



# West Clare Railway Greenway Section 1: Kilrush to Kilkee

## ENVIRONMENTAL IMPACT ASSESSMENT REPORT

Volume 1: Non-Technical Summary | June 2026

## **List of Volumes comprising this Environmental Impact Assessment Report**

**Volume 1**    **Non-Technical Summary**

**Volume 2**    **Environmental Impact Assessment Report - Main Report**

**Volume 3**    **Figures**

**Volume 4A**   **Appendices**

**Volume 4B**   **Photomontages**

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Cultural Heritage

**Modelworks**

Photomontages

# West Clare Railway Greenway Section 1: Kilrush to Kilkee

## Non-Technical Summary

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## 1. INTRODUCTION

This document is the Non-Technical Summary (NTS) of the Environmental Impact Assessment Report (EIAR) for the proposed West Clare Railway Greenway Section 1 Kilrush to Kilkee, hereafter referred to as the 'proposed development'.

Clare County Council (CCC), in association with Transport Infrastructure Ireland (TII), proposes to develop a greenway, being an active travel facility for pedestrians and cyclists that is segregated from vehicular road traffic. The proposed greenway is approximately 15.2km in length linking the towns of Kilrush and Kilkee, via the village of Moyasta. The proposed greenway will incorporate the natural beauty of the area and the heritage of the former West Clare Railway.

The EIAR has been prepared in accordance with the requirements of Annex IV of Directive 2011/92/EU (as amended by Directive 2014/52/EU), and comprises "A statement of the effects, if any, which [the] proposed development, if carried out, would have on the environment" (Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022)).

The EIAR has been prepared on behalf of CCC (the Applicant) by Roughan & O'Donovan Consulting Engineers and a team of specialist sub-consultants. The EIAR forms part of the application that will be submitted by CCC, the "Applicant", to An Coimisiún Pleanála (ACP) (formerly An Bord Pleanála), under the Roads Act 1993, as amended, for its determination of the proposed development.

It should be noted that surveys, assessments and information that form the basis of this EIAR are based on the current design of the proposed development which has been developed to a stage that permits a fully informed EIA. While some developments and refinements of the current design may occur during the detailed design stage, any such iterations of the development, if approved, will not include any significant adverse impacts on the environment not dealt with within this EIAR.

### 1.1 Overview of the Proposed Development

The proposed development consists of the following key features:

- A 15.2km greenway between Kilrush and Kilkee, via Moyasta, which generally follows the route of the former West Clare Railway.
- The proposed greenway will mainly comprise a 3m wide asphalt surface with 1m verges and boundary treatments. The overall width may narrow slightly in some sections due to local constraints such as the use of existing railway bridges or embankments.
- Two trailheads are proposed along the route, one at Moyasta and the larger of the two at Kilrush. These trailheads will incorporate car parking, bike stands, picnic areas, bins, toilets and other ancillary facilities.
- Several new structures are proposed to facilitate the crossing of watercourses and roads. These structures include bridges, retaining walls and culverts.
- Over the edge drainage will be implemented across the greenway, with permeable paving and bio-retention swales proposed within the trailhead carparks.
- Stockproof fencing with native hedgerows is proposed for sections of the development bordering or running through private farmland. Existing fencing and hedging will be retained, where possible. Where the route follows the rail corridor, mature vegetation will be preserved, if possible.

- New and supplementary native planting will be installed along verges and other suitable screening and boundary treatments as required along the route.
- Where the development intersects public roads, crossings will be provided.
- Access to properties will be provided where impacts occur as a result of the proposed development, including agricultural crossings of the greenway at various locations along the route as agreed with landowners.
- Construction compounds are proposed to be located at the trailhead locations in Moyasta and Kilrush.

A detailed description of the proposed development is provided in Chapter 4 in Volume 2 of the EIAR and is summarised in Section 4 below. The location of the proposed development is shown in Figure 1-1 below.

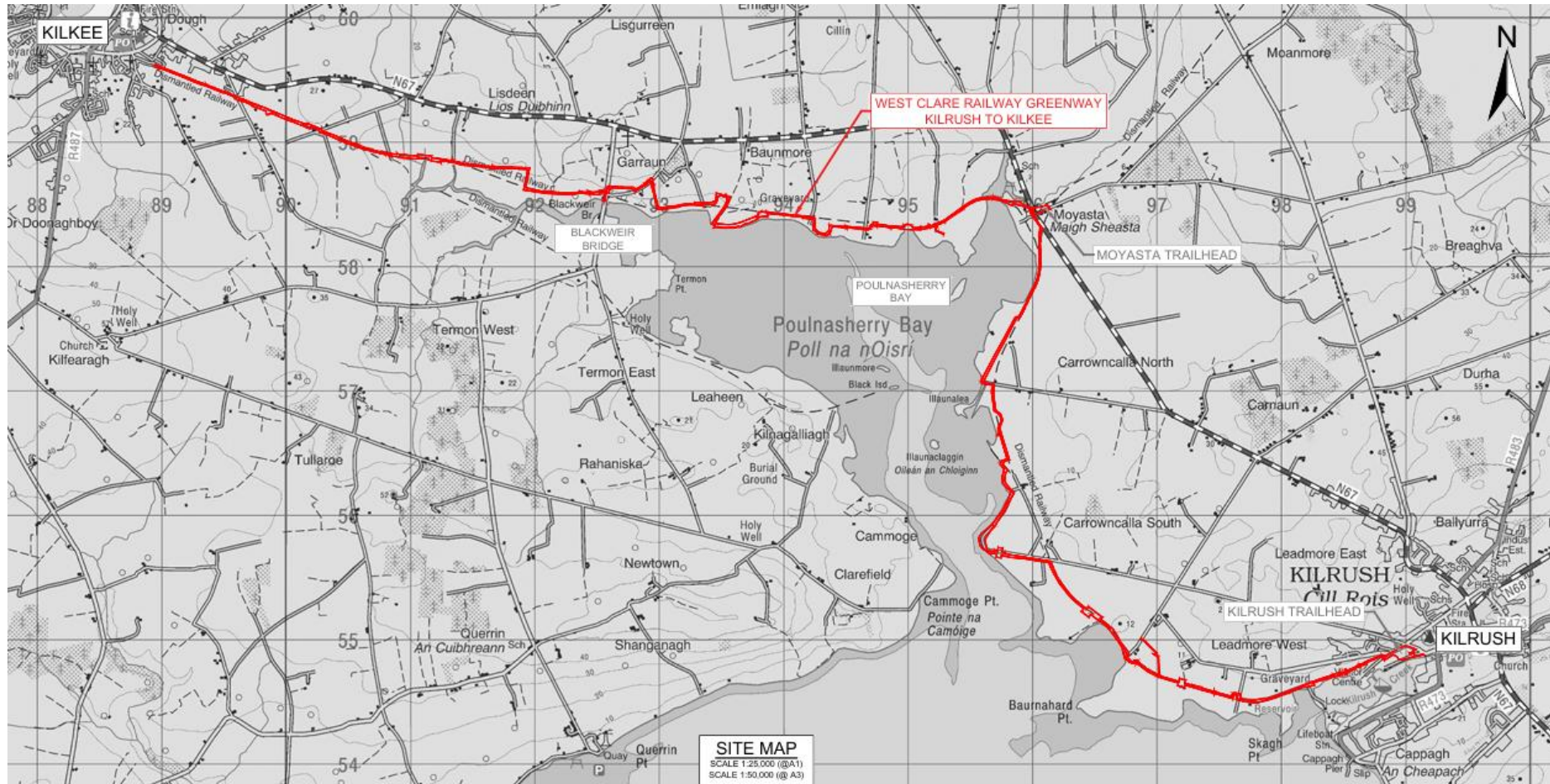


Figure 1-1 Route of the Proposed Development

## 1.2 Legislative Context

### 1.2.1 Environmental Impact Assessment

Directive 2011/92/EU as amended by Directive 2014/52/EU (the EIA Directive) sets out the requirements for environmental impact assessment (“EIA”) for Member States, including screening for EIA. Projects listed in Annex I of the EIA Directive require mandatory EIA while projects listed in Annex II require Screening to determine whether an EIA is required or not. Annex I and Annex II of the EIA Directive have been transposed into Irish Law in the Planning and Development Regulations, 2001 (as amended) Schedule 5 (Part 1 and Part 2).

In addition, a cycleway is defined as a public road under the Roads Act 1993 (as amended), therefore the proposed development has also been assessed in accordance with that Act. Section 50 of the Roads Act 1993 sets out classes of road development that are mandatorily subject to an EIA. The proposed development is not within a class that requires mandatory EIA. However, the likelihood of the proposed development having significant effects on the environment still needs to be considered.

An EIA Screening was prepared for the proposed development which determined it does not exceed the thresholds that trigger the mandatory requirement for EIA and subsequently the proposed development is deemed to be a sub-threshold development. This sub-threshold development has been assessed in accordance with Schedule 7A of the Planning and Development Regulations, 2001 (as amended).

The EIA Screening for the proposed development found that due to the nature and extent of the proposed development and in the absence of the completed design and construction information at the time, likely significant effects as a result of the construction and operation of the proposed development cannot be ruled out across the environmental factors assessed.

It is therefore recommended to An Coimisiún Pleanála, as the competent authority, that the proposed development would be likely to have significant effects on the environment and therefore requires an Environmental Impact Assessment Report (EIAR) to be undertaken to inform the EIA process.

The EIAR has been prepared in accordance with the requirements of the EIA Directive and comprises “*A statement of the effects, if any, which [the] proposed development, if carried out, would have on the environment*” (Guidelines on the Information to be contained in Environmental Impact Assessment Reports (EPA, 2022)).

### 1.2.2 Appropriate Assessment

A separate Appropriate Assessment (AA) Screening has been completed and found that the proposed development, either individually or in combination with other plans or projects, has the potential to give rise to impacts which would constitute significant effects on four European sites, the Lower Shannon Special Area of Conservation (SAC), the River Shannon and River Fergus Estuaries Special Protection Area (SPA), the Illaunonearaun SPA and the Mid-Clare Coast SPA in view of their Conservation Objectives.

#### 1.2.2.1 Natura Impact Statement (NIS)

A Natura Impact Statement (NIS) has been prepared in accordance with the provisions of Part XAB of the Planning and Development Act, 2000 (as amended) to facilitate the carrying out of an Appropriate Assessment by An Coimisiún Pleanála. The NIS contains a comprehensive examination, analysis and evaluation, including recommendations, in respect of the implications of the proposed development, individually and in combination with other plans

and projects, for the integrity of the European sites concerned. The NIS is provided as a separate document accompanying the application.

### 1.2.3 Environmental Impact Assessment Guidelines

The preparation of the EIAR has been informed by relevant national EIA guidelines prepared by the Environmental Protection Agency (EPA), the Department of Housing, Local Government and Heritage (DHLGH) and Transport Infrastructure Ireland (TII) including:

- EPA (2022) *Guidelines on the information to be contained in Environmental Impact Assessment Reports*.
- EPA (2003) *Advice notes on current practice (in the preparation of Environmental Impact Statements)*.
- Department of Housing, Planning and Local Government (August 2018) *Guidelines for Planning Authorities and An Coimisiún Pleanála on carrying out Environmental Impact Assessment*.
- National Roads Authority (November 2008) *Environmental Impact Assessment of National Road Schemes - A Practical Guide, Revision 1*.
- EPA (2015) *Draft Advice notes for preparing Environmental Impact Statements*.

Other guidelines from TII and other bodies have been considered in the relevant technical assessment chapters of this EIAR and are referenced in those chapters.

The following guidelines have also been consulted in the preparation of this EIAR:

- European Commission (2017) *Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report, European Commission*.
- Fáilte Ireland (July 2023) *Environmental Impact Assessment Guidelines*.

## 1.3 Structure of the EIAR

The EIAR has been prepared by Roughan & O'Donovan Consulting Engineers, with the assistance of a team of competent experts, on behalf of Clare County Council (“the Applicant”). The EIAR team are shown in Table 1.1 in Chapter 1 of the EIAR.

The EIAR is presented in four volumes:

- Volume 1: Non-Technical Summary
- Volume 2: Main Text
- Volume 3: Technical Figures
- Volume 4: Appendices

The NIS is provided as a separate document accompanying the application.

## 1.4 Consultation

Consultation during the design and environmental impact assessment process is a key element as part of any project. The main consultations held as part of the proposed development include the following:

- Non-Statutory Public Consultation No.1 on the study area with indicative route options (September/October 2021)

- Non-Statutory Public Consultation No.2 illustrating Route Corridor Options (September 2022)
- Non-Statutory Public Consultation No.3 illustrating the Emerging Preferred Route Corridor (March 2024).
- Non-Statutory Informal EIA Scoping Report issued to Prescribed Bodies (January 2026).
- Pre-Application Consultation with An Coimisiún Pleanála (March 2026).

## **2. POLICY CONTEXT AND NEED FOR THE PROPOSED DEVELOPMENT**

### **2.1 Background and History**

The towns of Kilkee and Kilrush in West Clare are situated along the Wild Atlantic Way. The N67 is a national road which runs from Tarbert, Co. Kerry to Galway, connecting the two towns of Kilrush and Kilkee along its way. The former West Clare Railway corridor runs near the N67, with agricultural land separating the route of the original rail line and the N67 national road. A number of sites attract tourists to the West Clare region, such as the Burren National Park, the Cliffs of Moher, Lahinch and Kilkee. The N67 is the only national road creating a link between these coastal points of interest in the West Clare region, highlighting its importance as a vital amenity for the local population and tourists alike.

The West Clare Railway opened on the 2<sup>nd</sup> of July 1887, connecting Ennis and Kilrush. This steam-driven rail service served as a vital transport link for people in the area until 1948, when road improvements led to more efficient means of transport than the three-hour journey from Ennis to Kilrush. The steam engines were replaced by diesel-engine trains, and by 1955 the West Clare Railway was the only diesel run, narrow gauge railway in Ireland and Britain. The railway closed in 1961 after a number of years running at a loss.

### **2.2 Project Need and Strategic Fit**

Recently published data from the 2022 Census demonstrates the particularly low uptake of cycling and walking as commuting modes of travel for school and work in the towns and villages of Kilkee, Moyasta and Kilrush which span across six Electoral Divisions (ED). Overall, commuters in these ED travelling for school and work comprise 23.8% of the ED local population, of which only 1.4% are cyclists. Only 3.7% of this local population uses public transport as a means of commuting to school or work, while 8% of this population works from home. The reliance on the private car as a mode of transport is striking with almost 50% of this population commuting as either a driver or passenger in a car or van. These statistics reflect the lack of safe, accessible transport infrastructure in the area which would otherwise encourage a modal shift towards more sustainable modes of transport. In the absence of any alternative or segregated active travel route, the main transport corridor connecting Kilkee and Kilrush via Moyasta is the N67, a busy national road which does not lend itself to active travel due to high speeds and high traffic volumes.

Accident data received from TII on reported collisions along the N67 between Kilrush and Kilkee between 2018 and 2025 reflects the dangerous nature of the single carriageway national road. There have been 2 recorded fatalities on the N67 outside of the towns, both of which involved non-motorised users (NMUs) being pedestrians and cyclists. One other minor injury incident for NMUs was also reported. The NMU fatalities both occurred during the day, one of which was report during good visibility and the other with poor visibility. The perception of cycling and walking as an unsafe mode of transport can be compounded by such collision data as described above, particularly where no segregated facilities are available. The potential positive health benefits of active travel modes are not being realised as a result of the low uptake described above.

The West Clare Railway Greenway has significant potential to improve active travel rates and pedestrian and cyclist safety. The development is backed by a number of policies from European to National level, including the EU Cycling Strategy – Recommendations for Delivering Green Growth and an Effective Mobility System in 2030, which supports projects

related to cycle route networks and emphasises the need for segregation between cyclists and other traffic.

The Clare County Development Plan 2023-2029 objectives specifically detail the sustainable development of greenways and the promotion of activity tourism. The development will also offer a scenic and safer alternative for a section of the EuroVelo 1 route, a cycling route of international importance which follows along the coast near Kilrush and Kilkee.

The West Clare Railway corridor is situated in an area of natural beauty. The historic West Clare Railway line borders multiple areas of ecological importance, including the River Shannon and River Fergus Estuaries SPA and the Lower River Shannon SAC. This coastal area offers unspoilt landscapes, making the route ideal for nature tourism. The naturally flat topography of the region ensures its accessibility to a wide demographic, from outdoor enthusiasts to those seeking a leisurely walk or cycle. Tourism related to the former West Clare Railway was previously prominent in the area, with the West Clare Railway Heritage Museum located in Moyasta. The proposed development will enhance the historical significance of this railway by utilising existing structures and, where possible, following the railway line, and will provide a significant tourism boost to the Heritage Museum.

Overall, the development of safe, segregated cycle and walking infrastructure as a means of travel and amenity will benefit the local economy and encourage additional tourism to the county as a whole. This is even more so the case for visitors with vulnerabilities (such as the elderly, young children, those with disabilities, or those within physical impairments). It will address a serious existing safety deficiency for NMUs on the N67 and will provide a significant tourism boost to the West Clare region.

## 2.3 Policy Context

The proposed development aligns with planning and transportation policy objectives at EU, national, regional and local level. Table 2-1 below summarises the plans and policies which support the proposed development.

The National Planning Framework: First Revision (NPF) (April 2025) and the Strategy for the Future Development of National and Regional Greenways (July 2018) both specifically highlight the importance of greenways, and the opportunities associated with them. As set out in the NPF First Revision, an objective is to *“Continue to facilitate tourism development and in particular the Strategy for the Future Development of National and Regional Greenways...”* One of the objectives of the ‘Strategy for Future Development of National and Regional Greenways’ (published in 2018) is to increase the number and geographical spread of greenways throughout the country over the next ten years.

**Table 2-1 Relevant Policies related to the Proposed Development**

Policy Level	Document
<b>International Policy</b>	United Nations 2030 Agenda for Sustainable Development
<b>European Policy</b>	EU Cycling Strategy (2017-2030)
	European Green Deal
	EU Sustainable and Smart Mobility Strategy 2020
	EuroVelo: The European Cycle Route Network
	EU Biodiversity Strategy for 2030

Policy Level	Document
National Policy	National Planning Framework First Revision, April 2025
	National Development Plan 2021-2030
	Vision Zero – The Road Safety Strategy 2021-2030
	National Sustainable Mobility Policy and Action Plan 2026–2030
	Moving Together – A Collaborative Approach to Systems Change in Transport (2026-2030)
	Strategy for the Future Development of National and Regional Greenways 2018
	Tourism Policy Framework 2025-2030
	‘A New Era for Irish Tourism’ National Tourism Policy Statement 2025-2030
	National Investment Framework for Transport in Ireland (NIFTI)
	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 Policy	Southern Region Regional Spatial and Economic Strategy (S-RSES)
Local Policy	Clare County Development Plan (2023-2029) (Interim Version)
	Clare Climate Action Plan 2024-2029
	County Clare Tourism Strategy 2030
	The Clare County Biodiversity Action Plan 2025–2031

Key planning objectives which are set out in local policy documents are outlined below. A more detailed review of the planning policy context is provided in Chapter 2 of the EIAR.

### 2.3.1 Clare County Development Plan 2023-2029

The Clare County Development Plan 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 Clare County Development Plan came into effect on 20th April 2023 in the form of an Interim Version of the Clare County Development Plan 2023-2029. The County Development Plan has identified specific walking and cycling objectives to be implemented between 2023 and 2029, under several headings such as “Tourism”, “Sustainable Communities” and “Physical Infrastructure, Environment and Energy”.

