
Appendix 4.2

Maintenance and Management Plan

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1. INTRODUCTION

This Maintenance and Management Plan is prepared for the proposed West Clare Railway Greenway Section 1 Kilrush to Kilkee.

The West Clare Railway Greenway project will provide an active travel route between the towns of Kilkee and Kilrush via the village of Moyasta in County Clare. The Greenway will be used both for recreational purposes and for utility trips by pedestrians, cyclists and people with impaired mobility.

The West Clare Railway Greenway will form part of the infrastructure under the control of Clare County Council.

This Maintenance and Management Plan should be read in conjunction with the following key documents for the West Clare Railway Greenway (Section 1):

- Environmental Impact Assessment Report (EIAR)
- Natura Impact Statement (NIS)
- Environmental Operating Plan (EOP)
- An Coimisiún Pleanála conditions.

Each of the above documents will be linked / appended to the final Maintenance and Management Plan for the West Clare Railway Greenway.

2. OPERATIONAL MANAGEMENT STRUCTURE

The development, management, and operation of the West Clare Railway Greenway will fall under the jurisdiction of Clare County Council.

Clare County Council will appoint dedicated staff for the Greenway, responsible for its daily maintenance and management. The Area Engineer, based at the local Clare County Council Office, will oversee the day-to-day operations of the Greenway. Additionally, the operational staff assigned to the Greenway will also be based at this office.

It is proposed that the maintenance of the Greenway will be carried out under the authority of the responsible Senior Engineer in Clare County Council. The operational team appointed by the Senior Engineer will report to the Area Engineer and will manage the key responsibilities associated with the operational phase of the Proposed Development. Below is a non-exhaustive list of responsibilities of the operational team:

- Security
- Maintenance of vegetation
- Maintenance of structures, surfaces, drainage and fencing
- Auditing and inspection
- Landowner liaison
- Management of waste
- Severe weather response
- Emergency access
- Management of trailhead facilities such as parking, seating and toilets
- Community engagement, and;
- Complaint response.

2.1 Greenway Management Duties

The Area Engineer, will oversee the management and operation of the greenway, taking on the following essential responsibilities:

- **Community Engagement:** Promote and encourage collaboration with the local community, ensuring their feedback and concerns are taken into account.
- **Central Point of Contact:** Act as the main liaison for all matters related to the Greenway, serving as the primary resource for inquiries and problem resolution.
- **Team Management:** Supervise the maintenance personnel and operatives responsible for the daily operations of the Greenway.
- **Stakeholder Communication:** Communicate with landowners and neighbouring property owners to address ongoing maintenance issues and other concerns related to the Greenway.
- **Monitoring and Inspection:** Create and implement a thorough program for monitoring and inspecting the Greenway to maintain quality and safety standards.
- **Maintenance Program:** Design and carry out a structured maintenance plan to ensure the continuous upkeep of the Greenway's infrastructure and facilities.
- **Severe Weather Response:** Work with the Emergency Services Directorate to develop and manage a Severe Weather Response Plan for the Greenway. This includes an Emergency Response Plan pertaining to flooding, wildfires, etc.
- **Budget Management:** Oversee the Greenway budget, ensuring the effective allocation and utilisation of financial resources.

The personnel assigned to the Area Engineer for the management of the Greenway will carry out a variety of roles and responsibilities, including but not limited to:

- **Maintenance Activities:** Perform essential maintenance tasks to ensure the ongoing upkeep of the Greenway.
- **Monitoring:** Continual monitoring of the Greenway and its users to ensure smooth operations and promptly address any emerging concerns.
- **Complaint inspection and resolution:** Receive and respond to any complaints from users or landowners adjacent to the greenway, promptly resolving any concerns.
- **Waste Management:** Undertake regular waste collection and disposal including of toilets under the responsibility of Clare County Council at the trailheads to ensure no waste/litter-related issues occur along the Greenway.
- **Regular Inspection:** Carry out routine inspections of the Greenway to identify and address any potential problems or hazards.

