

Limerick Greenway Hub @ Newcastle West Services Building Ecological Appraisal Report

Prepared by Rory Dalton for Limerick City and County Council.

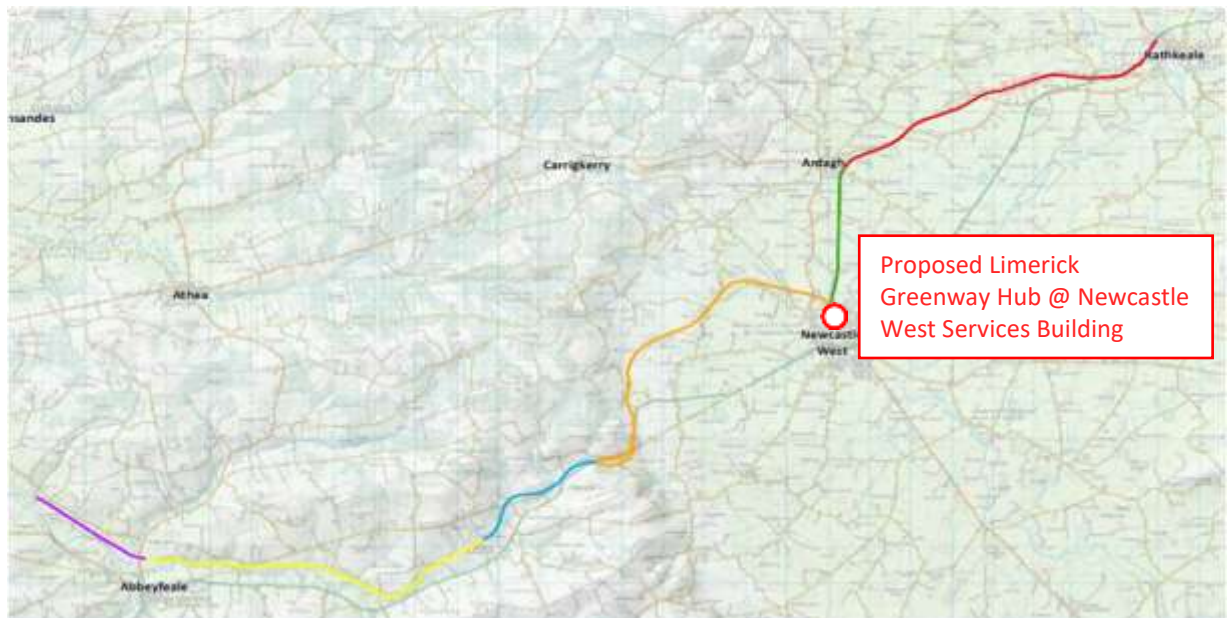


Table of Contents

1. Introduction 2

 1.1 Introduction..... 2

 1.2 Description and Location of Sites 2

 1.3 Proposed Works 2

2. Methodology 6

 2.1 Field Study 6

 2.1.1 Habitats..... 6

 2.1.2 Mammals..... 6

 2.1.3 Bats 7

 2.1.4 Avifauna..... 7

 2.1.5 Aquatic Surveys 7

3. Existing Environment 8

 3.1.1 Habitats..... 8

 3.1.2 Non-volant Mammals 8

 3.1.3 Bats 9

 3.1.4 Birds 9

 3.1.5 Aquatic Fauna 9

 3.1.6 Habitat Map..... 9

4. Bibliography 10

Rev	Author(s)	Checked	Details	Date
01	RD	MJMCN	Issue to Client	11/07/2023

1. INTRODUCTION

1.1 Introduction

Rory Dalton Ecology was appointed by LCCC to prepare an ecology report of the footprint of the proposed Limerick Greenway Hub @ Newcastle West. The proposal seeks to provide parking and other amenities for the users of the greenway. A designated car park will cater for existing numbers, and will facilitate the expected rise in the number of people using the greenway. A new services building will consist of a bike hire depot, coffee dock, storage space and toilet facilities. An Appropriate Assessment Screening was also carried out on the same items to assess their potential impacts on Natura 2000 sites within the area.