The proposed development supports and complies with the following objectives set out in the County Development Plan:

#### Tourism

Objective CDP9.8:

*“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.”*

*“f. To ensure that development of new or enhanced tourism infrastructure and facilities includes an assessment of the environmental sensitivities of the area including and Environmental Impact Assessment (EIA); Appropriate Assessment (AA) and Strategic Flood Risk Assessment (SFRA) if required in order to avoid adverse impacts on the receiving environment.” and,*

*“g. To ensure the siting of Blue and Green Infrastructure is carefully considered in the context of climate change and resilience and flood protection.”*

Objective CDP 9.26:

*“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.”*

### **Sustainable Communities**

Objective CDP 10.11:

*“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”.*

### **Physical Infrastructure, Environment and Energy**

Objective CDP 11.5:

*“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;”*

*“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;”*

The proposed development is aligned with the objectives of the Clare County Development Plan 2023-2029 by acknowledging the cultural significance of the former West Clare Railway corridor and preserving its rich history while enhancing its appeal as a tourist attraction. The project aims to deliver an approximately 15.2km-long route suitable for walking and cycling, as well as users with mobility impairments. The development will enhance connectivity and provide a safe cycle and pedestrian network across the area.

### 2.3.2 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. The objectives set out in the Kilkee, Kilrush (including Cappa Village and Pier) and Moyasta settlement plans which support the West Clare Railway Greenway, are outlined below.

#### Kilkee

It is an objective of Clare County Council:

*“To prioritise the development of the West Clare Railway Greenway and facilitate an initial Kilrush to Kilkee pilot project in line with Strategic Priority 15 ‘Prioritise the development of the West Clare Railway Greenway’ of the County Clare Tourism Strategy 2030”.*

#### Kilrush (including Cappa Village and Pier)

The draft West Clare Municipal District Settlement Plan for Kilrush (including Cappa Village and Pier) states the following in relation to the West Clare Railway Greenway:

*“The development of the West Clare Railway Greenway along the line of the old West Clare Railway as a proposed recreational route, in particular between Kilrush and Kilkee, is supported in this Plan. The benefits of linking Kilrush and Kilkee are two-fold. It will enhance the existing linkages between the towns in terms of settlement, tourist facilities, expansion of the tourism base for both towns and will also create green infrastructure linkages between the towns. Proposals to redevelop the former railway line will be subject to the requirements of the Habitats and Environmental Impact Assessment Directives.”*

It is an objective of Clare County Council:

*“To prioritise the development of the West Clare Railway Greenway and facilitate an initial Kilrush to Kilkee pilot project in line with Strategic Priority 15 ‘Prioritise the development of the West Clare Railway Greenway’ of the County Clare Tourism Strategy 2030.*

*...To support the development of appropriate micro enterprises along the West Clare Railway Greenway route, subject to proper planning and sustainable development and screening for appropriate assessment.*

*...To safeguard the section of line of the West Clare Railway and incorporate it into any development proposal for the marina as a walking/cycle way that can connect into a riverside walkway and the open countryside”.*

#### Moyasta

The West Clare Municipal District Settlement Plan for Moyasta states the following in relation to the West Clare Railway Greenway:

*“The development of the West Clare Railway Greenway along the line of the old West Clare Railway Greenway as a proposed recreational route is supported in this Plan and in particular the provision of enhanced connections to the village centre and community facilities such as the local school.”*

It is an objective of Clare County Council:

*“To make provision for the continued development of Moyasta train station and the West Clare Railway as an important tourism asset for the village and larger West Clare area, including the development of the West Clare Railway Greenway.”*

The proposed development is referenced within the West Clare Municipal District Settlement Plans for Kilkee, Kilrush and Moyasta, where the development is noted as a priority for Clare

County Council. The greenway will provide means for economic growth through the promotion of tourism and increased accessibility to places of work. The West Clare Municipal District Settlement Plan aims to support sustainable development of the largest municipal district in Clare by promoting settlements with high-quality amenities and employment opportunities, while prioritising environmental preservation. The proposed development will help achieve these aims while easing the reliance on private vehicles and improving local infrastructure.

### 2.3.3 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 Mission Statement of the Plan is to “*deliver and enable climate action for a just transition to a low carbon and climate resilient future within County Clare which results in sustainable growth, a high quality of life, inclusivity, and service accessibility*”.

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 will 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<sub>2</sub>e sources across “*agriculture (67%), land use (18%), buildings (residential, commercial, and public) (11%), and transport (4%)*”.

To inform climate action within the Kilkee and Loop Head Peninsula DZ boundary, a community workshop was held to gather feedback and recommendation from the community on the actions that can be implemented. A list of priority actions were identified across the topics of sustainable energy, sustainable transport, community and economy, and natural environment. Under sustainable transport, the “*development of greenway/cycle lanes in Loop Head Peninsula*” was 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.

### 2.3.4 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. The West Clare Railway 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 is for the Kilrush to Kilkee section of the West Clare Rail Greenway which is consistent with the strategic priorities of this Strategy.

### **2.3.5 Clare County Biodiversity Action Plan 2025–2031**

The Clare County Biodiversity Action Plan 2025-2031 provides a framework for biodiversity action over the next six years with the aim of halting biodiversity loss in County Clare. The new plan supersedes the 3<sup>rd</sup> Clare County Biodiversity Action Plan 2017-2023 which achieved much success under the auspices of Clare County Council.

One of the objectives of the proposed West Clare Railway Greenway is to protect the natural environment of the County Clare region. This is achieved through the design of the proposed development and implementation of the recommended mitigation measures outlined in this EIAR, in particular Chapter 8 Biodiversity. Further detail is provided in Chapter 8 of this EIAR on the alignment of the proposed development with the Clare County Biodiversity Action Plan 2025 – 2031.

## **2.4 Objectives of the Proposed Development**

The objectives of the proposed development have been developed in accordance with the Strategy for the Future Development of National and Regional Greenways (2018). The proposed development will improve connectivity between Kilkee and Kilrush, providing a safe, inclusive mode of sustainable transport while promoting rural development within the area.

The primary objectives of the proposed development, as they apply to Section 1 between Kilrush and Kilkee, are detailed in Chapter 2 of Volume 2 of the EIAR and are summarised as follows:

- To develop and promote a new sustainable tourism visitor attraction using the original West Clare Railway corridor where practicable.
- To contribute towards the decarbonisation of transport in County Clare.
- To encourage the use of and increase the mode share of sustainable transport modes.
- To provide a safe and substantially segregated sustainable transport corridor for vulnerable road users, using quiet routes where segregation is not possible.
- To improve the accessibility and connectivity between rural communities, employment areas, and other key services using sustainable modes of transport.
- To protect the natural environment of the County Clare region.

### 3. CONSIDERATION OF ALTERNATIVES

#### 3.1 Constraints and opportunities Assessment

A constraints and opportunities assessment was undertaken for the proposed development which assessed both Environmental and Physical Constraints. Environmental Constraints and Opportunities were assessed under the following headings:

- Population and Human Health
- Biodiversity
- Soils and Geology
- Hydrology
- Hydrogeology
- Landscape and Visual
- Noise and Vibration
- Air Quality
- Climate
- Archaeology, Architecture and Cultural Heritage
- Material Assets and Land – Agriculture.

A description of the main constraints and opportunities identified for each of the environmental headings is provided in Chapter 3 of the EIAR in Volume 2.

Following on from the Constraints and Opportunities study, the Phase 2 Options Selection process was commenced. This included consideration of 'Do-Nothing' and 'Do-Minimum' options which were considered to ascertain if they were feasible to bring forward throughout the option selection process. Neither option was considered to be an appropriate option to carry forward for further consideration.

A summary of the route corridor options for the proposed development that were considered during Phase 2 is provided below.

#### 3.2 Phase 2 Stage 1: Assessment of Potential Route Link Options

Following the constraints and opportunities study which identified the environmental and physical constraints present within the study area for the proposed development, a 'spiders web' of potential links were identified for the proposed greenway. These potential links were identified along the historic railway line, local and regional roads, hedges and field boundaries.

The Phase 2 Stage 1 exercise assessed these link options, based on project specific objectives, engineering feasibility, economic impact and the environmental impact of each link. This assessment stage focused on engineering constraints together with desktop studies and high-level surveys undertaken to inform the population catchment analysis and environmental constraints and opportunities. In addition to being assessed on their individual merits, the links were also screened relative to each other, resulting in some links being ruled out if more suitable alternatives existed. The potential route links, i.e. the 'Spider's Web' of options were displayed as part of the non-statutory Public Consultation No. 1 (PC1). The link options and assessment of each is summarised in further detail in Chapter 3 of the EIAR. **Figure 1-1**

### 3.3 Phase 2 Stage 2: Route Corridor Option Selection Process

Stage 2 of the options selection process consists of a more detailed qualitative and quantitative assessment based on specific criteria and sub-criteria. The "Transport Appraisal Framework – Appraisal Guidelines for Capital Investments in Transport" (TAF) was published by the Department of Transport in June 2023 and replaced the Common Appraisal Framework (CAF) which was previously followed in the assessment of transport projects.

The Options Selection process was undertaken in line with the TAF assessing each of the route corridor options under the headings of Accessibility, Social, Land Use, Safety, Climate Change, and Local Environment.

Figure 3-1 illustrates the potential route corridor options as displayed during Public Consultation No. 2 (PC2) which were assessed during the Stage 2 Option Selection Process. Following discussions with landowners and members of the public during the public consultation event and upon review of the feedback received, a number of refinements to the route corridor options were made. The refined Route Corridor Options were assessed as part of the Stage 2 Options Selection process as outlined in Chapter 3 of the EIAR in Volume 2.

### 3.4 Preferred Route Corridor

An Emerging Preferred Route Corridor was identified as part of the options selection process which was displayed during a third non-statutory public consultation. Following this, the Phase 2 Option Selection process was concluded with the identification of the Preferred Route Corridor for the West Clare Railway Greenway Section 1.

### 3.5 Approach to Phase 3 Route Development

A preferred route was selected through the Preferred Route Corridor identified at Phase 2. This was an iterative process, considering known constraints and opportunities and carried out in consultation with landowners.

The route was developed based on a range of criteria, including but not limited to those listed below. These criteria were reviewed based on desktop studies, surveys and public consultation undertaken to date, and in consultation with landowners along the route:

- Environmental – designated sites and habitats;
- Topography (Gradients <3% where possible, up to 5% permissible over distance of 150m);
- Horizontal geometry – direct alignment avoiding excessive twists and turns where possible;
- Existing infrastructure, including bridges (and piers/abutments), the original route of the historic railway line and the existing road network;
- Existing residential, commercial and agricultural property;
- Conflicts with the existing road network;
- Land severance – route to align with field boundaries where practicable;
- Connectivity to scenic areas and attractions (Things to See and Do);
- Connectivity to education facilities;
- Connectivity to existing public transport facilities;
- Potential trailheads and terminal points.

### **3.6 Selection of Trailheads, Bridges and Site Compounds**

Following identification of the preferred route, a need for additional parking / trailhead facilities was identified at both Kilrush and Moyasta. In both cases, the availability of undeveloped, appropriate land holdings were identified immediately adjacent to the former railway stations adjacent to the proposed greenway. No alternate more appropriate sites were available in the vicinity, and therefore, these sites were included in the proposed development, subject to environmental assessment. The selection of these sites was also aligned with the aim of the project in utilising and enhancing the former West Clare Railway. In addition, these sites have been zoned as part of the Clare County Development Plan to facilitate future development of the West Clare Railway Greenway.

Following the commissioning of surveys of the usage of existing parking facilities at Kilkee (refer to Chapter 5 of the EIAR, Traffic and Transport), it was determined that there is adequate parking and servicing already available within the town, therefore no trailhead was identified or assessed at Kilkee.

Bridges are required at a number of locations to accommodate the proposed greenway. In each instance, the topography has been reviewed and directly affected landowners consulted to identify the optimal location for the proposed structure. Where feasible, existing bridges have been incorporated into the design to minimise potential impacts on the environment.

During the identification and selection of site compounds, the most appropriate locations were identified at the proposed trailhead locations. Temporary parking and welfare facilities for construction workers will be accommodated along the works corridor where space permits. The two main compound sites were incorporated into the overall description of the proposed development and assessed accordingly within the EIAR.

In summary, the selection of trailheads, bridge locations and site compounds was focused on the use of infrastructure and land associated with the former West Clare Railway, which is consistent with the aims of the proposed development.



Figure 3-1 Potential Route Corridor Options, Non-Statutory Public Consultation No. 2

## 4. DESCRIPTION OF THE PROPOSED DEVELOPMENT

A detailed description of the proposed development is provided in Chapter 4 of Volume 2 of the EIAR, and summarised below.

### 4.1 Introduction

The proposed development comprises a walking and cycling amenity greenway located in County Clare, linking the towns of Kilrush and Kilkee via the village of Moyasta. The proposed development is approximately 15.2km long and will predominantly follow the route of the former West Clare Railway. Two trailheads will be provided as part of the proposed development: the larger of the two is proposed at Kilrush and a smaller trailhead at Moyasta.

The location of the proposed development including the two trailheads is shown in Figure 1-1 of this Non-Technical Summary, and presented in Volume 3 of the EIAR.

### 4.2 Existing Environment

The proposed greenway generally follows the route of the former West Clare Railway and its remaining infrastructure is considered in and of itself to be a cultural heritage feature. Subject to further inspection and detailed design, existing railway structures will be retained and utilised for the greenway including bridges, culverts and pipe drains where possible. In addition, the existing embankments along the former railway line will be utilised where suitable to reduce earthworks and import of fill material, and reduce land clearing and associated habitat loss. Two existing bridges along the alignment are proposed to be utilised for the greenway; the former rail bridge at Moyasta and the L6090 Carrowncalla road bridge.

### 4.3 Preliminary Design

The preliminary design of the proposed development has been developed in accordance with relevant TII Standards, most notably Rural Cycleway Design (offline & Greenway) DN-GEO-03047 (TII, 2025). Additional standards apply where active travel facilities are located adjacent to national roads, including:

- DN-GEO-03030 Design Phase Procedures for Road Safety Improvement Schemes, Urban Renewal Schemes and Local Improvement Schemes (TII, 2021);
- DN-GEO-03031 Rural Link Road Design (TII, 2023);
- DN-GEO-03036 Cross Sections and Head Room (TII, 2023);
- DN-GEO-03060 Geometric Design of Junctions (priority junctions, direct accesses, roundabouts, grade separated and compact grade separated junctions) (TII, 2023).

Additional interfacing requirements will arise with other design standards such as The Design Manual for Urban Roads and Streets, Traffic Signs Manual, and the National Cycle Manual.

In addition, The Greenways and Cycle Routes Ancillary Infrastructure Guidelines, published by the Department of Transport, Tourism and Sport, have been consulted in the design of the proposed trailheads and ancillary infrastructure.

The greenway has been designed to provide Universal Access, with vertical gradients being the key constraint, not exceeding the 5% one step below desirable maximum. Consideration has been given to the needs of NMUs, including wheelchairs, baby-buggies (including double pushchairs), bike trailers, cargo-bikes and tricycles for people with disabilities. An opening

width at access points of 1.5m is optimal for universal access, and has been adopted in the design. Kissing gates (chicanes) are not proposed as they are difficult for bicycles and wheelchairs to navigate.

Key features of the proposed development are summarised below and have been designed in accordance with the relevant design standards and guidelines including those listed above.

#### **4.4 Key Features of the Proposed Development**

The proposed development includes the following key features which are summarised in the following sections:

- The alignment of the proposed greenway;
- Trailheads incorporating car parking
- Ancillary facilities within the trailheads and along the alignment;
- Structures including bridges, retaining walls and culverts;
- Drainage features;
- Fencing, boundaries and verges;
- Landscape planting and screening;
- Access;
- Road Crossings; and
- Signage.

##### **4.4.1 Greenway**

The main feature of the proposed development is the greenway itself, which is approximately 15.2km in length located between the towns of Kilkee and Kilrush via the village of Moyasta (refer to Figure 1-1). The alignment generally follows the route of the former West Clare Railway. However, at discrete locations, the alignment diverts away from the railway corridor onto private agricultural lands where it follows existing field boundaries where possible to avoid impacts to property and habitat.

The greenway will generally be made up of a shared 3m wide asphalt surface track with 1m verges. Where there are local constraints such as use of the existing railway bridges or embankments, the overall width may narrow in parts.

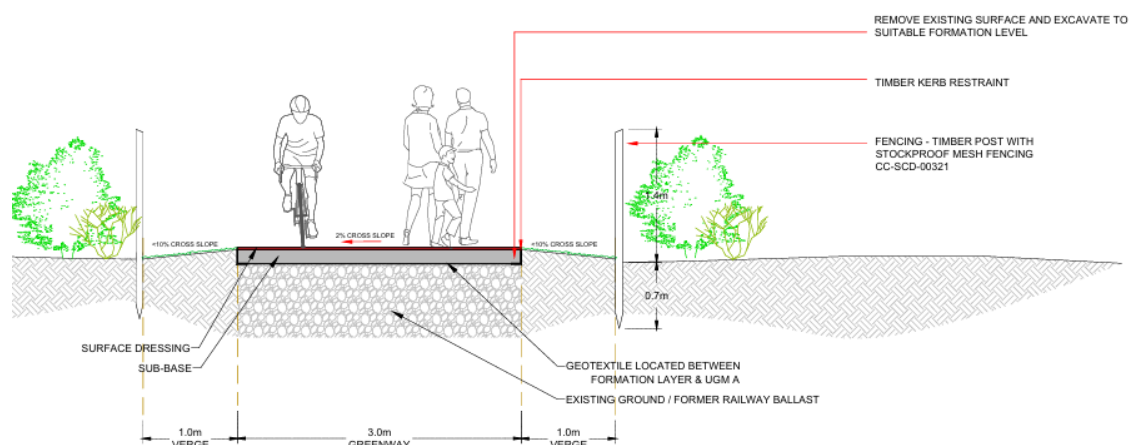
As recommended by TII's Rural Cycleway Design (Offline & Greenway) guidance document, the greenway will have a machine laid closed pavement construction (i.e. asphalt) as the preferred surface treatment for greenways.

The proposed pavement will likely consist of the following:

- Surface Course, 20mm bituminous macadam
- 150mm Sub-base (crushed stone);
- 300mm Capping (larger crushed stone) (where necessary on soft ground)
- Geotextile layer (where necessary on soft ground).

Both the sub-base and surface course should be laid using a paver to ensure a good quality surface for a smooth high ride quality. This single layer of bound material will result in a good quality pavement for minimum cost.

Typical cross sections of the proposed development are included in Volume 3 of the EIAR and shown below for the proposed greenway along the former railway embankment (Figure 4-1).



**Figure 4-1 Typical Cross Section of proposed greenway on former railway embankment**

#### 4.4.2 Trailheads & Parking

Trailheads are proposed at Kilrush and Moyasta, located adjacent to the former station houses. The trailheads will be provided to improve accessibility of the Greenway and will include parking for cars and buses and bike parking, as well as other ancillary facilities as outlined in Section 4.4.3 below.

The proposed trailhead at Kilrush is located at Merchant's Quay adjacent to Kilrush Marina, and encompasses an area of approximately 3.65ha. A controlled zebra crossing facility is proposed to ensure safe greenway user crossing movements across Merchant's Quay. An indicative layout of the proposed Kilrush trailhead is shown in Figure 4-2 below.

A second trailhead, the smaller of the two, is located at Moyasta village along the east side of the N67 opposite Garrihy's Pub, and is just over 0.5ha in area. The field is currently in light agricultural use. The location of the proposed trailhead is well connected, with the N67 National Road and L2036 local road bounding the site, with a set-down area and bus stops directly outside. Moyasta National School is located approximately 250m to the north. A zebra controlled road crossing will be provided for safe movement between the greenway and the trailhead, crossing the N67. An indicative layout of the proposed Moyasta trailhead is shown in Figure 4-3 below.

