the information to be contained in Environmental Impact Assessment Reports, EPA, 2022.

Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment, DHPLG, August 2018.

Environmental Impact Assessment of National Road Schemes - A Practical Guide, Revision 1, National Roads Authority/Transport Infrastructure Ireland, 20 November 2008.

Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report, European Commission, 2017.