1.2 Description and Location of Sites

The proposed development is located on the outskirts of Newcastle West just off of Station Road adjacent to the Newcastle West Recycling Centre. This location will provide greenway users starting their journey at Newcastle West with the choice of travelling east towards Ardagh (3.8km) and Rathkeale (12.6km) or west towards Templeglantine (13.2km) and Abbeyfeale (22.3km). The development is to be situated at ITM 528009 634687, on the confluence of the eastbound and westbound lines from Newcastle West Station on the Great Southern Railway's Limerick to Tralee line. The former train station was once an important stop along the Great Southern Railway's Limerick to Tralee line, which is also known as the 'North Kerry Line'. In 1880 the line from Limerick to Barnagh and onto Tralee opened providing a link for the transport of both passengers and goods. The North Kerry Line ceased to carry passengers in 1963, however the line continued to carry goods traffic until 1977. The tracks of the Limerick to Tralee line were finally removed in 1988. The line has since become a Greenway providing amenity to locals.

1.3 Proposed Works

Part VIII planning permission was previously approved for the Limerick Greenway Hub @ Newcastle West Car Park (Planning reference 228019).

The Limerick Greenway has proved to be an extremely popular recreational amenity with a footfall of close to 600,000 in its first year of operation and close to 700,000 in its second year. Due to the increased popularity of the greenway in its first 2 years of operation it was decided to increase the scope of the proposed development at Station Road to include a Greenway Hub services building. The building will include bike hire, coffee dock, toilets, store and services.

Works to include all site development works for the building including utilities, landscaping and public realm around the building.

The proposed Limerick Greenway Hub @ Newcastle West now includes

- Provision of a public plaza.
- Provision of a pedestrian and cycle crossing connecting to the Bishop's Court trail.
- Provision of a 243m² building, providing bike hire and toilet facilities.

- Provision of ancillary public amenity features such as benches, bike stands, bike repair station, bins, drinking water fountain, route maps and signage.
- Provision of additional architectural planting and trees.
- Provision of 73nr. Standard Car Parking Spaces.
- Provision of 5nr. Disability Spaces.
- Provision of 1nr. Universal Access Space for Electrical Vehicle Charging.
- Provision of 3nr. Spaces for Electric Vehicle Charging.
- Provision of 2nr. Coach and Mini-Bus Spaces.

To maximise the potential of the site, a public realm architect was engaged to advise on the new hub layout. This layout not only provides a practical car parking facility, but an attractive amenity that will act as a greenway trailhead for users and local residents in Newcastlewest. Based on the ecological survey completed the design has been shaped around the existing habitat, the area at the back of the site consisting of blackthorn dominated scrub land and dry meadows and grassy verges will be protected and preserved in its current state. It is planned also that the hedgerows on the west and east of the site will be protected and preserved. The internal car park layout has been designed to achieve a good balance between providing sufficient public amenity space for the large number of visitors expected while also providing greenspaces and serval pockets earmarked for planting.

The existing site is steeply sloped and the gradient will be moderated during the construction of the proposed greenway hub to ensure that the achieved gradient is suitable for all users. All surfacing, kerbs, access points at will be designed for universal accessibility. To make the Greenway Hub attractive to local residents or greenway users without cars, a welcoming entrance plaza is proposed adjacent to Station Road with the car parking facilities located behind. The plaza will consist of paved and landscaped areas complete with a greenway totem, directional signage, water fountains, benches and bins. Further paved and landscaped green areas will be provided within the site and adjacent to the existing greenway route with, bike parking, bike maintenance station and a services building providing bike hire and toilet facilities. The plaza at the north side of the site will also be furnished with directional signage, water fountains, benches, tables and bins making the car park an attractive outdoor recreational destination in its own right.