No trailhead is required at Kilkee. It has been determined through a parking needs analysis that sufficient parking is currently available within Kilkee to accommodate greenway users. This includes various designated parking areas, comprising both public car parks and designated on-street parking, with a total of 243 spaces identified, spread throughout the town (refer to Figure 4-4 below). Greenway users travelling by car to Kilkee will be directed to these existing parking facilities through wayfinding signage and information on the Clare County Council scheme website. Parking restrictions will be imposed in the immediate vicinity of the scheme works tie-in to prevent inconvenience to local residents. Clare County Council will monitor user behaviour and will implement additional enforcement, if required, to ensure parking for the greenway is contained in designated parking areas. Further detail is provided in Chapter 5 of the EIAR.



Figure 4-2 Kilrush Trailhead



Figure 4-3 Moyasta Trailhead



**Figure 4-4 Existing parking facilities in Kilkee**

#### **4.4.3 Ancillary Facilities**

The design of the ancillary facilities has been developed based on the anticipated level of usage. The proposed trailheads at Kilrush and Moyasta will, in addition to proposed parking facilities, include toilets, waste bins and picnic areas for users of the greenway.

The development of the proposed trailheads follows the guidance outlined the Greenways and Cycle Routes Ancillary Infrastructure Guidelines (Department of Tourism, Transport and Sport).

Rest areas will be provided along the route and will include, as a minimum, seating for four people and two Sheffield bike stands.

#### **4.4.4 Structures**

Existing bridges, culverts and pipe drains will be retained and utilised for the greenway where suitable, including the former railway bridge at Moyasta (see Figure 4-5). The L6090 Carrowncalla road bridge will also be utilised by the greenway.

The works to existing bridges will include minor maintenance works (removal of vegetation, repointing, etc.) and additional works such as construction of parapets and fencing to bring the existing bridges up to a sufficient standard to accommodate the greenway.

In addition, there are a number of new structures to be constructed as part of the proposed development as summarised below.



**Figure 4-5 Moyasta Bridge**

New structures proposed as part of the development are summarised below.

#### **River Bridge at Lisdeen, (Ch 2100)**

A new bridge, 5.6m wide x 10m long, is proposed for the greenway at Lisdeen West in proximity to the Lisdeen recycling centre and transfer station, (Ch 2100). This replaces the former railway bridge, which is no longer standing.

#### **Agricultural Vehicle Crossing River Bridge at Lisdeen, (Ch 2100)**

A new bridge, 6.2m wide x 10m long, is proposed at Lisdeen West End in proximity to the Lisdeen recycling centre and transfer station (Ch 2100) for agricultural use. This was requested by the landowner to replace the earlier railway bridge which is no longer standing.

#### **River Bridge at Lisdeen, (Ch 2265)**

A new bridge, 5.6m wide x 16m long, is proposed for the greenway at Lisdeen West (Ch 2265). This replaces the former railway bridge, which is no longer standing.

#### **Agricultural Vehicle Crossing River Bridge at Lisdeen, (Ch 2265)**

A new bridge, 6.2m wide x 10m long, is proposed for agricultural use at Lisdeen West (Ch 2265M). This was requested by the landowner to replace the earlier railway bridge which is no longer standing.

#### **Retaining walls at Garraun, (Ch 3850 to Ch 4100)**

Retaining walls are required at Garraun, from Ch 3900 to Ch 4000 where the greenway is to be constructed in cutting to avoid impacting on adjacent landowners, and also to reconcile steep gradients within the fields.

#### **Earth retaining measures at Moyasta, (Ch 7300 to Ch 7400)**

Earth retaining measures will be required at Moyasta between Ch 7300 and Ch 7400, where the greenway is to be constructed in cutting to avoid impacting on adjacent landowners. The construction will incorporate drainage pipework to drain the retained section to a nearby field drain. A non-return valve will be required on the pipework.

#### **Landowner Footbridge Bridge at Moyasta, (Ch 7390)**

A landowner accommodation overpass (pedestrian only), 3.6m wide x 8m long is proposed at Ch7480 to mitigate severance for the adjacent landowner arising from the construction of the greenway in retained cutting.

### **Turf Canal Bridge at Carrowncalla North (Ch 9175)**

A new bridge, 5.6m wide x 17m long, is proposed for the greenway at Carrowncalla North (Ch 9175). This bridge accommodates the greenway crossing the former turf canal.

### **Box Culvert Cattle Underpass at Carrowncalla South, (Ch 11575)**

A new cattle underpass, 6.2m wide, 3m long, and 2.7m high is proposed at Carrowncalla South to avoid causing severance for the local dairy farmer. The greenway alignment will be raised above ground level at this location and the accommodation route will run beneath at existing ground level.

### **Agricultural Overpass at Carrowncalla South, (Ch 12400)**

A new accommodation overpass, 3.4m wide x 10m long for agricultural crossing is proposed at Carrowncalla South (Ch 12400) at the request of the local landowner to minimise severance cause by the greenway.

### **Retaining walls at Kilrush, (Ch 14950 to Ch 15125)**

Retaining walls are required at Kilrush, from Ch 14950 to Ch 15125 where the greenway is to be constructed in cutting to avoid impacting on adjacent landowners, and also to reconcile steep gradients within the fields.

### **Culverts, (Scheme wide)**

Various new culverts, which vary in dimension depending on the surrounding ground levels, are proposed along the scheme to accommodate the greenway crossing various field drains and streams.

#### **4.4.5 Drainage**

The drainage design will avoid the use of pipework where feasible. Drainage will generally be over the edge, outfalling to existing watercourses via field drains. Permeable paving is proposed within the parking bays at the proposed trailheads, with bio-retention swales along the perimeter.

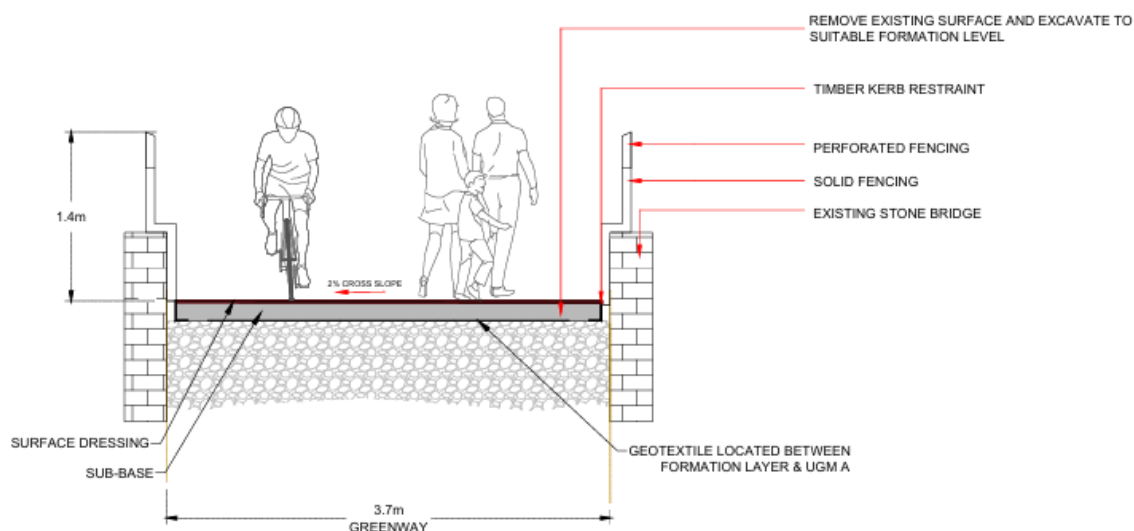
#### **4.4.6 Fencing, Boundaries and Verges**

Timber post and stockproof mesh fencing (CC-SCD-0320) at 1.4m high is proposed along the greenway, or similar alternative. Where possible, the route follows the line of existing field boundaries so existing fencing and hedgerows may be retained. Where new fencing is proposed, it will generally be masked by native hedgerow planting. Additional stockproof fencing will be sensitively installed so as to allow the retention of existing mature vegetation where possible along the route.

Along greenfield sections the proposed development will have the standard 1.4m high stockproof fence or as agreed with landowners so as not to impact on agricultural activities in the area and to ensure that the greenway users are corralled along the designated greenway route. At particular locations where the greenway is situated in proximity to existing residential properties, additional screening is provided to protect privacy. This arises for example at the eastern end of the route in Kilrush where the proposed greenway will pass to the rear of a group of houses and additional screening has been requested by these residents.

The Moyasta bridge is in a particularly sensitive location and will require additional screening measures due to the proximity of wintering birds. The screening across the bridge will comprise a solid panel to raise the existing parapets to 1.1m high, and a 300mm perforated panel to provide a 1.4m high screen in total. An indicative cross section of the greenway

across Moyasta Bridge is shown below in Figure 4-6 (refer also to Figure 4.51 in Volume 3 of this EIAR).



**Figure 4-6 Indicative cross section at Moyasta Bridge**

#### 4.4.7 Landscape Planting and Screening

Vegetation clearance to accommodate construction works will be minimised where possible. New and supplementary planting will be implemented as required for screening and to replace lost habitat. Landscape planting will incorporate native species only and will be implemented as per the specifications outlined in the Biodiversity chapter of the EIAR, Chapter 8 Volume 2, with a particular focus on planting at sensitive bird locations along the bay. A Landscape Strategy incorporating biodiversity requirements is included in the Landscape and Visual chapter of the EIAR, Chapter 15 of Volume 2. Where the greenway runs adjacent to sensitive areas for wintering birds, screening vegetation will be maintained to a level of approximately 1.4m during the wintering birds season (October to March inclusive). The greenway layout drawings including landscaping, are included in the figures in Volume 3 of the EIAR.

#### 4.4.8 Access

Primary access to the greenway will be from Kilrush, Moyasta and Kilkee, with parking provided at the trailheads in Kilrush and Moyasta, and existing parking available in Kilkee. Further pedestrian and cyclist access to the greenway will also be available via the various local roads which it will intersect.

The strategic use and placement of signage and other street furniture will be used to restrict vehicular access but to allow easy and unimpeded access for all other greenway users, and will be removable to permit access for maintenance vehicles. An opening width at access points of 1.5m has been adopted in the design as considered optimal for universal access.

There are a number of locations where the greenway passes beside or between properties. Property access and boundary treatment has been developed in consideration of the property owners, including privacy screening where requested. A number of agricultural crossings will be provided along the greenway where it intersects agricultural land, as agreed in consultation with landowners.

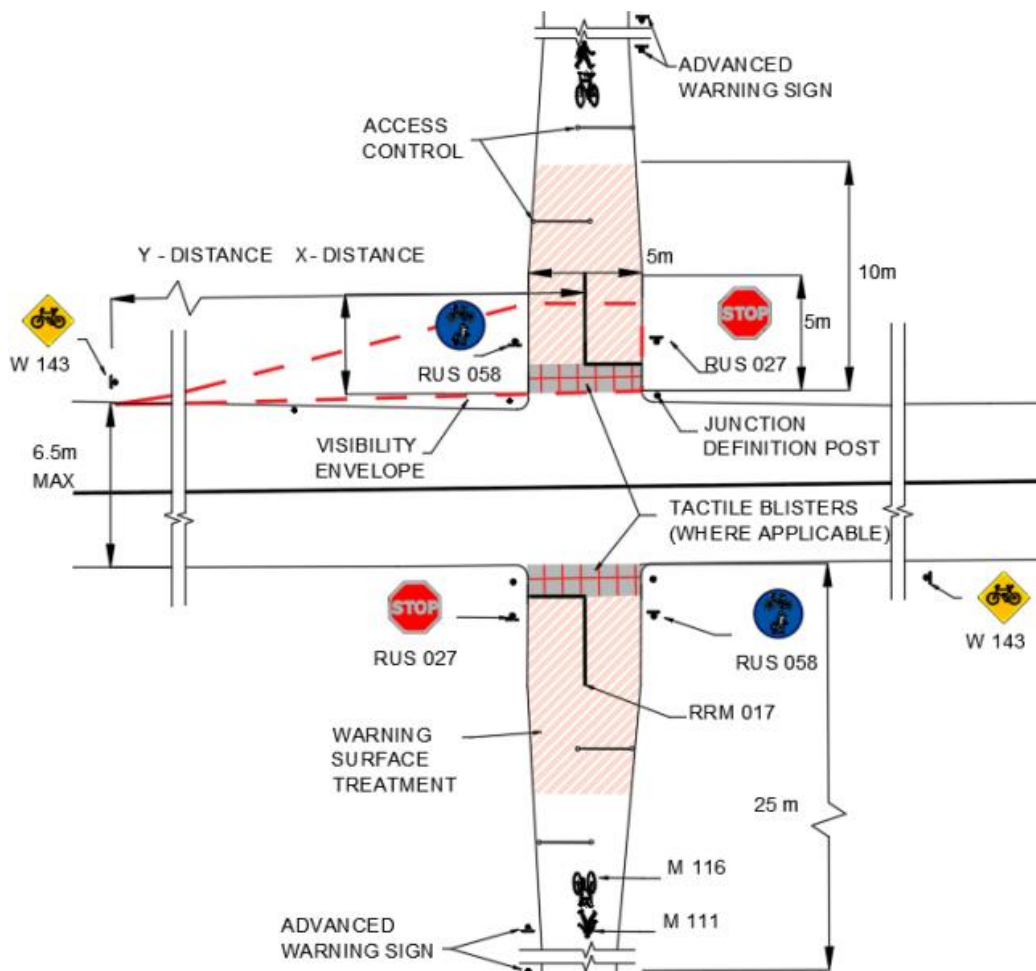
There are two locations where the greenway must accommodate occasional shared use. These are at Moyasta Bridge, where occasional access is required for access to the farmlands to the west, and at Kilrush, where occasional maintenance access to the Kilkee Marina lock

gates is required. This infrequent usage is similar to maintenance vehicle activity along the greenway and can be accommodated without appreciably discommoding greenway users.

#### 4.4.9 Road Crossings

There are a number of locations where the greenway intersects public roads. Road crossings will be designed to ensure safe crossing including provisions to slow cyclists approaching the road and to prevent motor traffic access to the greenway. Pedestrians and cyclists crossing the road will give-way to road traffic. Road markings and clear signage will be provided so that traffic is aware of the greenway crossing and can drive with extra care. At busier road crossings, a controlled crossing will be provided including zebra controlled crossings proposed to provide access to the trailheads at Moyasta and Kilrush. A typical rural road crossing layout is shown in Figure 4-7.

Agricultural crossings will be provided to comply with TII DN-GEO-03047-04. In general, greenway users will have priority without risk of livestock inadvertently straying onto the greenway. Where the crossing is in use by the farmer, the gates will swing across the greenway to temporarily close the greenway route until the livestock has crossed. Disruption to greenway users will be temporary and short duration. Additional greenway priority measures may be implemented as part of the crossing systems if specific farm activities result in the gates being closed for greenway users for an extended period without any direct farm crossing activities occurring, whereby an adjacent bypass gate, as shown in Figure 4-8 below, may be incorporated. Consultations with landowners have been held throughout the preliminary design stage to refine the locations and designs of the agricultural crossings on a case-by-case basis.



**Figure 4-7** Typical rural road crossing



**Figure 4-8** Example of enhanced farm crossing (Location: The Waterford Greenway)

#### 4.4.10 Signage

Appropriate signage will be provided to bring users to and along the greenway route, and to inform users about the route and its environs (refer to Figure 4-9). Regulatory and warning signs will be provided at access points to the greenway. Warning signs will be provided to require that dogs are maintained on a leash at all times, and that dog owners are required to pick up and dispose of dog excrement using the bins provided at every interface with the road network and within the trail heads.



**Figure 4-9** Example of an information sign

## 4.5 Construction Works

The construction programme for the proposed development is anticipated to begin in 2027 and last between 16 and 24 months, with the proposed development expected to be completed by 2029. Construction works will be limited to between the times of 7:00 and 19:00hrs Monday to Friday and 8:00 to 16:30hrs. The site will be closed on Sundays and during public holidays.

The anticipated works staging for construction are as follows:

- Mobilisation to Site and Compound set-up;
- Erection of temporary signage;
- Site clearance works (programmed to take account of timing restrictions outlined in Chapter 8 of the EIAR, Biodiversity);
- Landscaping planting and fencing on the bay side at sensitive bird areas (as identified in Chapter 8 of the EIAR, Biodiversity);
- Erection of temporary stock-proof fencing;
- Earthworks and excavation;
- Temporary retaining structures installed as required;
- Any services and drainage features installation as necessary;
- Construction of retaining structures;
- Removal of temporary retaining structures;
- Capping and deposition of fill;
- Sub-base construction and compaction;
- Regrading and deposition of verges;
- Remaining Landscaping and planting;
- Any remaining stockproof fence installation;
- Surface course laying;
- Signage and road markings.

In accordance with Chapter 8 of the EIAR, Biodiversity, timing restrictions will apply to certain construction activities and locations to avoid risks to nesting and wintering birds as summarised below:

- Vegetation clearance works will be programmed to take place outside the nesting bird season (March to August inclusive) – therefore can be undertaken in September and October. Vegetation clearance within sensitive bird areas (as identified in Chapter 8 Biodiversity) will be programmed to take place in September only to avoid the wintering bird season (October to March inclusive) and the nesting bird season (March to August inclusive).
- Construction works (subject to the above restrictions for vegetation clearance) across sensitive bird areas will be programmed to take place during the summer months (April to September inclusive), except for landscape planting which will be required to take place during winter months. If appropriate screening measures are in place, some works may be permitted within the winter period only under explicit approval by the Ecological Clerk of Works.

#### **4.5.1 Construction Compounds**

Temporary construction compounds are proposed at the proposed trailhead locations at Kilrush and Moyasta in advance of their construction. These sites will be used for storing machinery, materials and for construction parking as well as provision of welfare facilities (toilets, etc.) for workers during the construction phase.

In addition to the above, temporary construction zones for craneage will be required at the locations of proposed bridges.

The following activities will be undertaken at the outset of the construction process to facilitate construction compounds:

- Site clearance and excavation of topsoil with import and spread of a gravel foundation 0.3m thick.
- The excavated topsoil will be used to form landscaped bunds around the perimeter.
- Installation of drainage ditches and specified planting.

The compound sites will be cleared towards the end of the construction phase in conjunction with commencing the construction of the proposed trailheads at these locations.

#### **4.5.2 Site Clearance and Landscaping Works**

Vegetation clearance to accommodate construction works will be minimised where possible. Existing hedgerows and treelines that form the boundaries of the railway corridor and field boundaries will be retained. Where vegetation clearance is required to accommodate the construction works, this will be carried out in accordance with the seasonal restrictions identified in the EIAR Chapter 8 Biodiversity. The existing Moyasta railway bridge contains some vegetation which will need to be removed by handheld tools.

In addition, new planting will be installed at sensitive bird locations along the bay side at the commencement of construction works to allow time for the planting to mature in order to provide the necessary screening once the greenway is open for operation. Remaining planting will be carried out on completion of the main construction works.

#### **4.5.3 Earthworks and Groundworks**

The construction footprint will be approximately 7-10m wide to accommodate landscaping and planting. Excavation along the greenway will generally be limited to topsoil stripping in greenfield sites, typically to a depth of approximately 120mm. Where the proposed alignment is located along the route of the former railway, the embankments and ballast will be retained as a foundation where still in place.

Some cut and fill will be required along the remaining length of the greenway where gradients are challenging, and on the approaches to structures. The indicative quantities of cut and fill are estimated at 9,500m<sup>3</sup> and 27,500m<sup>3</sup> respectively.

Crushed rock sub-base material will be imported for a 150mm thick pavement base layer to be constructed using a paving machine. A 20mm bitumen bound surfacing course will seal the pavement. There is a requirement for approximately 1,560m<sup>3</sup> of bituminous material for the surfacing of the greenway. Verges will be graded to provide a 50mm level difference between the surface level and the surrounding ground levels. Over the edge drainage will be implemented.