2.2 Details of Management Duties

2.2.1 Maintenance of vegetation

The operational team will be responsible for the management of vegetation, boundary hedges, grass verges of 1m on either side of the greenway, and any other landscape planting associated with the Proposed Development. Hedging must be maintained at a height of approx. 1.4m at sensitive locations during the Wintering Bird Season, particularly along the Moyasta Causeway. Should screening fail during the operational stage, appropriate temporary screening will be installed by the operational team. The cause of vegetation failure will be investigated and addressed prior to replacement vegetation being installed.

2.2.2 Maintenance of structures, surfaces, drainage and fencing

It is the responsibility of the operational team to inspect and maintain bridges to ensure safe use and functionality. Repairs to surfacing such as cracks, uneven surfaces and potholes are

also to be managed by the operational team. Maintenance duties include regular road sweeping along the greenway, litter collection and gritting of icy surfaces. If cellular paving is used at trailheads this will also require topsoil replacements and reseeding from time to time to ensure hydrocarbon capture.

The operational team will clear drainage infrastructure, where required, to prevent standing water and ensure effective water flow through ditches, swales and culverts along the greenway route. Along greenfield sections, the Proposed Development will have the standard 1.4m high stockproof fence, or as agreed with landowners. In sensitive areas, additional screening may be provided. It is the responsibility of the operational team appointed by Clare County Council to periodically inspect these measures and ensure they are fit for purpose, providing repairs where necessary.

2.2.3 Auditing and inspection

The operational team shall conduct regular inspections to identify and mitigate potential hazards, including damaged trees, structural defects, slippery surfaces, or other unsafe conditions. It is anticipated that pedestrian and cycle counters will be installed at various intervals along the length of the scheme to monitor usage.

2.2.4 Landowner Liaison and Community Engagement

The operational team will promote and encourage collaboration with the local community, ensuring their feedback and concerns are taken into account. They will also be responsible for communications between landowners and Clare County Council during the operational phase, ensuring clarity amongst both parties in terms of maintenance plans, repairs and any concerns raised.

2.2.5 Management of Trailhead Facilities

The operational team shall be responsible for the upkeep of trailhead facilities. This involves the cleaning and maintenance of toilets, rest areas, seating, picnic tables, bicycle racks, and other amenities to ensure they remain safe, functional, and comfortable for users.

2.2.6 Management of Waste

Waste generated by users of the Greenway in its operational phase will be managed by Clare County Council. Waste disposal facilities are proposed at each of the two trailhead locations, including general, organic and dried recyclable waste. These facilities will be provided, inspected and maintained, and serviced by Clare County Council. Dog fouling receptacles and waste bins shall be placed at suitable intervals along the greenway. Clare County Council will be responsible for the management of these bins and receptacles. 'Leave No Trace' signage will be provided at trailheads and rest areas.

2.2.7 Monitoring

Clare County Council will create a comprehensive monitoring plan to assess the usage of the greenway. This plan will be developed in accordance with TII Publications Rural Cycleway Design (Offline & Greenway). In addition to monitoring greenway usage, Clare County Council will implement the Greenway Biodiversity and Landscape Management Plan (refer to Section 3) which will set out the monitoring protocols of the greenway.

It is proposed that the monitoring plan will include a review after 1 year and then every 3-5 years. This monitoring plan would look at the following items:

- Visitor numbers
- Peak usage
- User type split
- Car park usage
- Invasive species

- Infrastructure condition (surface, signage, lighting)
- Boundary treatment inspection
- Incident report
- Complaints record addressing type, response time
- Number of weather-related events that impacted the greenway.