To provide safe access to both the proposed Greenway Hub and the existing civic amenity centre west of the site a shared entrance has been proposed. Within the greenway hub a one-way entrance/exit system is proposed. A central island will divide traffic lanes within the car park at the rear of the site where parking for vulnerable road users is to be provided. The width of the central island has been increased to provide additional space for greenway users. Wide walkways and a two-way cycle track are to be provided down the eastern edge of the site connecting the greenway and recreational areas to the rear of the site. Changes in road surfacing material are frequent within the proposed greenway hub encouraging lower vehicle speeds and highlighting areas where pedestrian and vulnerable road users may cross in front of motorists. The car parking areas are to be lined with trees, bushes and other landscaping elements to tie-in with the rear of the site and the plaza, providing a consistent aesthetic throughout the site. An existing signalised pedestrian crossing is located 60m west of the proposed Greenway Hub. The pedestrian crossing services the existing school on the south side of Station Road. Following consultation with the School it has been decided to extinguish this crossing point. In its place a new 6.0m signalised and raised toucan crossing will be provided connecting the school to the greenway hub and car park. The raised table at the crossing and build out in the kerbing will act as a traffic calming feature and give greenway users wishing to continue on to the town centre via the Bishops Court trail section a safe, raised crossing point. Pavement build outs, bollards, road marking and road signage will be provided to slow down motorists on approach to the crossing point.

Chicane gates will also be provided on approach to the crossing and plaza to slow down cyclists, further reducing the likelihood of collision between greenway users and vehicular traffic along Station Road. Bollards and planting will be used in strategic locations to remove desire lines and funnel greenway users, school children and local residents to the wide crossing points. A non-signalised raised courtesy crossing will also be provided across the amenity centre access road as part of the development.

The path of the existing greenway will be realigned along the back of the site. This will be done as a first stage so that greenway users can be diverted onto this new realigned section of greenway which construction works on the southern end of the site continue. Site clearance will be undertaken in the areas outside of those identified for retention. The footprint of the realigned greenway will be excavated down to a suitable formation level, granular capping and sub-base will be laid and compacted before the greenway is finished with an asphalt surface. Ducting will be installed crossing the greenway to allow for utility services.

- Drinking Water
- Communications
- Electricity for Public Lighting & Traffic Signals
- Electricity for Electric Vehicle Charging
- Electricity for the Building and Ancillary Infrastructure
- Piping for future sewer (to be connected to existing sewer main running along south side of the site)

The existing site is quite steep at the southern end, earthworks will be completed to achieve a shallower gradient more suitable for users of all abilities. The existing topsoil will be removed down to a competent formation level. This top soil will be saved and reused during the landscaping stage of the project. Once the formation level has been established, suitable granular capping material will be placed and compacted in accordance with TII specification for road works. Once completed the sub-base will be installed. The sub-base will be graded to ensure a consistent cross fall for appropriate drainage.

The proposed boundary treatment aims to retain the existing established hedging and fencing. This will be supplemented with additional planting and fencing. At the south end of the site, existing footpath and stone wall will be replaced by a welcoming plaza surfaced with select limestone paving. Paving will be installed on an appropriate sub-base and will be set in compacted bedding sand. Select planting will distributed throughout the greenway hub to maximize the green space will be placed in the areas highlighted. Planting will include a diverse mixture of species in line with the Pollinator Friendly Planting Code.

The main car park area will be paved with asphalt, this will be made, laid and rolled in accordance with TII specification series 900. In the areas highlighted select limestone road pavers will be user to provide raised areas with contrasting surface colour and texture to act as traffic calming. The limestone road paving will be set in bedding sand laid on top of a well compacted granular sub-base.

Ancillary works will include provision of public lighting, installation of benches, bike stands, bike repair station, solar powered compactor bins, CCTV, road markings and signage.

The proposed services building, to be constructed at the north of the site, will include bike hire, coffee

dock, toilets, store and services. Works to include all site development works for the building including utilities, landscaping and public realm around the building.

The design intent is to realise a simple contemporary building. Anticipating the overall site strategy, it is intended that the building will respond appropriately to its context and function in terms of form, scale, colour and expression.

The intention is to propose a high-quality palette of materials which resemble the Irish vernacular and at the same time are durable and easy to maintain. The proposed materials palette will include glazing, fibre cement panels (corrugated and flush). The green tone of the fibre cement panels is proposed to represent the narrative of the buildings purpose on the Greenway. It is intended to be landmark building and a point of arrival for the locals and tourists using the Greenway.