#### 4.5.4 Structures

The works to existing bridges will include minor maintenance works (removal of vegetation, repointing, etc.) and additional works such as construction of parapets and fencing to bring the existing bridges up to a sufficient standard to accommodate the greenway. Any railway infrastructure will be removed and a greenway surface laid as per the design.

The surface of the Moyasta bridge (Ch 7890M) is covered in vegetation. This vegetation will need to be removed by handheld tools. No spraying shall be permitted. All such vegetation removal works shall take place from the bridge and no in-stream works will be permitted take place.

The existing Carrowncalla Bridge (Ch 9780M) will be reused for the greenway. The existing bridge crosses the former turf canal. In general, the Carrowncalla Bridge is clear of vegetation. Some localised clearance may be necessary through the centre its surface.

The construction methodology for proposed new bridges, culverts and retaining walls is included in the EIAR Chapter 4, and summarised below.

The general construction methodology for proposed bridges will involve:

1. Excavation of soil and installation of piles.
2. Construct reinforced concrete abutments.
3. Backfilling of soil around substructure.
4. Delivery and lifting into place the prefabricated concrete beams.
5. Casting of concrete deck and stitching.
6. Installation of pavement and finishes.

The general construction methodology for proposed box culverts will involve:

1. Excavate to foundation level and prepare formation.
2. Install precast concrete box culvert units.
3. Construct reinforced concrete wingwalls.
4. Backfilling of soil.
5. Installation of pavement and finishes.

The general construction methodology for proposed retaining walls will involve:

1. Excavate to foundation level and prepare formation.
2. Pour concrete foundation.
3. Install formwork and steel reinforcement.
4. Pour concrete retaining walls.
5. Remove formwork.
6. Backfilling of soil.
7. Installation of pavement and finishes.

#### 4.5.5 Construction of Road Crossings

Works to existing roads at greenway crossings are generally minor in nature, comprising road markings and signage installation only, and localised traffic calming or resurfacing only where required. Road closures are not envisaged for these minor road crossing works. One significant road crossing is proposed at Moyasta to install the zebra crossing across the N67.

It is expected that this will require short term temporary traffic management measures during construction to accommodate the construction works.

#### **4.5.6 Construction of Trailheads**

Towards the end of the construction phase in conjunction with the decommissioning of the construction compounds, the proposed trailheads will be constructed including the foundation, sub-base and surfacing of the car park internal roads, installation of permeable paving across the proposed parking bays, provision of public lighting within the car park, planting of screening landscaping. The general construction methodology for proposed compounds / trailheads is summarised below.

The following works will be undertaken towards the end of the construction process in conjunction with the decommissioning of the construction compounds:

- Installation of permeable paving system to proposed parking bays
- Foundation, sub-base and surfacing of the car park internal roads.
- Provision of public lighting within the car park in accordance with the biodiversity requirements outlined in Chapter 8 of the EIAR.
- Planting of screening landscaping including trees and shrubs.

#### **4.5.7 Waste Management**

Waste generation will be limited during construction due to the greenway generally following existing railway embankments or crossing greenfield land. It is intended that excavated soils will be reused within the scheme for landscaping insofar as possible. The construction contractor will be required to ensure that raw materials are ordered so that the timing of delivery, the quantity delivered, and the storage is conducive to the good site practices and does not create unnecessary waste

There is potential that contaminated land may be identified along the route of the former railway corridor and within the trailheads, due to various historic land uses. The preliminary ground investigation works completed to date did not identify any known contamination with results indicating the material to be inert at assessed locations, including the proposed Kilrush trailhead. During construction, the contractor will be required to test and classify excavated materials and to collect and segregate the different waste types for recycling and / or removal to landfill as required.

The Construction Environmental Management Plan (CEMP) and associated Resource Waste Management Plan (RWMP) will include measures to ensure any contaminated land encountered during construction is managed and disposed of in accordance with best practice. This includes the management and disposal of railway wooden sleepers which may contain creosote, a wood preservative that was used historically on railway sleepers and contain potentially hazardous materials. A preliminary CEMP and RWMP are included in the appendices in Volume 4 of the CEMP.

#### **4.5.8 Utilities**

There are no known utilities along the route of the proposed development that will need to be diverted. It is likely that there are various local private connections across the greenway, and these will be protected and retained in situ during construction. Where water and wastewater mains are located within local roads, these will be protected where they are intersected by the proposed development. All utility companies will be consulted as part of the detailed design to ensure that no services are unexpectedly encountered during construction.

#### **4.5.9 Construction Environmental Management Plans**

As identified above, a preliminary CEMP has been prepared which outlines measures to be implemented during construction to reduce and manage the environmental impact of the proposed construction works. This will form the basis of the final CEMP to be prepared by the appointed construction contractor if approved. An Environmental Operating Plan (EOP) has also been prepared as an appendix to the CEMP, along with an Incident Response Plan (IRP) and the RWMP as identified above. The mitigation measures identified in the EIAR and NIS have been incorporated into the CEMP.

## 5. TRAFFIC AND TRANSPORT

Chapter 5 of the EIAR assesses the potential traffic and transportation impacts of the proposed development. The assessment considers the baseline scenario as per the 2024 traffic survey, and the future-year traffic forecasts developed for the construction year (2027) and operational year (2029) assessed under the 'Do Nothing' and 'Do-Something' Scenarios. The assessment identifies appropriate mitigation measures required to mitigate adverse impacts on the traffic and transport network as a result of the proposed development.

### 5.1 Receiving Environment

The existing road network is centred on the N67 national road, which currently carries low to moderate traffic volumes. Background traffic flows were established through traffic surveys undertaken in August 2024, as well as data taken from a TII Traffic Monitoring Unit (TMU). These estimates, showing the Annual Average Daily Traffic Flows (AADT) are presented in Table 5-1 below. The methodology for these estimates can be found in Chapter 5 Traffic and Transport in Volume 2 of this EIAR.

**Table 5-1 Existing Traffic Flows**

2024 (Baseline)	AADT	% HGV
N67 Kilkee	2342	0.6%
N67 Moyasta	3345	0.6%
N67 Kilrush	2258	2.0%

### 5.2 Potential Impacts and Mitigation

There will be no impact as a result of the proposed development on the road network under the 'Do-Nothing' Scenario during construction and operation. However, background traffic growth accounted for under these scenarios provides a baseline against which greenway generated activities can be compared under the 'Do-Something' scenario. A summary of the potential construction and operation phase impacts is provided below.

#### 5.2.1 Construction Phase

During the construction phase, which is expected to last approximately 24 months, there will be a temporary increase in traffic from construction vehicles, including trucks delivering materials and cars used by construction workers. At peak times, up to 20 two-way truck movements per day may occur. The proposed trailheads at Kilrush and Moyasta will be used as temporary construction compounds, and can be accessed almost directly by the N67 with short sections of local road required in Kilrush. Construction workers travelling to and from site will generate up to 100 one-way light vehicle trips (assuming only 1 person per vehicle) a day during peak construction. In reality, the numbers are likely to be lower, allowing for car-pooling of workers.

Overall, the potential impacts of the proposed development on the local road network will be 'temporary' to 'short-term' in duration, and 'moderate' in significance. A construction Traffic Management Plan will be implemented to manage traffic safely, minimise disruption, and protect road conditions.

### **5.2.2 Operational Phase**

During the operational phase, traffic increases will mainly relate to visitors driving to the greenway and parking at Kilrush, Moyasta, and Kilkee. No significant heavy vehicle traffic is expected. Forecast traffic increases on the N67 are modest and remain well within capacity of the road network, even under higher growth scenarios. Parking will be provided as part of the proposed development at the trailheads in Kilrush and Moyasta. There is extensive existing public parking in Kilkee (refer to 4.4.2), therefore no additional parking is proposed in Kilkee. The proposed development has been assessed as sufficient to accommodate expected demand, with nearby public parking available for occasional peak use.

Overall, it has been assessed that the proposed development can be accommodated by the existing road network without significant adverse effects during operation.

### **5.3 Residual Effects**

With the proposed mitigation measures in place, residual impacts on the surrounding road network during construction are expected to 'slight' to 'moderate' in significance. During the operational phase it is envisaged that the traffic impact of the proposed development will be 'slight' to 'moderate' in significance.

Overall, the proposed development can be accommodated by the existing road network during construction and operation and is not expected to result in significant residual traffic or transportation impacts.

## 6. POPULATION

Chapter 6 of the EIAR assesses the likely population impacts of the proposed development during construction and operation in relation to the following key population attributes: Private property and housing, Community land and assets, Socioeconomics, businesses and development land, and Non-Motorised Users (NMUs).

### 6.1 Receiving Environment

A 500m distance from the proposed development boundary was used as a starting point to determine the Zone of Influence (Zoi) for the population assessment. It is recognised that transport infrastructure can influence activities across a wide area. For this reason, a wider Zoi of 1km from the proposed development was also included to fully inform the population assessment. Baseline data has been assessed across the Electoral Divisions (EDs) that are wholly or partially contained within the Zoi; Kilkee, Kilfearagh, Einagh, St. Martin's, Kilrush Rural and Kilrush Urban. These are shown in Figure 6.1 in Volume 3 of the EIAR.

#### 6.1.1 Private Property and Housing

The predominant land use across the Zoi between the settlements is agriculture, following the route of the former West Clare Railway. Therefore, interactions with private property and housing are minimised and more prominent on approach to the settlements of Kilkee and Kilrush and to a lesser extent Moyasta.

#### 6.1.2 Community Land and Assets

There are a number of community land assets available in the Zoi, such as educational facilities, places of worship, healthcare facilities and a number of open green spaces. These are shown on Figure 6.2 in Volume 3 of the EIAR. One area of land zoned for Open Space in the Development Plan was subject to a condition survey which identified this land as being vacant and overgrown and currently not in use as a community facility.

#### 6.1.3 Socioeconomics, Businesses and Development Land

West Clare is a popular destination for domestic and international tourists, with close proximity to Shannon International Airport and a variety of accommodation available. The towns of Kilkee and Kilrush are popular tourist destinations associated with exploring the Wild Atlantic Way, Loop Head Peninsula and West Clare. There are a number of businesses servicing the tourism industry including several tourist accommodations and eateries in Kilkee and Kilrush and Kilrush Marina which offers year-round employment to the area.

#### 6.1.4 Non-Motorised Users (NMUs)

The proposed development is located in a predominantly rural area which is heavily dependent on private vehicle use and currently has very limited infrastructure for non-motorised users (NMUs). Many streets in the vicinity of the proposed development are not of adequate width to safely accommodate pedestrians, cyclists, parked cars and moving vehicles. At present, there is no safe corridor for NMUs to travel between the settlements. The N67 national road is the main transport link, with a speed 100km/hr speed limit and high traffic volumes.

There are a number of walks and cycle routes of local and regional importance that cross the Zoi, including Kilkee cliff walk which is an 8km looped walk following the Kilkee coastline. The Eurovelo 1 cycle network includes a 68km stretch between Kilkee and Kilrush, with a small section interacting with the proposed development at Moyasta for a short distance along the N67, as well as the local road crossing at Lisgreen / Garraun road north of Blackweir Bridge.

## 6.2 Potential Impacts and Mitigation

### 6.2.1 Construction Phase

#### 6.2.1.1 *Private Property and Housing*

Temporary land take and temporary access restrictions to residential properties will occur during the construction phase. This will result in direct, slight, negative, temporary impacts. Indirect impacts on residential properties in the vicinity of the proposed development may arise as a result of general construction activities, resulting in negative, imperceptible, and temporary impacts during construction. A Construction Traffic Management Plan (CTMP) will be implemented for the duration of the construction phase.

#### 6.2.1.2 *Community Lands and Assets*

The majority of the proposed development follows the route of the abandoned West Clare Railway or is located on greenfield lands which are largely used for agriculture. Therefore, impacts to community land and assets is reduced. One small area of land zoned open space in Kilkee will be directly impacted by the proposed development, located at the western end of the proposed greenway at the tie-in with Percy French Estate. This area is associated with the former railway corridor and is currently overgrown and not in use by the wider community. The proposed greenway also ties in with the existing car park at Brews Bridge beach area, with potential short-term, indirect, negative effects during construction.

#### 6.2.1.3 *Socioeconomics, Businesses and Development Land*

A total of approximately 250 jobs are expected to be generated during the 24 month construction phase, calculated using the direct employment calculation contained in TII 2025 Guidelines (TII, 2025). This is anticipated to have a direct, slight, positive, short-term impact on the local economy.

Construction activities are likely to result in temporary to short-term indirect negative effects on businesses in close proximity to the proposed works due to noise, air, visual amenity and traffic disruption. In particular Garrihy's Pub at Moyasta will be impacted due to works to be carried out in front of the property, and a temporary compound located across the road for the majority of the construction phase. Similarly works at the temporary compound in Kilrush may have indirect effects on businesses operating within the adjacent marina area. Negative, indirect, slight and short-term impacts are likely on these local businesses during construction.

#### 6.2.1.4 *Non-Motorised Users (NMUs)*

The majority of the proposed development is located offline of the existing road network, following the route of the former railway line and through adjacent agricultural lands. Neutral effects on NMUs are envisaged at this location as the public generally do not have access to these lands. On local road networks, negative, indirect slight to imperceptible, temporary to short-term effects are likely due to the general presence of construction machinery and activities along the road network used by NMUs in proximity to the construction compounds.

Where the proposed works are online of the existing road network, namely at crossings of public roads at various locations, and in Moyasta, where the greenway follows the existing N67 for approximately 215m, works are likely to cause some minor disruption to NMUs. Due to the minor nature of these impacts, the potential effects on NMUs are direct, slight, negative and temporary.

### 6.2.2 Operational Phase

#### 6.2.2.1 *Private Property and Housing*

As the greenway approaches Kilkee, it passes adjacent to lands zoned as 'Existing Residential' and zoned 'Residential'. In Kilrush, the proposed development passes in between

lands zoned 'Residential' and 'Existing Residential'. There will be minimal land take during operation, with a neutral effect on private property and housing.

#### **6.2.2.2 Community Lands and Assets**

The proposed development directly impacts on a small area of zoned open space in Kilkee, and acquisition of the road bed at Brews Bridge car park. No other community land or assets are directly impacted during the operational phase. The proposed development will become a new community asset itself, whilst providing an opportunity for improved social cohesion and access to communities along the greenway, and between the three settlements of Kilkee, Moyasta and Kilrush. The proposed development will also significantly improve pedestrian and cyclist access to community amenities and facilities in the wider area. The proposed development will have significant, positive, long-term to permanent effects on community land and assets during operation.

#### **6.2.2.3 Socioeconomics, Businesses and Development Land**

It is likely that economic opportunities will arise as a result of the proposed development, particularly in the hospitality sector as well as in bike hire and repair services. According to the calculations completed as part of the traffic assessment to inform the EIAR, in the Opening Year the average daily usage of the greenway is estimated to consist of c. 500 pedestrian and 320 cyclist trips which equates to approximately 295,000 trips per annum. It is noted that user numbers are likely to seasonally fluctuate, with greater user numbers predicted during the summer season. Therefore, positive, significant and long-term effects on Socioeconomics, Businesses and Development Land within the Zol and wider area are likely during operation.

#### **6.2.2.4 Non-Motorised Users (NMUs)**

The proposed development will provide dedicated and segregated pedestrian and cyclist facilities for NMUs. The proposed greenway will serve as a safe travel route, an amenity which was not previously available, especially within the rural areas of the Zol. The greenway will also provide links to other popular recreational routes in the locality such as the Kilkee Cliff Walk. It will also complement the existing Eurovelo route by offering a safer off-road alternative for sections of the route between Kilrush and Kilkee, in particular where the route is currently shared with the N67. Therefore, the proposed development will have positive, direct, very significant, and long-term effects on NMUs during operation.

### **6.3 Residual Effects**

With the application of the mitigation measures related to Population described in Chapter 5 Traffic and Transportation, Chapter 13 Air Quality, Chapter 14 Climate, Chapter 15 Noise and Vibration, Chapter 17 Landscape and Visual, Chapter 18 Material Assets and Land of the EIAR, no likely significant negative impacts are predicted during construction or operation of the proposed development.

## 7. HUMAN HEALTH

Chapter 7 of the EIAR addresses the potential human health impacts related to the construction and operation of the proposed development. The Zol as assessed in the Population chapter (as above) was applied to the assessment of human health impacts. The health determinants assessed include community and lifestyle, socio-economic factors, environmental conditions (air, noise & vibration, hydrology, hydrogeology, soil), and climate.

### 7.1 Receiving Environment

According to the 2022 Census data, 72.7% of the population in the Zol stated having good health which is below the Clare County average of 82.6% and the State average of 82.9%. This may be attributed to the higher percentage of over 65s resident in the Zol. Based on the HP Pobal deprivation scores (an index which measures the relative affluence or disadvantage of a geographical area) for the EDs (Pobal, 2022), the average deprivation score of the Zol is -6.18, 'marginally below average'. Baseline air, noise, water, soils and climate conditions have been established and are also described in greater detail in the respective EIAR Chapters and summaries below. Overall, the health sensitivity of the community was considered to be 'high' for the purpose of the human health assessment.

### 7.2 Potential Impacts and Mitigation

#### 7.2.1 Construction Phase

##### 7.2.1.1 *Community and Lifestyle*

The construction phase of the proposed development has the potential to create disturbance, nuisance and/or annoyance among local residents and workers due to the generation of noise, dust, visual and traffic impacts. Negative impacts are assessed as *slight* due to the linear nature of the proposed development. It is considered that the construction phase of the proposed development will *not result in any negative significant* psychosocial effects on the community, including vulnerable groups, as a result of the proposed development. Construction workers will be exposed to a risk of potential accidents occurring while working at heights, and at or near water. The Environmental Operating Plan (EOP) will be required to address these risks.

##### 7.2.1.2 *Socio-economic Factors*

Private houses or commercial premises will not be acquired or demolished for the purposes of the proposed development, however permanent land take within some private and commercial properties will be required, resulting in *slight to not significant, permanent* and *negative* effects on properties.

The proposed development will directly employ approximately 250 construction workers over the 24-month period, resulting in *positive, short-term* effects on health within the communities. The operation of existing local businesses will not be impacted by the proposed works.

##### 7.2.1.3 *Environmental Conditions*

Potential impacts on air quality will occur during construction works due to construction dust emissions and the potential for nuisance dust. The impacts on human health have been classified as *negligible* to '*low*' risk.

Noise predictions have been prepared for various distances from the proposed works which will typically be within rural areas. Predicted construction noise levels at noise-sensitive properties have been identified for various construction activities including distances ranging

from 35m to 70m within which the relevant construction noise criteria would be exceeded, i.e. the level at which a potential significant impact could be expected to occur. In the absence of noise mitigation, a *negative, significant to very significant, and temporary impact* is likely. In terms of construction vibration, standard excavation machinery will be used which typically do not generate noticeable levels of vibration. Piling at areas where bridges will be constructed will be done using augured piling methods. This piling method is less intrusive than other piling methods by minimising vibration at nearby receptors. The associated impact is considered to be *neutral, imperceptible, and temporary*.

In terms of hydrology, the majority of the works have potential for negative, slight, direct or *indirect temporary* impacts on water quality. *Significant* impacts were identified as potentially occurring on Termon East waterbody at Lisdeen due to concrete works for bridge construction, however impacts will be minimised through the implementation of the identified mitigation measures outlined in Chapter 10 of the EIAR, Hydrology, which have been incorporated into the CEMP.

If not appropriately managed, works required to remove old railway sleepers and potentially contaminated soils along the route have the potential to mobilise contaminants and leach into the receiving groundwater. *Negative, imperceptible* effects on human health are likely. In addition, cement works and the use of deleterious materials may result in an *unlikely, negative, moderate to significant and short-term* impact on groundwater.