2.2.8 Complaint Management and Resolution

Clare County Council will establish procedures to facilitate user feedback or report issues that may arise during greenway operations. These procedures will include:

- Clare County Council will promote and advertise the available channels for lodging complaints, utilising various platforms. Signage will be installed at all trailheads, providing contact details (telephone and email) for Clare County Council. These contact details will be available during both office hours and out-of-hours.
- Clare County Council will record and document complaint details in a central register dedicated to the Greenway. This will allow for better understanding and resolution of the issues raised.
- The Area Engineer will then investigate and assess each complaint to determine the facts of the case.
- The Area Engineer will carry out an assessment and implement measures to address the complaint as quickly as possible. The Area Engineer may engage with the person who raised the complaint to see if the proposed response is considered reasonable.
- Once the Area Engineer has determined the appropriate response, they will engage with the person who raised the complaint to ensure the proposed solution is satisfactory, in so far as possible.
- After resolving the complaint, the Area Engineer will contact the person who made the complaint to verify their satisfaction with how the matter was handled. Upon confirmation of satisfaction, the complaint will be closed on the central register.
- In addition to the complaint management procedures, the Area Engineer will develop and implement internal protocols to address various scenarios, particularly emergency or safety issues.
- Regular reviews of all complaints will be conducted to identify any recurring issues.

3. GREENWAY BIODIVERSITY AND LANDSCAPE MANAGEMENT PLAN

Long-term maintenance and management of the proposed development will adhere to best practice guidance made in PE-ENV-01109, Environmental Impact Assessment of Rural Cycleways (Offline & Greenway) – A Practical Guide. A Greenway Biodiversity and Landscape Plan shall be developed and implemented by Clare County Council to ensure long-term maintenance of the Greenway and commitment to biodiversity enhancement objectives.

This Plan shall be developed in accordance with the objectives set out in the Clare County Biodiversity Action Plan 2025-2031 and shall detail:

- The existing environmental baseline in terms of landscape context;
- The specific areas which require biodiversity or landscape management and monitoring measures;
- Areas that require protection and/or restoration during operational phases of the proposed development;
- Land ownership and boundary treatment details;

- The measures being implemented to minimise unwanted weeds and invasive alien species;
- Maintenance responsibilities, including weed control, mulching, and replacement of any planting failures, including permeable paving at trailhead locations;
- Timing of regular operations, to ensure compliance with biodiversity restrictions e.g. nesting birds;
- The monitoring of ecological enhancement and screening features and details outlining how these will be maintained,
- Monitoring protocols to track key indicators such as species richness, habitat connectivity, and vegetation health;
- Water quality and groundwater level monitoring protocols;
- Remedial measures and actions to implement should any deficiencies in habitat performance or biodiversity outcomes be detected;
- Monitor and manage the greenway's impact on surrounding wildlife and habitats;
- Lighting management and maintenance protocols; and
- Monitoring measures as required as part of the EIAR or NIS.

4. MAINTENANCE PLAN, INSPECTIONS AND ACTIVITIES

The maintenance plan will comprise the following elements:

- Greenway monitoring schedule: This schedule outlines the frequency and specific activities for regular monitoring of the greenway.
- Greenway monitoring forms: Documentation forms should be provided to record any issues or concerns identified during greenway monitoring. These forms will ensure consistent and thorough documentation of maintenance needs.
- Route maintenance work: Develop strategies and procedures for conducting maintenance work on the Greenway route. This includes guidelines for repairs, upgrades, and addressing any issues found during monitoring.
- Planner templates: Provide templates that assist in planning and scheduling routine maintenance tasks. These templates will streamline the maintenance process and ensure that tasks are adequately planned and executed.
- Weekly record sheets: Utilise record sheets to track the actual maintenance activities performed by the greenway management team or external contractors. These sheets should capture details such as the nature of the work, resources used, and the date of completion.
- Comprehensive records of the greenway management team: Maintain detailed records of all team members involved in greenway management, including their roles, responsibilities, and training requirements. These records will help track personnel qualifications and ensure proper training for the team.

The maintenance plan will include the following tasks:

- Surface Maintenance: Carry out routine inspections and repairs of the greenway surface, road sweeping, addressing potholes, cracks, and uneven sections to maintain a safe and smooth surface for pedestrians and cyclists.
- Signage and Markings: Inspect, clean, and repair all signage, wayfinding elements, directional signs, and pavement markings to ensure they remain visible, legible, and accurate.
- Fences: Regular inspection (and following extreme events) and repair of any damage. This is particularly important where the fence is present for livestock containment or user safety.