Flood events may have the potential to mobilise contaminants during the construction phase. In the absence of appropriate mitigation measures, it is considered that this could result in an *unlikely, negative, moderate to significant and temporary* effect on the receiving surface waters depending on the nature of the incident. The construction compounds will be located at the proposed trailhead locations. There will be a *likely, neutral, imperceptible and temporary* effect on the receiving hydrogeological environment during operation of the compound sites.

#### **7.2.1.4 Climate Resilience**

Potential impacts of climate change on human health during construction include increased flood risk, increased temperatures causing potential water scarcity and hot weather, reduced temperatures resulting in potentially hazardous working conditions, storm damage resulting in wind damage and coastal flooding. The construction Contractor will be required to mitigate against the effects of potential climate change risks through conducting site risk assessments and preparing appropriate method statements. The likely effects on the health of construction workers from climate related hazards will be *negative, slight to imperceptible, and short-term*.

### **7.2.2 Operational Phase**

#### **7.2.2.1 Community and Lifestyle**

By providing a dedicated, segregated and continuous pedestrian and cyclist infrastructure, the proposed development may be expected to improve road safety for users resulting in *moderate to significant, positive, long-term to permanent* human health impacts. The development will also encourage active travel as a means of transport, benefiting individual health and a cleaner environment. The proposed development will provide enhanced connectivity between communities and associated community facilities. The addition of the greenway will help to reduce inequalities for those dependent on active travel modes resulting in *direct, permanent, significant, positive* impacts upon human health.

#### **7.2.2.2 Socioeconomic Factors**

As identified above, the greenway will result in additional trips to the area particularly during the summer season with positive impacts on tourism. This will benefit the local economy and may indirectly generate additional employment or business opportunities for the community.

### **7.2.2.3 Environmental Conditions**

The proposed development will result in some additional car trips to the greenway. However, this will be minimal in terms of air quality impacts with no significant effects on human health. There is no significant noise source associated with greenway user activities, therefore *no significant* change in the existing noise environment in the vicinity of the greenway. This includes noise from vehicular movements associated with users parking at the trailheads. The associated impact on human health is considered to be *negative, slight, and long-term*.

The impact of the proposed bridges on the hydromorphology of the rivers that they span is *imperceptible*. Culvert construction is limited to minor streams and tributaries and will not significantly impact longitudinal or lateral connectivity within the wider river networks. Wear rates of the paved surface will be low hence the greenway does not represent a significant source of water pollutants. Similarly, there is limited potential for any negative significant impact on the receiving hydrogeological environment during operation of the greenway.

The removal of potential sources of historic contamination along the route (e.g. wooden railway sleepers and surrounding soils) will have a *likely, positive, slight* and *permanent* impact on the receiving groundwater environment.

The use of herbicides will be required to control invasive species during maintenance of the greenway. This will be managed in accordance with the Invasive Species Management Plan (ISMP) which has been developed and included as an appendix to the biodiversity assessment and is included in Volume 4 of the EIAR. This is anticipated to have an *imperceptible, permanent* effect upon Land and Soils. As greenway users are highly unlikely to come into direct contact with the herbicide, the potential impact to human health is considered *indirect, slight, permanent and negative*.

### **7.2.2.4 Climate Resilience**

Potential climate hazards identified during operation include extreme temperatures, flood risk, extreme wind, coastal flooding, coastal erosion and wildfire.

Through the appropriate design and mitigation measures proposed during operation of the greenway including design and maintenance of drainage and landscape planting, the potential risks to the proposed development are considered *low* and will be *not significant*.

## **7.3 Residual Impacts**

In terms of community and lifestyle and socioeconomic factors, the impacts summarised above are the anticipated residual effects upon human health.

With the implementation of appropriate mitigation measures for air quality, noise and vibration, land and soils, hydrology and hydrogeology, no negative significant residual effects are expected.

In relation to climate change vulnerability, there are no significant residual risks to the proposed development due to climate change following the implementation of mitigation measures.

In the event of hazardous weather conditions which may cause flooding, Clare County Council shall adhere to the measures contained in the latest Clare Major Emergency Plan to warn users of flood risk along section(s) of the greenway.

## 8. BIODIVERSITY

Chapter 8 of the EIAR assesses the potential biodiversity impacts of the proposed development including the assessment of habitats, species and designated sites. The assessment incorporates the results of field survey work carried out to inform the assessment.

### 8.1 Receiving Environment

A desk study was undertaken to establish the “zone of influence” of the proposed development, i.e. the geographical area over which a likely significant effect may occur. The desk study also examined any recent or historical records of features of ecological significance in the area. As part of the desk study, statutory consultees and relevant stakeholders including the National Parks & Wildlife Service, Inland Fisheries Ireland and BirdWatch Ireland were consulted. Field survey work was carried out to establish the ecological baseline. Habitats were classified and mapped in accordance with guidelines published by the Heritage Council.

Following the desk study and field surveys, features of ecological significance known as Key Ecological Receptor (KERs) were identified. A total of nine KERs were identified within the study area: Poulnasherry Bay, Wintering Birds, Breeding Waders, Birds of prey and Kingfisher, Otter, Bats, Wildlife Corridors, Badger and Invasive Species. Each KER was evaluated in terms of its conservation value on a geographical scale. Potential impacts of the proposed development on these KERs were assessed.

The proposed development is located adjacent to Poulnasherry Bay which is a tidal bay connected to the Shannon Estuary. It was established that three European sites occur within the zone of influence of the proposed development, namely the Lower River Shannon SAC, the Kilkee Reefs SAC and the River Shannon and River Fergus Estuaries SPA. Two nationally designated sites also occur within the zone of influence, namely the Poulnasherry Bay proposed Natural Heritage Area (pNHA) and the Scattery Island pNHA.

### 8.2 Potential Impacts

The Biodiversity Chapter analysed the potential impacts of the proposed development on the Key Ecological Receptors and characterised these impacts in terms of their magnitude, extent, duration, frequency and reversibility, thereby evaluating their significance on a geographical scale.

#### 8.2.1 Construction Phase

The key ecological impacts associated with the project include habitat loss, habitat fragmentation and barrier effect, habitat degradation via a reduction in water quality, the introduction of invasive species and lighting during construction, injury or mortality and noise and visual disturbance.

The construction of the footprint of the greenway, the 1m verges, the fencing and landscape planting and the trailheads at Moyasta and Kilrush will result in habitat loss and fragmentation. The effect of this will be a reduction in overall habitat area within the footprint of the proposed development. The improper management of construction materials, surface water run-off, machinery, fuels could lead to pollution or sedimentation of waterbodies, impacting the water quality which could result in degradation of aquatic habitats and further impact to species which depend on aquatic habitats. Disturbance will occur during the construction of the proposed development as a result of noise, lighting and vibration and will affect species within and outside the construction footprint. Direct mortality is possible as a result of site clearance and vegetation removal.

### **8.2.2 Operational Phase**

The key ecological impacts associated with the operational phase of the proposed development include disturbance to wintering and breeding birds, collision risk, alteration to flightlines and barriers to movement, alteration of foraging habits and predation risk, habitat degradation via a reduction in water quality, lighting and invasive species, habitat fragmentation and direct mortality. The operation of the proposed development has the potential to cause disturbance and displacement of breeding and wintering birds due to the visual presence and the noise produced by people and dogs using the greenway.

Vehicles and toilet facilities at the trailheads and the increased numbers of people and dogs in the area will present a potential source of pollutants to waterbodies, which could negatively impact aquatic habitats and species. Public lighting at the trailheads will be a source of disturbance and as detailed above, construction activities could result in the spread of invasive species which may spread further during the operation of the greenway. The greenway will cause some habitat fragmentation as it bisects areas of habitat and the fencing could act as a barrier to wildlife.

### **8.3 Mitigation Measures**

Appropriate mitigation measures are proposed aimed at eliminating or minimising potential negative effects identified in relation to KERs. Key mitigation measures include the provision of fencing and screening along the greenway to minimise disturbance to birds and other species. In particular, where the greenway runs adjacent to sensitive areas for wintering birds, screening vegetation will be maintained to a level of approximately 1.4m during the wintering birds season (October to March inclusive). Measures to minimise habitat loss and vegetation removal have also been identified.

Other key mitigation measures proposed include water quality protection measures, onsite supervision during construction, the provision of a CEMP and Method Statement, and the timing of construction to avoid disturbance of wintering and breeding birds. Pre-construction ecological surveys will be conducted, lighting will be designed to avoid and minimise disturbance, and controls to prevent the spread of invasive species will be implemented.

In addition to mitigating the effects of the proposed development on biodiversity, the biodiversity assessment also proposes enhancement measures such as planting of 16.4km of linear habitat which will compensate for the loss of 4.2km of linear scrub and hedgerow.

### **8.4 Residual Impacts**

With the implementation of the proposed mitigation measures described in the EIAR, there will be no significant residual effects on biodiversity as a result of the proposed development. The removal of invasive species will result in a permanent positive impact by eradicating this invasive species from public lands along the greenway.

## 9. LAND AND SOILS

Chapter 9 of the EIAR assesses how the proposed development will affect and interact with the various soils, geological features and landforms across the study area. The assessment considers both construction and long-term operation effects with particular attention to peatlands, watercourses, Poulmasherry Bay pNHA, Lower River Shannon SAC, and River Shannon and River Fergus Estuaries SPA.

### 9.1 Receiving Environment

The topography of the area is relatively flat with ground levels varying from approximately +3.0 to +15.0mOD along the proposed route. In the urban areas of Kilkee, Moyasta and Kilrush potentially contaminated made ground is anticipated. The majority of the proposed development follows the historical railway line; the ground conditions are anticipated to be sufficient to support the proposed development. The sections within agricultural land adjacent to the abandoned rail corridor are mainly characterised by the presence of either glacial till deposits or blanket / cut over raised peat. Minor presence of estuarine silts and clays, marine beach sands and rock outcrops and sub-crops is anticipated along the route.

There is potential to encounter contamination along the route of the former railway corridor including potential interaction with railway sleepers which can be a source of contamination if not appropriately managed. This is due to the potential presence of creosote (a wood preservative), which contains a number of toxic chemical compounds, and used historically on railway sleepers that form part of the railway track. In addition, made ground deposits within the proposed trailheads may be subject to contamination, in particular the trailhead at Kilrush. Preliminary ground investigations to date have not identified areas of known contamination.

A preliminary CEMP and RWMP has been developed for the proposed development which includes measures for the management of contaminated materials in accordance with all relevant waste management legislation, including disposal to an offsite licenced facility where required.

### 9.2 Potential Impacts

#### 9.2.1 Construction Phase

The construction of the greenway pavement has the potential to impact Land and Soils in several ways. Earthworks for the greenway pavement mainly involve the construction of surface, sub-base course and capping as described above. It will also involve both cut and fill operations to achieve desired vertical and horizontal alignment of the greenway route.

Blanket and cut over raised peat deposits are present in certain sections of the proposed development, particularly in greenfield areas where the route crosses in-situ peat. Peat depths and stability conditions will be investigated by a qualified Geotechnical Engineer prior to construction and as part of the detailed design ground investigation. The topography of the area is relatively flat; therefore, stability issues are not expected when carrying out construction works on peat deposits. The magnitude of impact on slope stability is therefore expected to be *Small Adverse*, and the significance of effect being *not significant to slight, permanent Effect*.

The use of plant and machinery during construction will require the storage and use of fuels and oils on site. Spills or leaks from plant and machinery have the potential to contaminate

soils, resulting in a *short-term Small Adverse* magnitude of impact, and *Slight to Moderate, Permanent Effect* on soil quality.

Topsoil encountered during construction, particularly in greenfield sections, will be stripped and stored in temporary stockpiles along the route for reuse where possible. The majority of the topsoil is planned to be reused on site with minimal off-site export.

The significance of the potential effects associated with the construction of the Greenway pavement is considered to range between *Not Significant to Moderate, Permanent Effect* as described above, in the absence of mitigation measures.

### **9.2.2 Operational Phase**

During the operational phase of the proposed development, the primary users of the greenway will be cyclists and pedestrians. There will also be the sporadic need for maintenance vans to carry out maintenance along the route, which will have the potential to result in minor fuel or oil leaks. Furthermore, the use of herbicides will be required to control invasive species along the Greenway route. All of these operational impacts can be considered as *Imperceptible Permanent Effects* in terms of Land and Soils.

### **9.3 Mitigation Measures**

Existing land and soil conditions will be protected where possible through the implementation of appropriate mitigation measures. In soft organic soils deposits and peatland areas, floating construction technique will be utilised where possible. Where not possible, peat will be removed and stored carefully for reuse of suitable local to the project or disposal otherwise. For habitat restoration projects it can be reused wherever possible. Soil testing will be conducted at construction stage to properly classify materials for disposal to ensure any excavated potentially contaminated materials encountered along the route are disposed of in accordance with legislation and best practice.

### **9.4 Residual Effects**

Residual effects include soil compaction and topsoil loss along the proposed route corridor, with localised disturbances to groundwater levels from excavations for retaining structures, bridge foundations and overpasses, as well as potential contamination pathways created during intrusive activities like deep excavation and piling. Once the mitigation measures are put in place, any remaining effect on the receiving environment is expected to be *Imperceptible* during both the construction and operation phases.

## 10. HYDROLOGY

The hydrological assessment assesses the potential impacts of the proposed development on the surface water environment in relation to water quality, water flows and levels and flooding. The impact of the project on the Water Framework Directive (WFD) of river, coastal and transitional waterbodies was also assessed. The assessment considers both construction and operation impacts of the proposed greenway on receiving river, coastal, and transitional waterbodies.

### 10.1 Receiving Environment

The proposed development lies in the western end of the Shannon Estuary North catchment. The proposed greenway crosses the Kilkee Lower\_010 River waterbody (RWB), Termon East\_010 RWB, Moyasta\_010 RWB, and Wood\_010 RWB, all of which have 'Good' status objectives. The impacts of the proposed development on The Mouth of the Shannon coastal waterbody (CWB), Shannon Plume CWB, and Lower Shannon Estuary transitional waterbody (TWB) have been assessed.

Assessment of the Study Area identified the presence of three designated European conservation sites: the Lower River Shannon SAC, Kilkee Reefs SAC, and River Fergus Estuaries Special Protection Area. The impacts on the Kilkee and Cappagh Pier (Kilrush) bathing water areas, the Poulnasherry Bay shellfish Protected Areas have also been assessed.

### 10.2 Potential Impacts

#### 10.2.1 Construction Phase

During the construction phase, there is the potential for contamination of waterbodies due to uncontrolled discharge from construction sites to negatively impact on the Water Quality Element (QE) of surface waterbodies. Construction site activities, such as earthworks, disturb and expose soils, leaving them more vulnerable to erosion during rainfall events. Compaction of ground can reduce infiltration to groundwater and increase runoff to nearby watercourses. Discharge generated from construction sites is highly polluting due to elevated levels of suspended sediments and contamination from sources such as concrete batching, washout areas, dust suppression systems, waste and rubbish heaps and accidental spillages. Contamination of waterbodies with uncured concrete during concrete works can negatively impact the water quality QE, as it is a highly alkaline substance and can raise the pH of the waterbody.

The repair of bridges involves removal of vegetation, grout and masonry over and adjacent to waterbodies. These activities generate dust, masonry, metal and organic debris which can enter the waterbody and create wastewater streams if not appropriately managed.

The construction phase will result in a range of temporary impacts on the water quality QE of receiving water bodies, primarily associated with site preparation, earthworks, construction of bridges and construction of the greenway paving, that are likely to cause moderate to significant effects on receiving waterbodies without mitigation. The construction phase does not represent a significant source of effect on the hydromorphological QE of receiving waterbodies.

#### 10.2.2 Operational Phase

The greenway itself has been assessed as not being a significant source pollution during the operational phase as wear rates of the paved surface will be low hence the greenway does

not represent a significant source of water pollutants during its operational phase. The proposed trailhead carpark at Moyasta represent a source of potential hydrocarbon pollution to the Mouth of the Shannon CWB and the Moyasta\_010 RWB. Effects on the Specific Pollutants QE of both the Mouth of the Shannon CWB and Moyasta\_010 RWB are likely. The proposed trailhead carpark at Kilkee represents a source of potential hydrocarbon pollution to the Mouth of the Shannon CWB. Permeable paving will be installed across the proposed parking bays and bio-retention swales are proposed to manage potential risks to adjacent waterbodies.

There will likely be an increase in dog walking activities during the operational phase. Uncollected dog faeces represent a source of microbial contamination and nutrient loading to surface waterbodies. Effects on public health due to contamination of drinking water supplies faecal pathogens during the operation of the greenway are not likely as there are no surface waterbody drinking water abstraction within the study area. Dog fouling also represents a source of negative impacts on the water quality and the sanitary status of the Shellfish Protected area in Poulnasherry Bay and the Bathing Water Protected area in Kilrush. Given the extents of the buffer zones between the greenway and the protected areas, the potential for negative impacts from dog fouling on water quality during the operational phase have been assessed as being negligible.

The proposed bridges are clear span structures. The geometry and bank substrates of the channels will not be modified. Effects on the sedimentation and flows in the channels of the rivers that they span are not likely. Culvert construction is limited to minor streams and tributaries and effects on the longitudinal or lateral connectivity within the wider river networks are not likely.

The drainage has been designed to operate effectively during the operational period. Surface water run-off will discharge to existing drainage ditches during rainfall events. Permeable paving is proposed in the parking bays at trailheads.

The Site Specific Flood Risk Assessment (SSFRA) for the project concluded that the proposed greenway will not significantly impact flood risk along its route and will not interfere with the proposed Flood Relief Schemes in Kilkee and Kilrush. As the greenway will largely follow the route of the existing railway line there will not be significant impacts on local surface drainage pathways.

### **10.3 Mitigation Measures**

A CEMP will be developed and implemented throughout the construction phase of the project to ensure mitigation measures are adhered to. Silt fencing will be installed, and ditches and drains will be fenced off or temporarily culverted to avoid movement of vehicles across watercourses. Spoil stockpiles shall be located away from waterbodies, downslope of rivers and drainage ditches. Fuelling of all vehicles and machinery will be carried out in designated areas and carefully monitored to avoid accidental spillage of oils, fuels, or other construction chemicals and wastewater. Spill kits will be available at refuelling areas and storage areas. Wheel wash facilities will be implemented at the proposed construction compounds and access points.

### **10.4 Residual Effects**

The residual effects of the proposed development on the existing hydrological environment is expected to be negligible as a result of the mitigation measures proposed. The proposed development will not affect the status of waterbodies within the study area nor hinder the objective to achieve 'good' waterbody status.

## 11. HYDROGEOLOGY

The hydrogeological assessment identifies and assesses the likely significant effects that the construction and operation phases of the proposed development will have on groundwater. The hydrogeological impact assessment methodology is as per the relevant guidance published by the National Roads Authority (NRA, 2008) titled 'Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes'. The results of the assessment provided information on the baseline conditions at the site. A detailed assessment of the potential impacts was undertaken, and appropriate avoidance and mitigation measures were identified to reduce any identified potential impact.

### 11.1 Receiving Environment

The Environmental Protection Agency (EPA, 2025) maps the groundwater body (GWB) beneath the proposed development as the Kilrush Groundwater Body (GWB). The bedrock aquifer beneath the site is classified by the Geological Survey of Ireland GSI (EPA, 2025) as a Locally Important Aquifer (LI) - bedrock, which is moderately productive only in local zones. The GSI has assigned a groundwater vulnerability rating ranging from 'Low' (L) to 'Rock at or near Surface or Karst' for the bedrock aquifer beneath the proposed development.

### 11.2 Potential Impacts

#### 11.2.1 Construction Phase

##### 11.2.1.1 *Hydrogeological Flow Regime*

Throughout the construction phase, only limited excavation will be required for the construction of the proposed trailheads and the greenway where it passes through greenfield land, along public roads, or along the former West Clare Railway alignment. The main exceptions to this are the construction of the structures proposed along the greenway. These works will likely require excavation of both topsoil and subsoil to accommodate spread footings. In addition, several minor crossings will also be constructed as part of the proposed development and some new culverts will be required. These structures are considered minor in scale and are not expected to give rise to significant effects.

There may be a requirement for localised dewatering where shallow groundwater is encountered during groundworks (e.g., for new bridge foundations). However, this will be temporary, small-scale and confined to the immediate working area, with associated effects limited to the vicinity of the excavation. There will be no unauthorised discharge of water (groundwater) to ground, drains or water courses during the construction phase ensuring only clean / uncontaminated water will be released.

Overall, it is considered that the impact on hydrogeological flow regime during the construction phase of the proposed development is *likely, neutral, slight* and *short-term* and confined to a localised area.

##### 11.2.1.2 *Water Quality*

As identified in Chapter 9 of the EIAR and summarised in Section 9.1 above in relation to land and soils, there is potential for contamination to be encountered along the route of the former rail corridor including the potential presence of creosote on railway sleepers. The wooden sleepers have the potential to leach contamination into the underlying aquifer if not properly managed. As identified above, mitigation measures have been identified and incorporated into the CEMP and associated plans. If not appropriately managed, this has the potential to mobilise contaminants and leach into the aquifer which may result in an unlikely, *negative*,

*moderate to significant* and *short-term* impact on the receiving groundwater environment at the proposed development.

There is a potential risk associated with the cementitious materials used during construction works, including the construction of pavements and other structures (i.e., bridge foundations) and the accidental release of deleterious materials (e.g., fuels or other hazardous materials being used onsite), through the failure of secondary containment or a materials handling accident at the site, that have the potential to impact on the underlying groundwater beneath the site. The excavation works will be limited and therefore, the vulnerability of the groundwater beneath the proposed development will remain unchanged. All works will be undertaken in accordance with the CEMP which includes measures for handling, storage and clean-up of deleterious materials. Overall, the use of deleterious materials at the proposed development may result in an *unlikely, negative, moderate to significant* and *short-term* impact on the receiving groundwater environment.

Flood events during construction may have the potential to mobilise contaminants during the construction phase. All works will be undertaken in accordance with the CEMP and SSFRA, with measures put in place to mitigate this risk (e.g., seasonal phasing of the works). In the absence of mitigation it is considered that this could result in an *unlikely, negative, moderate to significant* and *temporary* effect on the receiving hydrogeological environment.

Two construction compounds are proposed at the trailhead locations, with several smaller satellite compounds located along the route at access points. Foul water discharge from the temporary welfare units (canteen facilities, toilet facilities, office accommodation and tool storage areas) at the construction compound will be tankered offsite in accordance with all relevant waste management legislation or discharged under temporary consent in accordance with the necessary consent/licence. There will be no unauthorised discharge of water (groundwater or surface water runoff) to ground during the construction phase of the proposed development. Therefore, as the necessary permits or authorisation will be obtained for the discharge of any water from the site, the potential impacts will have been adequately assessed and mitigated as part of the statutory consent and there will be a *likely, neutral, imperceptible and temporary* effect on the receiving hydrogeological environment.

### 11.2.2 Operational Phase

Based on the design of the proposed development, there are limited potential sources of contamination that would impact water quality and quantity (flow regime) during the operational phase.

## 11.3 Mitigation Measures

During the construction phase, all works will be undertaken in accordance with the CEMP and the project-specific EOP. The CEMP will address construction environmental management during the construction phase of the proposed development and the EOP will also be developed, which will outline procedures for the delivery of environmental mitigation measures and for addressing general day-to-day environmental issues that can arise during the construction phase of a proposed development. Following appointment, the contractor will be required to further develop the CEMP and EOP to provide detailed construction phasing and methods to manage and prevent any potential impact on hydrogeology with regard to the relevant industry standards. The CEMP and EOP will be implemented for the duration of the construction phase, covering construction management activities that will take place during the construction phase of the proposed development.

Standard design and construction measures will be implemented to mitigate potential impacts associated with the construction of the proposed development. The measures will minimise the risk to groundwater.

#### **11.4 Residual Effects**

Overall, taking into account the avoidance, remedial, and mitigation measures outlined in the hydrogeology chapter, the residual effects associated with both the construction and operational phases of the proposed development are considered *imperceptible* in terms of their impact on the receiving hydrogeological environment. These effects are deemed non-significant within the context of the EIA Directive. Furthermore, no hydrogeological related constraints have been identified that would be expected to hinder or prevent the proposed development from proceeding as planned.

The proposed development will not cause a deterioration in the status of waterbodies hydrologically connected with the proposed development, taking account of design avoidance and mitigation measures that will be implemented. The proposed development will not jeopardise the objective to achieve 'good' groundwater body status.

## 12. AIR QUALITY

The assessment of air quality is contained within Chapter 12 of the EIAR and focuses on potential construction dust emissions and impacts to nearby sensitive receptors (e.g. residential properties, schools, hospitals, etc.) as well as potential vehicle emissions from traffic accessing the site for construction works and to a lesser extent during operation.

Construction and operation phase traffic did not meet the scoping criteria for a detailed modelling assessment outlined in Transport Infrastructure Ireland's 2025 guidance document 'Air Quality Assessment of Specified Infrastructure Projects – PE-ENV-01106'. As a result, a detailed air quality assessment of construction phase traffic emissions has been scoped out

### 12.1 Receiving Environment

Baseline data and data available from similar environments indicates that levels of nitrogen dioxide (NO<sub>2</sub>), particulate matter less than 10 microns (PM<sub>10</sub>) and particulate matter less than 2.5 microns (PM<sub>2.5</sub>) and are generally well below the current National and European Union (EU) ambient air quality standards.

### 12.2 Potential Impacts

#### 12.2.1 Construction Phase

An assessment of the potential dust impacts during construction of the proposed development was carried out which established that there is a high risk of dust related impacts if not appropriately managed, which could result in significant impacts in the absence of mitigation.

As outlined above, a detailed air quality assessment of construction phase traffic emissions has been scoped out. The construction phase traffic emissions have been assessed as having a *short-term, direct, localised, negative and not significant* impact on air quality.

#### 12.2.2 Operational Phase

Operational phase traffic has the potential to impact air quality due to vehicle exhaust emissions due to greenway users travelling to the area by car. As identified above, a detailed air quality assessment of operational phase traffic emissions has been scoped out. The proposed development will have no significant impact on air quality during operation.

### 12.3 Mitigation Measures

Best practice dust mitigation measures have been identified in the EIAR including measures related to the layout and operation of the site, sustainable operation of machinery, the use of water and other dust suppression techniques, management of stockpiles, storage of materials, stabilising exposed areas during earthworks, use of sweepers, waste management etc.

### 12.4 Residual Effects

Provided the mitigation measures for air quality are implemented, there will be no significant residual effects are predicted for the operational phase of the proposed development.

## 13. CLIMATE

The climate assessment in Chapter 13 of the EIAR incorporates an assessment of the potential greenhouse gas emissions during the construction and operational phases of the development. It also includes an assessment of the vulnerability of the project to climate change, including considerations for increased rainfall and other projected climate impacts.

### 13.1 Receiving Environment

The existing climate baseline can be determined by reference to data from the EPA on Ireland's total greenhouse gas (GHG) emissions and alignment with Ireland's 2030 sectoral emissions ceilings and carbon budgets. The EPA state that Ireland had total GHG emissions of 57.6 Mt CO<sub>2</sub>e in 2024. This is 1.03 Mt CO<sub>2</sub>e higher than Ireland's annual target for emissions in 2024. EPA projections indicate that Ireland has used 82.5% of the 295 Mt CO<sub>2</sub>e Carbon Budget for the five-year period 2021-2025. This leaves 17.5% of the budget available for 2025, requiring a substantial 10.3% annual emissions reduction for 2025.

### 13.2 Potential Impacts

#### 13.2.1 Do Nothing Scenario

In the Do-Nothing scenario, the site will remain as per the baseline and will change in accordance with trends within the wider area. The Do-Nothing scenario is considered neutral in terms of the climate assessment. Due to the nature of the proposed development, the benefits of active travel would not be applicable in the Do-Nothing scenario.

#### 13.2.2 Greenhouse Gas Assessment

The potential impact of the construction and operation of the proposed development on Ireland's national GHG emissions has been assessed against Ireland's 2024 total emissions, the relevant sectoral ceilings, and the 2030 carbon budgets. The majority of GHG emissions during the construction phase are associated with the embodied carbon of materials and fuel use for plant and machinery. When considered over the full lifecycle of the development, these emissions represent a minimal contribution to national GHG budgets. In addition, the proposed development will likely result in a modal shift by providing a facility for active travel thereby reducing vehicle-related emissions. However, the change in traffic is expected to be minimal and has not been quantified for the purpose of the climate assessment. Impacts to climate are deemed *direct, long-term, negative* and *slight*, and are *not significant*.

#### 13.2.3 Climate Change Risk Assessment

A CCRA was conducted to consider the vulnerability of the proposed development to climate change, as per the TII 2022 PE-ENV-01104 guidance. This involves an analysis of the sensitivity and exposure of the development to future climate hazards which together provide a measure of vulnerability. The hazards assessed included flooding (pluvial, fluvial, coastal); extreme heat; extreme cold; extreme wind; wildfire and coastal erosion. The proposed development is predicted to have at most, low vulnerabilities to the various climate hazards and therefore climate change risk is considered *direct, long-term, negative* and *not significant*, with regard to the construction and operational phases.

## 13.3 Mitigation Measures

### 13.3.1 Construction Phase

A number of best practice mitigation measures are proposed for the construction phase of the proposed development to ensure that impacts to climate are minimised. Best practices will be implemented to prevent significant GHG emissions which include minimising waste, recycling, cut/fill balancing, sourcing materials locally where feasible, and adherence with the *Green Public Procurement Strategy and Action Plan 2024 – 2027*.

### 13.3.2 Operational Phase

The primary contributor to emissions during the operational phase of the proposed development will be maintenance materials. Lower carbon maintenance materials will be the preferred choice throughout the lifetime of the proposed development. Routine monitoring of all infrastructure will be undertaken in line with best practice to ensure timely repairs and effective maintenance, thereby maximising the full lifecycle value of all assets. A Management and Maintenance Plan is included in Volume 4 of this EIAR which includes maintenance requirements to be implemented during operation of the greenway, including measures required to ensure drainage infrastructure is kept free of debris.

The proposed development has been designed to reduce the impact on climate change through the promotion and opportunity for active travel. To address climate change vulnerability and risk, the proposed development will incorporate measures which will help slow runoff rates. In relation to flood risk, the greenway is classified as 'less vulnerable development' which is deemed to be acceptable, and the flood risk is low. The design will also account for extreme wind events. Bridge structures will be engineered to meet standards for high wind speeds. The landscaping will feature native plants suitable to the climate on the west coast of Ireland.

## 13.4 Residual Impacts

The impact to climate due to a proposed development must be assessed as a whole for all phases. Although the nature of the proposed development will lead to avoided GHG emissions through the modal shift to active travel, the proposed development will result in a net negative impact on climate through the release of GHG emissions and will therefore result in a minor adverse impact on climate. The ISEP GHG guidance states as follows:

*“A minor adverse not significant impact is described with: A project that is compatible with the budgeted, science based 1.5°C trajectory (in terms of rate of emissions reduction) and which complies with up-to-date policy and ‘good practice’ reduction measures to achieve that has a minor adverse effect that is not significant. The project may have residual impacts but is doing enough to align with and contribute to the relevant transition scenario. A ‘minor adverse’ or ‘negligible’ non-significant effect conclusion does not necessarily refer to the magnitude of GHG emissions being carbon neutral (i.e. zero on balance) but refers to the likelihood of avoiding severe climate change and achieving net zero by 2050. A ‘minor adverse’ effect or better is a high bar and indicates exemplary performance where a project meets or exceeds measures to achieve net zero earlier than 2050.”*

TII PE-ENV-01104 guidance references the IESP guidance which states that the crux of assessing significance is *“not whether a project emits GHG emissions, nor even the magnitude of GHG emissions alone, but whether it contributes to reducing GHG emissions relative to a comparable baseline consistent with a trajectory towards net zero by 2050”*. The proposed development has incorporated some best practice mitigation measures and is committing to reducing climate impacts where feasible. Once mitigation measures are put in place, the effect

of the proposed development in relation to GHG emissions is considered *direct, long-term, negative* and *slight*, which is overall *not significant* in EIA terms.

In relation to climate change vulnerability, it has been assessed that given the level of mitigation integrated into the design there are no significant risks to the proposed development because of climate change. The residual effect of climate change on the proposed development is *direct, long-term, negative* and *not significant*.

## 14. NOISE AND VIBRATION

An assessment of the potential noise and vibration impacts associated with the construction and operation of the proposed development is included in Chapter 14 of the EIAR.

### 14.1 Receiving Environment

The existing noise environment along the proposed development is generally characterised by low ambient noise levels typical of rural and coastal areas, influenced by local road traffic, agricultural activity and natural sources. Higher background noise levels occur locally at the eastern and western extents of the scheme, including Kilkee and Kilrush, where road traffic and human activity are more prevalent.

The noise and vibration assessment has considered the potential impacts arising during both the construction and operational phases of the proposed development on nearby noise sensitive locations.

### 14.2 Potential Impacts

#### 14.2.1 Construction Phase

Construction activities associated with the proposed development will include earthworks, resurfacing works, limited removal of remaining railway infrastructure, construction of bridges, culverts, agricultural underpasses and overpasses, retaining walls, and works at the proposed trailheads at Kilrush and Moyasta. A range of typical construction plant will be used, including excavators, dump trucks, pavers, rollers and piling equipment.

Predicted construction noise levels at noise sensitive locations within approximately 35m to 70m depending on the type of activity may exceed the relevant construction noise criteria, resulting in potential significant impacts in the absence of mitigation. However, construction works are assumed to progress in a linear manner along the route, thereby limiting the duration of construction activity in proximity to any individual noise sensitive location.

It is noted that there are few noise sensitive properties located within close proximity to proposed construction works. The majority of noise sensitive receptors are located at greater distances from the works, where construction noise levels reduce with distance and impacts are predicted to be short-term, negative and moderate in nature. Those receptors located closest to the proposed works are primarily concentrated at the eastern and western extents of the scheme, in the vicinity of Kilkee and Kilrush, with limited potential for significant construction noise impacts along the remainder of the route.

Rail removal and track preparation works will not occur along the full extent of the proposed greenway. The majority of the former West Clare Railway infrastructure has already been removed, with remaining rail and sleeper removal limited to short, isolated sections of the route. These works are generally located in rural areas, set back from residential receptors, and will be temporary and localised in nature.

Bridge and underpass structures are proposed in the vicinity of Lisdeen, Carrowncalla and Moyasta. The nearest noise sensitive locations are located at a distance of approximately 35m from these works, where construction noise impacts are predicted to be *significant* for the short time of the activity. The majority of nearby noise sensitive locations are located at distances of approximately 70m or greater from the bridge and underpass works, where impacts are predicted to be lesser in magnitude.

Construction vibration will primarily arise from excavation activities, vehicle movements and piling works associated with bridge and underpass construction. Excavation and general construction activities are not expected to generate perceptible vibration levels at nearby noise sensitive locations. Piling works will be undertaken using augured piling methods, which generate relatively low levels of vibration. Predicted vibration levels at nearby buildings are well below thresholds associated with cosmetic or structural damage and are also below levels likely to cause disturbance to occupants. Overall, construction vibration impacts are predicted to be *negligible*.

#### **14.2.2 Operational Phase**

Once operational, the greenway will be a low-noise development, with primary activities comprising walking and cycling along the route. These activities are not expected to generate significant noise and are not predicted to result in any appreciable change to the existing noise environment. Additional noise will arise from limited and intermittent vehicle movements at the proposed trailheads and from occasional routine maintenance activities. Noise impacts associated with the operational phase are predicted not to be *significant* in terms of noise or vibration.

### **14.3 Residual Effects**

During the construction phase of the proposed development there is the potential for significant impacts on nearby noise sensitive properties due to noise emissions from construction activities. The application of binding noise limits, hours of operation, along with implementation of appropriate noise and vibration control measures, will ensure that noise impacts are minimised and will have a *negative, not significant to significant, and temporary* impact on the surrounding environment.

Taking into account the low levels of vibration generated at close distances to piling rigs and excavations the vibration impacts are *neutral, imperceptible, and temporary*.

Once operational, potential impacts associated with the greenway are expected to be low in noise. This includes residual impacts from people walking and cycling which is considered to be *negative, imperceptible, and long-term*. Residual impacts will also occur from vehicular activity near car parking areas and occasional maintenance works along the route the residual impacts of which are considered to be *negative, slight, and long-term*.

## 15. LANDSCAPE AND VISUAL AMENITY

A Landscape and Visual Impact Assessment (LVIA) has been completed to identify and determine the effects on landscape character, landscape features, visual receptors and visual amenity as a result of works during the construction and operational phases of the proposed development.

### 15.1 Receiving Environment

The existing environment of the study area primarily comprises large extents of rural landscape character and context, with a small portion of the study area comprising towns (e.g. Kilrush, Kilkee) and a small village (Moyasta). The topography across the site is of a relatively low elevation with much of its lands falling between 1-10m Above Ordnance Datum (AOD), reflecting its proximity to Poulnasherry Bay.

With regards to the landcover (that is, vegetation and built form) of the study area, it is mainly agricultural pastureland, with much of the study area made up of small-scale agricultural fields of improved grassland and more marginal grassland. Field boundaries are often contained by hedgerows, while also being more open in other locations, with timber post and wire fencing. At Kilkee, the area of town nearer to the proposed route include a mix of modern housing and holiday accommodation. At Kilrush, the proposed trailhead is located alongside Kilrush Marina and within the Kilrush Architectural Conservation Area.

With regards to Built & Cultural Heritage, several parts of the study area contain interesting structures that relate to the former railway infrastructure, as well as built form in the towns of Kilrush and Kilkee and the village of Moyasta. Some of these structures are protected as Record of Protected Structures (RPS), within the current Clare County Development Plan, reflecting their historical importance.

With regards to Transport Routes within the LVIA study area, the N67 national road is the main transport corridor that connects the towns of Kilkee and Kilrush. Leading off of this main thoroughfare are various local roads and boreens and long private lanes along which are a relatively high concentration of rural dwellings.

With regards to Views & Visual Amenity, there is one protected scenic route within the study area, which encompasses a very short section of the Shanakyle Road on the western end of Kilrush, marginally north of Kilrush Marina. Visibility across the wider area is generally localised and contained by the low undulating hills combined with mid-height roadside hedgerows. On balance, the most pleasant views along the site of the proposed development are those looking southwards towards Poulnasherry Bay. These views tend to face away from nearby rural residences and consist of the more naturalised, less managed coastal landscape.

### 15.2 Potential Impacts

#### 15.2.1 Landscape Effects

With regards to predicted construction-phase landscape effects, these were deemed to range from Slight to Significant-Moderate, depending on the nature and scale of the proposed works, in tandem with the landscape setting and sensitivity of those work areas. In terms of Quality of Effect, these were mostly Adverse in nature and, in all cases, short-term in duration.

However, a total of 16.4km of native vegetation will be also planted along the corridor of the proposed route during the construction-phase, including new habitats and supplementary

planting. As an estimated total of 4.2km of habitat will be cleared to facilitate construction, on balance, this represent a net gain of 12.2km of native vegetation/ habitat.