- **Vegetation:** Ensure any vegetation requiring cutting back is maintained to ensure safe usage of the greenway and any management is undertaken in the appropriate season or under the appropriate supervision
- **Litter and Waste Management:** Perform routine litter collection and waste removal, including emptying bins and dog fouling receptacles, to maintain a clean, welcoming, and well-presented environment.
- **Drainage Maintenance:** Maintain and clear drainage infrastructure such as ditches, swales, and culverts to prevent standing water and ensure effective water flow along the route.
- **Permeable Paving:** Maintain permeable paving in trailheads which have been subject to fuel spills and grass dieback (where applicable). Localised grubbing out of pockets and replacement with topsoil and grass seed where applicable (e.g. if grasscrete or similar is installed).
- **Bridge and Infrastructure Maintenance:** Inspect and maintain bridges, fencing, lighting, traffic signals and other structural elements to ensure safety, functionality, and structural integrity. Further detail is provided in Section 4.1.
- **Safety Inspections:** Conduct regular inspections to identify and mitigate potential hazards, including damaged trees, structural defects, slippery surfaces, or other unsafe conditions.
- **Trailhead, Rest Area and Amenity Maintenance:** Inspect and maintain toilets, rest areas, seating, picnic tables, bicycle racks, and other amenities to ensure they remain clean, safe, functional, and comfortable for users. This includes the management of the waste bins and dog fouling receptacles.
- **Winter Maintenance:** Where required, clear snow and ice and grit surfaces during winter months to maintain safe and accessible conditions for users.
- **Severe Weather Response:** Following severe weather events, for example flooding, inspections and maintenance activities will take place, including surface cleaning and cleaning of drainage infrastructure.

4.1 Structures

The design of the proposed structures along the scheme prioritises durability to minimise future maintenance interventions. Structures are fully integral to remove the need for inspection, maintenance and replacement of bearings. There will be no expansion joints on the structure, and all buried concrete surfaces will be waterproofed in accordance with TII Specification for Roadworks. Weathering steel eliminates the need for painting cycles and a sacrificial thickness has been allowed for in the design. Exposed concrete will be sealed with hydrophobic impregnation.

With respect to existing structures, without bearings or joints, these structures too will have a low maintenance requirement.

The maintenance plan will include a schedule for regular inspections for both new and existing structures under a routine bridge management system. The only maintenance required will be periodic cleaning of the decks and deck drainage systems.

Routine maintenance activities are as follows:

- Clean accumulated debris from superstructure
- Check pavement for evidence of rotation / longitudinal movement.
- Remove any vegetation on structure.
- Check parapet fencing is secure and free from rot (existing structures).

- Check parapet fencing to ensure it is undamaged, free from corrosion and all bolts are tight (new structures).
- Open and inspect drainage channels, grates, pipes to ensure they are functioning correctly.
- Drainage should be rodded to ensure that there are no blockages and it is functioning correctly.
- Inspect all visible elements such as substructure and superstructure soffit for signs of cracking or damage.

5. Code of Conduct

Greenway users are required to comply with the statutory provisions of the Road Traffic Act 1993, as amended and By-Laws prescribed by Clare County Council to regulate and control use of the Greenway. Additionally, a new Code of Conduct will be developed by Clare County Council for users of shared use trails, including Greenways. This will be developed taking account of the suggested code of conduct for shared use trails published by the National Trails Office, or similar.

At the two trailhead locations, information panels will be constructed in line with the Department of Transport Tourism and Sport's 'Greenway Design and Brand Guidelines' (2018) and 'Greenways and Cycle Routes Ancillary Infrastructure Guidelines' (2022). These information panels will display, at a minimum, The Code of Conduct, a Clare County Council contact number for reporting, 'Leave No Trace' signage and a map of the route showing the user's current location.