With regards to predicted operational-phase landscape effects, it worth noting that the proposed development will be, in essence, a contemporary linear transport route connecting Kilkee with Kilrush that replicates and overlaps a historical linear transport route also connecting Kilkee with Kilrush. In that regard, 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 19<sup>th</sup> Century, but which has laid dormant and/or neglected/overgrown for decades. Thus, the inherent landscape character of the study area is informed by this highly modified, manmade channel dissecting the south Clare countryside.

Thus, on balance, the proposed development is predicted to result in a Moderate-slight effect for operational-phase landscape effects. Considering the viability and benefits the proposed development is likely to bring to the landscape of this area over at least the next century, these are predicted to have a Positive Quality of Effect and will be Permanent in duration.

### **15.2.2 Visual Effects**

With regards to predicted construction-phase visual effects, where the proposed construction works are located in the urban/suburban townscape fabric, as well as that of Moyasta village, they are predicted to result in a Moderate effect for construction-phase visual impacts for these areas. Where these works are located in the rural landscape fabric, they are predicted to result in a Significant-Moderate effect for construction-phase visual impacts for these areas. In all instance, these will have an Adverse Quality of Effect and will be short-term in duration.

With regards to operational-phase visual effects, based on the desk study, review of the proposed development, site characteristics and sensitivity, as well as visibility of the site from nearby receptors established during the site visit, a number of representative viewpoints were selected to assist in the appraisal of visual effects, supported by the preparation of photomontages for these viewpoints. Each viewpoint was assessed for its Visual Receptor Sensitivity and Magnitude of Visual Change, as well as Significance and Quality and visual effect (in each case, the duration of operational effects will be permanent).

In summary, of the 12 No. viewpoints assessed, just one viewpoint was predicted to have a Significant visual effect. Rather than being a view of the proposed greenway, this is as a result of predicted open views from this viewpoint of the proposed Kilrush trailhead, from residences in the immediate vicinity of the trailhead, albeit on the western fringes of a sizeable town. However, all other viewpoints were predicted to have a visual effect not higher than Moderate.

In terms of the predicted quality of effect, none of the viewpoints were predicted to have a negative quality of effect, with five viewpoints predicted have a Beneficial/Positive quality of effect, and the remaining viewpoints predicted to have a Neutral quality of effect.

### **15.3 Mitigation Measures**

A Landscape Strategy for the proposed development is outlined in Chapter 15 of the EIAR. This includes details of proposed fencing and boundary treatments including retention of existing fencing and hedgerows where possible and new and supplementary planting proposed along both sides of the greenway. Trees and soft landscaping are proposed at the trailheads to mitigate potential visual effects from the introduction of car parking and hard surfaces. The Landscape Strategy has been informed by the Biodiversity assessment including screening requirements to mitigate impacts to wintering birds at identified bird sensitive locations along Poulmasherry Bay.

## **15.4 Residual Effects**

The residual landscape and visual effects are the same as those effects identified above for the construction and operation phase of the proposed development.

## 16. CULTURAL HERITAGE

The archaeology and cultural heritage assessment identifies and assesses the likely significant effects that the construction and operation phases of the proposed development will have on archaeology and cultural heritage. In order to identify potential significant effects from a cultural heritage perspective, a study area measuring 250m either side of the proposed development boundary was established.

Professional judgement was used to determine where the area should be extended to consider archaeological sites / monuments or historic structures that lie beyond its boundaries. As required and where appropriate, the relationship of structures, sites, monuments, and complexes that fall outside this study area will be considered and evaluated. The wider landscape was also considered, to provide an archaeological and historical context for the proposed development.

### 16.1 Receiving Environment

The route of the proposed development comprises parts of the former West Clare Railway from Kilkee to Kilrush in County Clare. The surrounding landscape comprises undeveloped agricultural land between the towns. Eight townland boundaries (TB) are located within the proposed development area. The southwest of Ireland has shown evidence of possible human activity as early as the Upper Palaeolithic.

A total of 18 Recorded Monuments (Archaeological Heritage (AH) sites) are located within the study area. These are listed in Table 16.5 in Chapter 16 Cultural Heritage of the EIAR and are illustrated on Figure 16.1, Volume 3 of the EIAR. None of the AH Sites are National Monuments in State Care, or subject to Preservation Orders. Scattery Island is visible from the route of the proposed development but is located c. 1.6km south of the proposed development.

A review of the Clare County Development Plan and NIAH has shown that 10 recorded built heritage (BH) receptors within the study area, all of which are subject to statutory protection. Each BH site is marked on Figure 16.1, Volume 3 of the EIAR.

A review of the Clare County Development Plan has shown that the proposed development is partially within the Kilrush Architectural Conservation Area (ACA) at its eastern extent. The extent of the Kilrush ACA is depicted on Figure 16.1, Volume 3 of the EIAR.

A number of aerial anomalies were identified during the review of the aerial photographic analysis which may be of archaeological or cultural heritage significance. The available LIDAR data for the study area covers the western and eastern extents of the of the proposed development and this was examined and no additional anomalies were identified.

A number of stray artefact finds have been recovered from townlands within the study area; however, no precise find locations are recorded, so it is unclear if they were recovered from the study area of the proposed development.

A number of previously unrecorded sites of Cultural Heritage merit have been identified during the course of this appraisal through historic mapping, aerial photography and field inspection. A total of 37 CH sites have been identified through these methods within the study area. These are illustrated on Figure 16.1, Volume 3 of the EIAR.

A large number of the unrecorded cultural heritage receptors identified during the assessment are associated with the former West Clare Railway, which has been designated CH1.

A number of areas of archaeological potential have been identified during this assessment, which include previously undisturbed greenfield areas, some of which are in close proximity to watercourses or the estuary. These areas have a higher potential for surviving archaeological features or deposits below ground level without surface expression. These areas are shown on Figure 16.1 in Volume 3 of the EIAR.

Eight townland boundaries (TB) are located within the proposed development area. The townland is an Irish land unit of considerable longevity as many of the units are likely to correspond to much earlier land divisions

## 16.2 Potential Impacts

### 16.2.1 Construction Phase

The construction of the proposed development will not result in any direct impacts on archaeological heritage sites located within the study area. A small number of monuments are located immediately adjacent to the proposed development, some of which have already been subject to ground disturbances due to the previous construction of the railway.

AH2 and AH3, two ringforts in Lisdeen, are located c. 5m to the north of the proposed development and whilst the monuments will not be directly impacted, it is possible that ground works associated with the construction of the project will result in *direct, negative (permanent) impacts* on any buried archaeological remains that may be associated with the monuments. The sensitivity of any remains would be high and the magnitude of impact would be high, leading to a significance of effect on AH2 and AH3 during construction being *significant*.

The construction of the proposed development will not result in any direct impacts on built heritage sites located within the study area, as none of the structures are located within the footprint of the proposed development.

The proposed construction compound in Kilrush, at the location of the proposed trailhead, is located within Kilrush ACA, adjacent to the former Kilrush railway station (BH20). The construction of the proposed development will result in a *direct, negative (temporary) impact* on the ACA, resulting in a *moderate significance* of effect. No construction impacts are predicted upon BH20.

Kikee ACA will not be impacted, as it is located outside the study area of the proposed development, c. 312m to the west-northwest of the western extent of the proposed development.

The construction of the proposed development will result in a number of impacts on cultural heritage sites that have been identified during the course of this assessment. This includes potential impacts of *moderate* significance to the West Clare Railway (CH1) during ground works. Impacts to other cultural heritage sites associated with the West Clare Railway range from imperceptible to not significant, with the exception being the Kilrush Station Complex (CH1.21) where ground works may result in a *significant* effect on railway infrastructure during construction.

Ground disturbances associated with the construction of the proposed development have the potential to *directly and negatively impact* previously unrecorded archaeological remains that may survive within AAPs 1–12, resulting in a significance of effect that may vary from *moderate to very significant*.

Ground disturbances associated with the proposed development will result in the removal of a short section of townland boundary (TB3 Garraun/ Baunmore), resulting in an imperceptible significance of effect.

Ground disturbances associated with the construction of the proposed development have the potential to directly and negatively impact previously unrecorded archaeological remains that may survive beneath the current ground level within portions of the project that have not been designated within this assessment. This will result in a significance of effect that may vary from *moderate* to *very significant*.

### 16.2.2 Operational Phase

No operational impacts are predicted upon the archaeological heritage sites in the study area. The operation of the trailhead at Moyasta to the west of the former station building (BH13) has the potential to result in an *indirect negative (permanent) impact* on the station building, which will result in a *slight* significance of effect.

The eastern proposed trailhead is located within Kilrush ACA, adjacent to the former station (BH20). The operation of the proposed development will result in a *direct, negative (permanent)* impact on the ACA, resulting in a *moderate significance* of effect.

The operation of the proposed development will result in a *direct, positive (permanent) impact* on the former West Clare Railway (CH1) due to the fact that the currently disused route will be open to the public as an active travel way and this will increase the accessibility of the industrial heritage of the landscape to the public, resulting in a *significant* significance of effect.

A number of other associated railway features will also be subject to *direct positive (permanent) impacts*, including the following:

- CH1.1 Keepers Cottage and Level Crossing (Dough),
- CH1.3 Keepers Cottage and Level Crossing (Lisdeen),
- CH1.8 Keepers Cottage and Level Crossing (Garraun),
- CH1.9 Keepers Cottage and Level Crossing,
- CH1.10 (Moyasta Railway Bridge),
- CH1.11 Group of railway infrastructure centred on the former West Clare Railway Museum (Moyasta),
- Ch1,12 Group of railway infrastructure features,
- CH1.23 Culvert running under CH1 (Moyasta),
- CH1.18 Level Crossing (Carrowncalla South),
- CH1,19 Site of mile post (Carrowncalla South), and
- CH1.20 Keepers Cottage and Level Crossing (Leadmore West).

This is due to the increased accessibility of the industrial heritage to the public, resulting in a *slight to significant* significance of effect.

No operational impacts are predicted upon the designated AAPs or townland boundaries.

## 16.3 Mitigation Measures

A programme of archaeological test trenching will be carried out prior to the commencement of construction in relation to potentially impacted archaeological and cultural heritage sites, areas of archaeological potential and greenfield areas. This will be carried out in consultation

with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH. Subject to the results of test trenching, further mitigation may be required, such as preservation by record or in-situ. Any further agreement will require agreement from the National Monuments Service of the DoHLGH.

A written and photographic record will be made of the following sites, prior to the commencement of construction and following the removal of any vegetation that may be present: CH1.3, CH1.4, CH1.6, CH1.10, CH1.15 and CH1.18, as well as the section of the Kilrush ACA to be developed as part of the trailhead. The records will be compiled by a suitably qualified heritage specialist, in consultation with the TII Project Archaeologist.

Prior to the removal of the section of TB3, the section of townland boundary to be affected will be subject to a townland boundary survey. Subject to access, this may include the excavation of a test trench in order to record the construction of the boundary. The works will be carried out in consultation with the TII Project Archaeologist and under licence from the National Monuments Service of the DoHLGH.

A written and photographic record will be made of BH13, prior to the commencement of construction. The record will be compiled by a suitably qualified heritage specialist, in consultation with the TII Project Archaeologist.

#### **16.4 Residual Effects**

Following the implementation of mitigation measures as summarised above, there will be *no significant negative* residual impacts on the archaeological, architectural or the cultural heritage resource at construction and operation phase.

There will be a significant positive residual impact on the West Clare Railway and associated industrial heritage sites during operation of the proposed development.

## **17. MATERIAL ASSETS AND LAND (AGRICULTURE)**

An assessment of the impact of the proposed project on agricultural property is presented in EIAR Chapter 17 Material Assets and Lands (Agricultural properties). This assessment describes and assesses the likely direct and indirect significant impacts of the proposed project on agricultural property. The study area for this assessment comprises of the agricultural property directly impacted by the proposed project. The zone of influence extends to the agricultural lands, to include owned or rented lands, being farmed as part of directly affected agricultural properties. The key parameters for assessment that have potential to result in likely significant effects on agricultural properties include land-take, farm division, farm enterprise. effects on farm buildings / farm facilities.

### **17.1 Receiving Environment**

The study area encompasses agricultural properties and lands from Kilkee Town to Kilrush via the village of Moyasta. The baseline study area includes 40 No. agricultural properties directly impacted by the proposed project extending from Dough Townland at Kilkee to Kilrush Townland. The agricultural farms holdings affected by the proposed development range in area from less than 1ha to greater than 120ha with an average area of 27.0ha.

### **17.2 Potential Impacts**

#### **17.2.1 Construction Phase**

The activity of earth moving machinery, transport lorries and other ancillary vehicles will generate additional noise emissions in the immediate vicinity of the construction area. Noise can be of significance for farm animals as intermittent noise can cause fright and distress. Dust generated from the exposure of soil to the atmosphere during construction may cause annoyance or nuisance to the farmer and farm animals. This stress may reduce productivity and increase management difficulties.

Field drainage systems currently in situ will be interrupted by the construction works. These systems will be restored on completion of the proposed works. However, there may be temporary impaired drainage in the period of time between initial disturbance and final reinstatement of such drainage works. Access to either piped water or drinking points on watercourses may be affected during construction through the interruption of existing water supply piping on the farm or the diversion of watercourses used by livestock on the farm. Electric fencing used on farms to stock proof farm boundaries or control the movement of stock may also be affected.

The construction works for the proposed development will involve a total temporary land-take of 6.37ha agricultural lands. Temporary land-take is comprised of 6.28ha agricultural lands and 0.09ha public roads.

#### **17.2.2 Operational Phase**

On agricultural properties, the proposed development will involve a total permanent land-take of 16.27ha from 40 holdings. Permanent land-take is comprised of 15.40ha agricultural lands and 0.87ha public road.

Land-take associated with the proposed development is predominantly on agricultural lands. For a significant section of the project the land-take on agricultural properties is comprised of the former West Clare Railway route alignment between Kilkee and Kilrush towns. On the remaining agricultural properties, land-take is generally comprised of a narrow corridor along

field and farm boundaries. The proposed development will not directly impact on farm buildings, animal handling pens or yard facilities.

### 17.2.3 Summary of land take impacts

There are nine agricultural properties (22.5%) on the proposed project where the level of effect is considered *significant*. On seven of these agricultural properties, the significant effect is the impact of farm division and to a degree the land-take on the farm holdings. On two of these agricultural properties, the significant effect is the loss of access to the retained lands.

There are 13 agricultural properties (32.5%) on the proposed project where the level of effect is considered *moderate*. These are primarily due to the combined impact of land-take and farm division on farm holdings.

There are 11 agricultural properties (27.5%) where the level of effect is considered *slight*. These are mainly agricultural properties where the proposed greenway will run along existing field or farm boundaries or along a section of the abandoned rail line.

There are seven agricultural properties (17.5%) where the level of effect is considered *not significant*. On these agricultural properties, there is a relatively low level of land-take involved along the existing field or farm boundaries.

## 17.3 Mitigation Measures

### 17.3.1 Construction Phase

Farm enterprises will be notified of expected construction noise and dust generation, so that livestock can be moved away from the construction work during critical times.

Where farm division has occurred, temporary access across the proposed construction works corridor will need to be maintained on farms until such time as permanent alternative access is provided. Access will be restored, as soon as possible, to lands where it is removed or restricted by the proposed project. The location of such access will be at a suitable location and, where possible, with the agreement of the landowner. Temporary fencing will be erected as required to delineate the site boundary and to minimise disturbance to adjacent lands.

In cases where drainage is impeded during construction and causes obvious difficulty to a particular landowner, temporary measures will be considered on a site-specific basis. This may include allowing waters to drain to less critical areas, so as to minimise the impact.

Where required, an alternative source of water / electricity will be provided to ensure that disruption to farming is minimised during the construction phase.

Following the completion of relevant construction works, lands temporarily acquired will be reinstated to existing agricultural condition. Measures will be considered on a site-by-site basis, subject to proposed construction works. Where construction compounds will involve installing a hard-core surface it will be necessary for topsoil to be removed and stored. Where new access is proposed affecting existing property boundaries these will be reinstated on a like for like basis. This may require storage of stone wall material during construction or replanting of hedgerow / trees, as required.

### 17.3.2 Operational Phase

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) or similar.

For landowners with land on either side of the greenway, access crossing points will be provided as required for crossing movements of livestock and machinery. Gates will be hung on opposite piers either side of the greenway, and when opened, will temporarily close off the greenway to allow the landowner to cross. The location of such field access gates will be at a suitable location and, where possible, with the agreement of the landowner.

On a small number of agricultural properties, access will be provided via an access accommodation structure to divided lands.

New drainage systems will be designed to ensure that there will be no increased risk of flooding as a consequence of the proposed project. Any services that are interfered with as a result of the proposed project will be repaired / replaced without unreasonable delay. Ducting for the restoration of water and power supply services will be provided, as necessary. Screening will be provided, where required, to mitigate the noise and visual effects of construction works and operational traffic.

#### **17.4 Residual Effects**

After mitigation, there are no agricultural properties on which the residual impact is likely to be *profound, very significant or significant*. This represents a reduction of nine agricultural properties with a *significant* impact prior to mitigation.

There are 19 agricultural properties (47.5%) on the proposed project where the level of impact is *moderate*. There are ten agricultural properties (25.0%) on which the residual impact is likely to be *slight* and eleven agricultural properties (27.5%) on which the residual impact is likely to be *not significant*. There are no agricultural properties with an impact deemed to be *imperceptible*.

## **18. MATERIAL ASSETS AND LAND (NON-AGRICULTURE)**

Chapter 18 of the EIAR assesses the impact of the proposed development on non-agricultural property during the construction and operation phase. This chapter describes and assesses the likely direct and indirect impacts of the proposed development on non-agricultural property.

The Study Area for the assessment comprises of the non-agricultural property directly impacted by the proposed project. Non-agricultural property includes the following:

- Residential property.
- Commercial property.
- Community property – Public parks, open space or lands that are used for recreation amenity.
- Development land – Lands that may be zoned / unzoned for development (with or without planning permission) and sites with planning permission.
- Other land –non-amenity lands, waterbodies, public road, etc.

### **18.1 Receiving Environment**

Overall, the baseline environment is comprised of 19 non-agricultural properties directly impacted by the proposed development. There are five residential properties, two community properties, five commercial properties, two properties zoned for development lands, and five other non-agricultural properties.

In relation to community properties, it is noted that one of these identified properties is not currently in use as a community facility but zoned as open space in the Development Plan, and works at the other identified community property are limited to acquisition of the existing roadbed.

In relation to lands zoned for development, this includes land zoned for Tourism on approach to Moyasta Bridge associated with the former West Clare Railway and indicative route of the West Clare Railway Greenway as per the Development Plan. In addition, the Kilrush trailhead is located on land owned by Clare County Council and is zoned for Mixed Use development, with the indicative route of the West Clare Railway Greenway also shown at this location on the Development Plan maps.

Other lands which are not developed or zoned for development, including areas of former railway corridor, existing road bed or vacant lands.

### **18.2 Potential Impacts**

The construction works for the proposed development will involve a total temporary land acquisition of 0.42ha of non-agricultural property. These non-agricultural lands comprise residential lands (curtilage) commercial lands, and other lands including public and private road.

Access to some properties will be affected during the construction phase. The construction of local road junctions and crossings in particular may impact on access to properties.

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.

Dust generated during the construction phase may have a nuisance effect on nearby properties especially during dry weather.

Existing drainage systems may be disturbed and in places removed by the construction of the proposed development. 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 construction of the proposed development may impact on services including supply of water, electricity and phone services and facilities for, or connections to wastewater treatment facilities.

### **18.2.1 Operational Phase**

The proposed development will involve a permanent land acquisition on non-agricultural properties of 3.60ha, which comprises 3.44ha of non-agricultural lands, 0.13ha public road and 0.03ha of private road.

There are no non-agricultural properties along the proposed development where the level of effect is considered significant or above, while six properties (32%) along the proposed development are considered to have a moderate level of effect. The six properties (32%) identified with a moderate impact are generally residential properties where the curtilage is impacted.

The eight properties (42%) identified with a slight impact are majority Commercial properties or development lands, most of which are currently vacant. There are four properties (21%) where the effect is assessed as not significant.

The single property (5%) identified with an imperceptible impact is roadbed being acquired for shared use of the greenway.

## **18.3 Mitigation Measures**

Lands temporarily acquired for construction will be reinstated as soon as is practicable. Access will be maintained to all affected property as much as possible and if interrupted will be restored without unreasonable delay. Where land is severed with no means of alternative access, the proposed access gates shall be installed in the first instance to facilitate continual access to all lands.

Where part of the curtilage of a property is to be permanently acquired, the acquiring authority will hold discussions with the property owner and generally agree to replace boundaries on a like-for-like basis where possible, subject to safety considerations, as part of the statutory process.

Any disturbance to utilities will be managed appropriately in consultation with impacted landowners.

## **18.4 Residual Effects**

After mitigation, there are no non-agricultural properties on which the residual impact is likely to be *moderate* or greater. There are six non-agricultural properties (32%) on which the residual impact is likely to be *Slight*. There are eight non-agricultural properties (42%) on which the residual impact is likely to be *Not Significant*. There are five non-agricultural properties (26%) where the level of effect is considered *imperceptible*.

## 19. MAJOR ACCIDENTS AND DISASTERS

### 19.1 Introduction

EIAR Chapter 19 Major Accidents assesses the proposed development in terms of its potential to cause major accidents and disasters, and its vulnerability to the negative impacts of potential major accidents and disasters during its construction and operation.

This Chapter differs from the other specialist Chapters of this EIAR in that it does not deal with likely effects. Rather, its scope is limited to sudden events of low likelihood, which may conceivably occur, and which would result in major negative impacts on infrastructure, human health, cultural heritage and / or the environment (or events of “low likelihood but potentially high consequence”. Minor accident risks of relatively low consequence, e.g., crime/civil unrest, cyber-attacks, and terrorism have been scoped out of the assessment. The assessment does not deal with the impacts of gradual trends associated with climate change, e.g. sea level rise or increasing annual rainfall volumes. Rather it addresses sudden events whose frequency may be increased as a result of climate change related trends, e.g. extreme weather events.

### 19.2 Methodology

In accordance with the Institute of Environmental Management and Assessment (IEMA) guidelines (IEMA, 2020), this assessment follows a three-stage methodology; Stage 1 Screening; Stage 2 Scoping; Stage 3 Assessment.

Information was obtained from the desktop studies and surveys completed for the environmental factors contained within the other chapters of this EIAR (e.g., Hydrology, Air Quality, etc.) and they have informed this assessment as appropriate. Consultation, and the consideration of feedback from the public and statutory consultees is a key part of the EIA process and integral to informing the design development and this environmental assessment.

### 19.3 Potential Impacts

From examining all potential risk events associated with the proposed development, scenarios that were considered to be of the highest risk in terms of project vulnerability and its potential to cause such an event include the following:

During construction:

- Extreme weather events (Flooding)
- Spillage or long-term seepage of pollutants into a watercourse

During operation:

- Mass wasting

The assessment considered mitigation by design (where appropriate) and whether these were sufficient to mitigate the associated risk level(s) to be As Low As Reasonably Practicable (ALARP). Secondary mitigation measures have been identified for the above listed risk events, which will be implemented to mitigate the associated risk level(s) to be ALARP.

## **19.4 Residual Effects**

Following the implementation of mitigation measures, no significant residual effects are likely.

## 20. INTERACTIONS AND CUMULATIVE EFFECTS

### 20.1 Interactions

In addition to the assessment of impacts on individual environmental topics, the potential interactions between these factors have also been considered as assessed in Chapter 20 of the EIAR.

Table 20-1 shows the principal interactions / interrelationships identified for the proposed development. The nature and magnitude of all identified interactions / interrelationships was assessed, and it was concluded that, provided the proposed mitigation measures are fully implemented, no significant adverse effects will arise as a result of interactions / interrelationships between the various environmental topics considered, either during construction or operation.

**Table 20-1 Interactions between the environmental factors**

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			✓	✓	✓	✓	✓	✓			✓	✓	✓	
Hydrology			✓	✓	✓	✓	✓						✓	✓
Hydrogeology			✓		✓	✓	✓							
Air Quality		✓	✓	✓				✓			✓		✓	✓
Climate			✓	✓		✓			✓		✓			
Noise and Vibration		✓	✓	✓						✓			✓	✓
Landscape and Visual Amenity		✓	✓	✓							✓			
Cultural Heritage		✓									✓	✓		
Material Assets (Agriculture)			✓										✓	
Material Assets (Non-Agriculture)		✓	✓											✓

### 20.2 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.

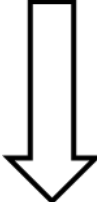
The Department of Housing, Planning and Local Government’s 2018 EIA guidance states: *“Effects are not to be considered in isolation but cumulatively i.e., when they are added to other effects. A single effect on its own may not be significant in terms of impact on the environment but, when considered 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”.*

The assessment of cumulative effects 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.

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 20-2.

**Table 20-2 Tiered Approach to Identifying and Assessing Potential Cumulative Effects.**

Tier	Description	Level of detail
<b>Tier 1</b>	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  
<b>Tier 2</b>	Existing or approved projects (Staged approach). Plans or programmes to include relevant land use, planning and transport plans/strategies relevant to the project.	
<b>Tier 3</b>	'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.	

**Tier 1 Cumulative Assessment**

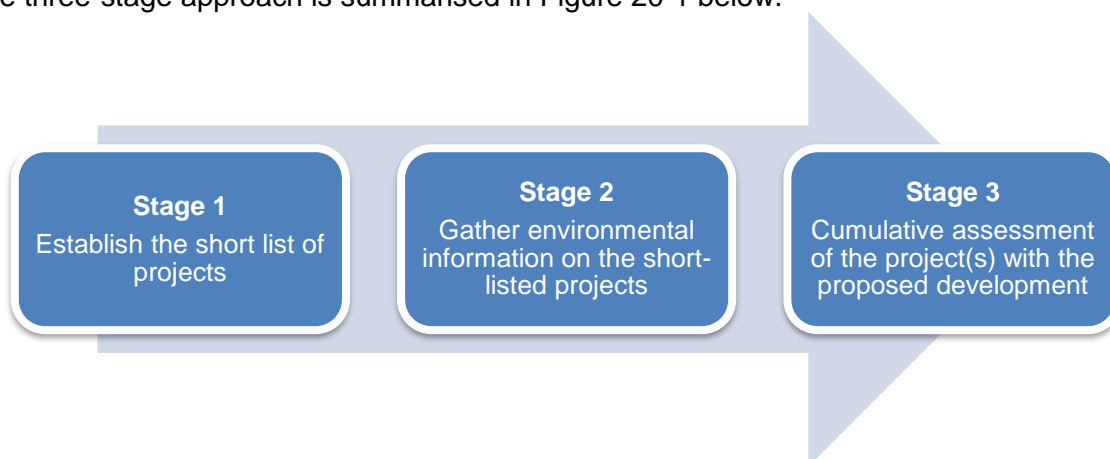
The methodology for the ‘Tier 1’ development(s) relates to development that is functionally or legally interdependent on further development(s) not included in the application for consent approval. The proposed development is not functionally or legally interdependent on an additional development.

**Tier 2 Cumulative Assessment**

The Tier 2 includes the assessment of existing and/ or approved plans or projects. 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 was collated. The assessment of plans is detailed in Chapter 20 Interactions and Cumulative Effects in Volume 2 of this EIAR.

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. A staged approach is adopted for projects and 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'.

The three-stage approach is summarised in Figure 20-1 below.



**Figure 20-1 Staged approach for Tier 2 cumulative assessment.**

A full description of each of the three stages and short-listed projects is presented in Chapter 20 Interactions and Cumulative Effects in Volume 2 of this EIAR, including an assessment of potential cumulative effects with the proposed development.

### **Tier 3 Cumulative Assessment**

Tier 3 'Other' projects are those that are in the public domain/at preliminary design, i.e. not submitted for planning, but have the potential for cumulative effects with the proposed development.

The cumulative assessments undertaken under each of the tiers is presented in Chapter 20 Interactions and Cumulative Effects in Volume 2 of this EIAR. No significant cumulative impacts were identified.

## **21. SUMMARY OF MITIGATION AND MONITORING MEASURES**

Chapter 21 Summary of Mitigation and Monitoring Measures presents a summary of the mitigation and monitoring measures identified as a result of undertaking the environmental impact assessments carried out in the preceding chapters of this EIAR.

From the inception of the design and environmental assessment process of the proposed West Clare Railway Greenway, the project team has strived to avoid, prevent and reduce adverse effects, through design details which are incorporated into the design drawings and specifications of the project that have been assessed as part of this EIAR.

Avoidance of impacts is most applicable at the earliest stages of a project, whilst prevention has taken place during the design and environmental assessments process between the design team and EIA team. Mitigation is a last resort and can include a remedy or offsetting of adverse effects. For example, this can apply when projects cannot avoid significant effects due to their need to locate on a particular site, etc. Where likely significant environmental effects have been identified during the environmental impact assessment process, measures have been proposed to mitigate these effects as much as reasonably possible, with any residual effects identified in the relevant chapters of this EIAR.

The objective of this chapter is to provide a central location where all measures from the preceding chapters are presented together for both ease of reference and inclusion in the contract documents at a later stage of the project. All of the mitigation and monitoring commitments in Chapter 21 in Volume 2 of this EIAR are incorporated into the CEMP submitted as part of this planning application.

## 22. NEXT STEPS

On the date of publication of the Proposed Scheme and for the period specified in the notice, submissions or observations may be made in writing to:

*An Coimisiún Pleanála,  
Strategic Infrastructure Development Section,  
64 Marlborough Street,  
Dublin 1,  
D01 V902*

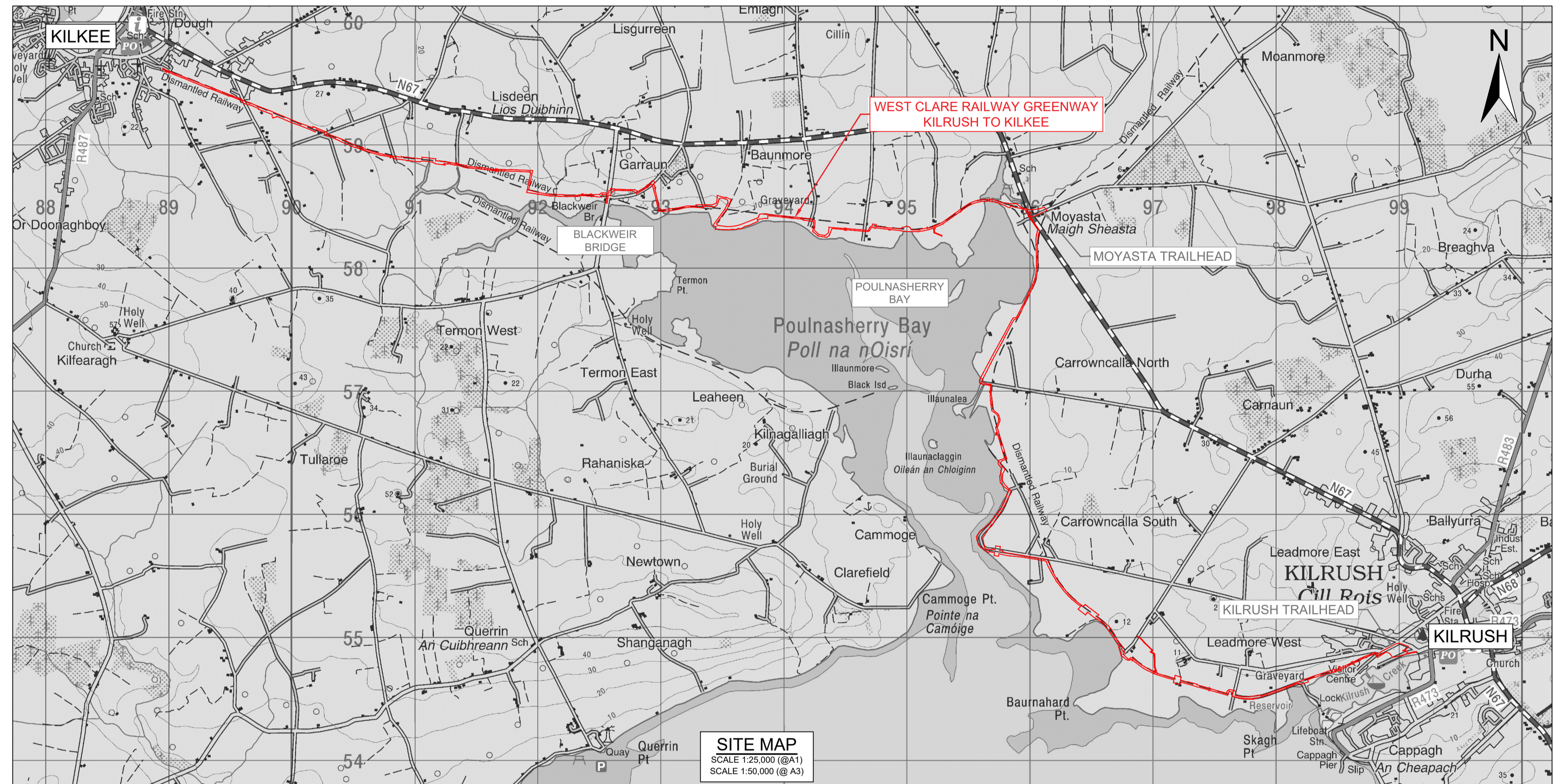
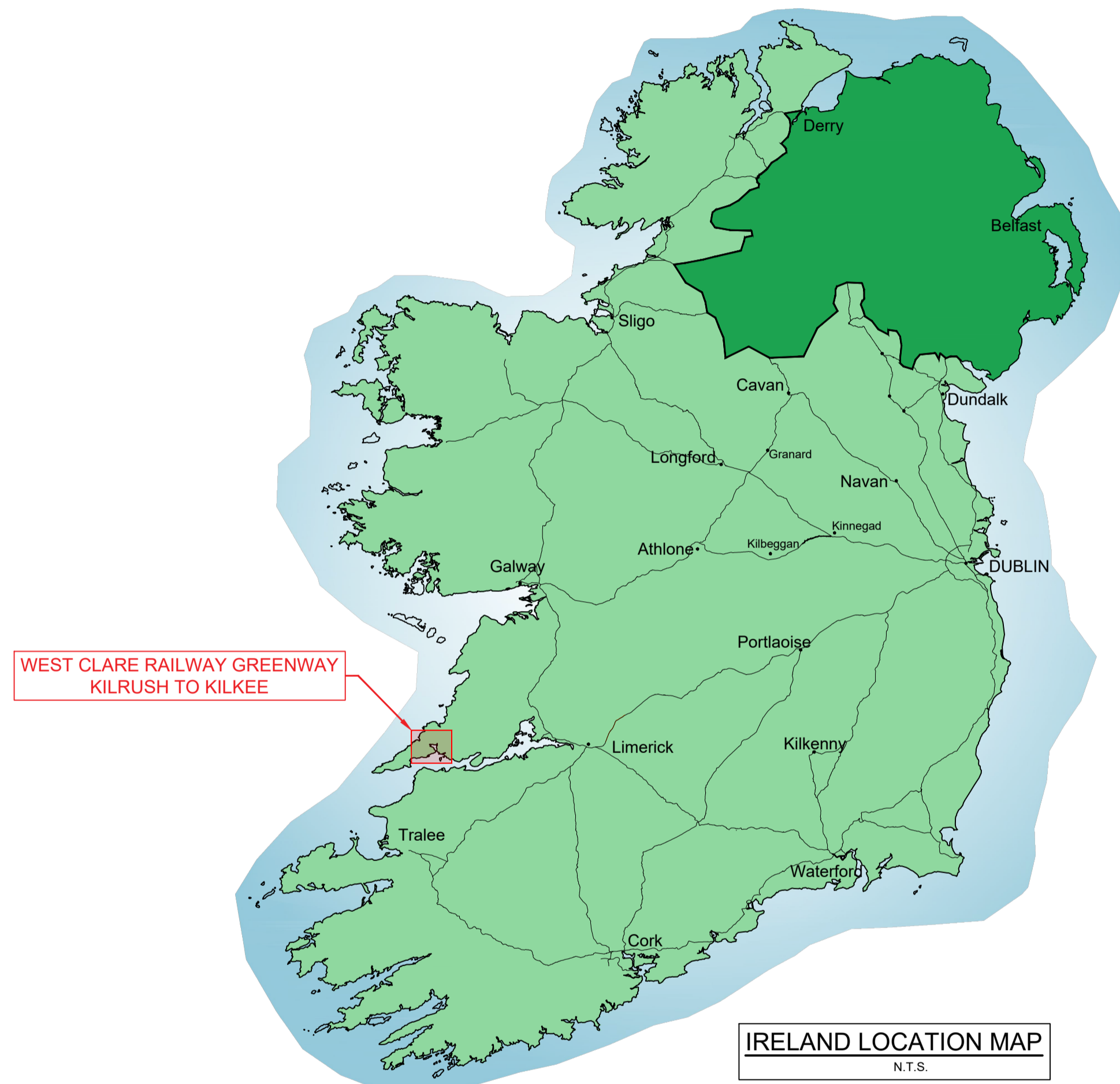
in relation to:

- The likely effects on the environment of the proposed development;
- The implications of the proposed development for proper planning and sustainable development in the area in which it is proposed to situate the proposed development; and / or
- The likely significant effects of the proposed development on a European Site.

An Coimisiún Pleanála may, in relation to an application submitted for approval under Section 51 of the Roads Act 1993 (as amended), by order, approve the proposed development, with or without modifications and subject to whatever environmental conditions it considers appropriate, or may refuse to approve the proposed development.

## **APPENDIX A**

### **Location Plan**



 <p>COMHAIRLE CONTAE AN CHLÁIR CLARE COUNTY COUNCIL</p>		 <p>Bonneagar Iompair Éireann Transport Infrastructure Ireland</p>	 <p>ROUGHAN &amp; O'DONOVAN CONSULTING ENGINEERS</p> <p>Offices: Dublin - Sandford &amp; Santry Leeds - Oley Ireland 1+353 (0) 1 294 0800 UK 1+44 (0) 113 360 1720</p>	<p>Project Title</p> <p><b>WEST CLARE RAILWAY GREENWAY SECTION 1: KILRUSH TO KILKEE</b></p> <p><b>ENVIRONMENTAL IMPACT ASSESSMENT REPORT</b></p>	<p>Drawing Title:</p> <p><b>PROPOSED GREENWAY LAYOUT LOCATION PLAN SHEET 1 OF 1</b></p> <table border="1"> <tr> <td>Drawn: LA</td> <td>File:</td> <td>Status: E.I.A.R.</td> </tr> <tr> <td>Designed: BF</td> <td>Job No: 21.121</td> <td></td> </tr> <tr> <td>Checked: LL</td> <td>Scale: AS SHOWN</td> <td>Drawing No: Fig 1.1</td> </tr> <tr> <td>Approved: EOC</td> <td>Date: January 2026</td> <td>Rev: P0</td> </tr> </table>	Drawn: LA	File:	Status: E.I.A.R.	Designed: BF	Job No: 21.121		Checked: LL	Scale: AS SHOWN	Drawing No: Fig 1.1	Approved: EOC	Date: January 2026	Rev: P0
Drawn: LA	File:	Status: E.I.A.R.															
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Approved: EOC	Date: January 2026	Rev: P0															



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