6. Control of Dogs

Clare County Council, through the Code of Conduct displayed on information boards and the project website, will remind all dog owners of their responsibilities, which are outlined below:

- To keep all dogs on a lead at all times while using the greenway.
- To keep their dogs under control at all times.
- To have a licence for their dog(s).
- To collect and properly dispose of faeces deposited by their dog on the Greenway.

In addition to the Code of Conduct, the following will be undertaken as part of the greenway design and/or maintenance plan:

- Signage with clear messaging to remind users to keep their dogs on a lead and pick up and dispose of dog excrement using the bins provided
- Dog fouling receptacles that are well-maintained and strategically located.
- Waste bag dispensers at trailheads and appropriate spacing along the greenway.
- Regular greenway surface cleaning
- Enforcement measures to ensure compliance.
- Ensuring bins and receptacles are accessible for all users
- Feedback mechanisms for users to report issues.

In the event of a complaint being raised relating to dogs attacking livestock or inflicting damage to private property, Clare County Council shall investigate and record all details relating to the incident before contacting the Department of Agriculture. The Dog Warden and associated staff, under the authority of Clare County Council, have authorisation to issue fines or prosecutions to users not adhering to the code of conduct.

7. Water Safety

The route of the proposed development crosses over, or runs adjacent to, several waterbodies. Clare County Council is committed to promoting water safety along the greenway. For the safety of greenway users, post and rail fencing will be constructed as edge protection adjacent to existing structures. All new road and river bridge designs include parapet railings.

8. Severe Weather Response Plan

New infrastructure has been designed to include allowances for climate change, including extreme weather events and flood risk. A site-specific severe weather plan will be developed in coordination with Clare County Council's Major Emergency Management Committee. The plan will be set out in accordance with Guidance Document 14 – A Guide to Severe Weather Emergencies (February 2020), published by The National Directorate for Fire & Emergency Management of DHPLG.

9. Emergency Access Plan

The Emergency Access Plan will detail how Clare County Council and Emergency Services will respond in the event of an emergency. This may include accidents, medical emergencies, wildfires or any other incident that requires the emergency services. The operational team will have responsibility for the operation and emergency planning for the amenity. The emergency team will respond to all emergencies as reported to them and will put the emergency plan into place which include cooperation with the emergency services. Emergency services contact details will be available at each of the trailheads.

The Greenway pavement width of 3m will be sufficiently wide to allow emergency vehicles (ambulances, fire service and mountain rescue etc.) to travel on the Greenway. Bollards restricting general vehicular access onto the greenway will be removable by Emergency Services and Operational Staff. Emergency vehicles can turn at certain points along the route to return to the same path or continue along the greenway to the next access point to rejoin the public road. While the proposed pavement width of the greenway allows direct access to an incident by the fire service, it should be noted that structures along the scheme have not been designed to take the loading of a vehicle the size and weight of a fire engine. Access to the trailhead car parks will be provided for these vehicles.

Marker posts will be erected at frequent intervals (500m in accordance with DN-GEO-03047) to inform people of their location when in need and to direct them to the nearest access. An Emergency Access Plan will be developed by Clare County Council.

Emergency services will be provided with the Emergency Access Plan, detailing all points of access across the route, including the nearest turning point, chainage of each access location and the maximum distance to the nearest access point.

The final Emergency Access Plan will be developed as the project progresses and all stakeholders are considered and consulted. The final Plan will be shared with the local ambulance and fire service to ensure alignment and awareness of the proposed approach. Once developed, the Plan will be audited and reviewed at a minimum occurrence of once a year. The review of any emergency events that required vehicular access will inform the revision of the Plan.

10. Security

There is no general vehicular access to the greenway from public access points. Chicanes are not proposed as they are difficult for bicycles and wheelchairs to navigate. The strategic

use of signage and street furniture will restrict vehicular access but allow unimpeded access for non-motorised users. The barriers implemented will be removable to allow for emergency and maintenance access. Illegal parking will be managed through the provision of landscape measures, preventing vehicles from parking on private property near crossing points of the greenway with public roads.