The material selection and architectural design of the Greenway Hub Building, aims to achieve a unified contemporary look with ties to an old Ireland and its use of corrugated metal sheets from farm buildings and storage sheds.

The building is positioned in such a way to allow the public aspects of the design to face both the Greenway route and car parking; whilst all ancillary spaces and services face to the rear.

Selected materials

- Selected Paint Finish.
- Selected Corrugated Fibre Cement Cladding to Architect's Detail and Specification.
- Selected Flush Fibre Cement Cladding to Architect's Detail and Specification.
- Selected Corrugated Fibre Cement Roof Panels.
- Selected Galvanised Steel Façade Profile to Architect's Detail.
- Selected Aluminium Windows and Door System.

2. METHODOLOGY

2.1 Field Study

Ecological surveys were carried out on the 29th of September 2020, and again of the 6th of July 2022 after it was decided to extend the capacity of the car park. The site was visited and surveyed in detail utilising the methods laid out within this section of the report. Particulars of the surveys are outlined in Table 1 below.

Table 1: Baseline Field Assessment Details

Date	Weather	Surveyor
29 th September 2020	Temperature: 15 degrees Celsius Rain: None Cloud: 6/8 Wind: F3	Rory Dalton
6 th of July 2022	Temperature: 19 degrees Celsius Rain: None Cloud: 0/8 Wind: F0	Rory Dalton

2.1.1 Habitats

The habitats within the study area were identified and classified according to 'A Guide to Habitats in Ireland' (Fossitt, 2000) during walkover surveys of the site. The plant species present in each habitat type was recorded.

Habitats were appraised according to their occurrence as protected habitats under Annex I of the EU Habitats Directive (92/43/EEC) and for their capacity to support rare, threatened and endangered species. The methodology used in this report to assess the ecological significance of habitats is based on NRA guidelines (2009).

2.1.2 Mammals

Mammal surveys were carried out. During these surveys the footprint of the site and the immediate surrounds were surveyed for signs of mammal activity; this included a buffering distance of >50m from all proposed infrastructure. Any sightings, tracks or signs (including droppings, resting places, footprints etc) of mammals occurring within, or in the vicinity, of the site were sought and recorded. Of particular interest were burrows of the various mammal species.

Surveys were undertaken in accordance with the NRA's (2009b) 'Ecological Surveying Techniques for Protected Flora and Fauna During the Planning of National Road Schemes' and the JNCC's (2004) 'Common Standards Monitoring Guidance for Mammals'.

2.1.3 Bats

Evidence of bat roosts was searched for and information on all potential roosts were recorded according to roost identification guidelines Collins, J. (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines.*, as well as 'Bat Survey Guidelines: Traditional Farm Buildings Scheme', Aughney, T., Kelleher, C. & Mullen, D. (2008). A roosting habitat suitability survey was carried out on any mature trees within the footprint of the proposed works. The foraging habitat suitability was also assessed.

2.1.4 Avifauna

Surveying was carried out outside the breeding bird season during the first visit, and late season during the second visit, and as such it was decided to assess the footprint of the car park for its nesting potential by identifying suitable trees, habitats and items such as stone walls etc. At the moment there is no best practice guidance for nesting suitability, and so the surveyor was depending on experience, particularly that gained from carrying out bird surveys for the cutting of vegetation which is deemed to be dangerous in terms of sight-lines at junctions for Irish Rail within the breeding season.

2.1.5 Aquatic Surveys

Aquatic ecology surveys were limited to assessing the condition of the drainage ditches in the area as there were no suitable water features in the area.

3. EXISTING ENVIRONMENT

3.1.1 Habitats

There are four habitats onsite; buildings and artificial surfaces (BL3) (of no ecological interest), scrub (WS1) (Local Importance Lower Value for bramble dominated and Local Importance Higher Value for blackthorn dominated scrub) and hedgerow (WL1) (Local Importance Lower Value) and Dry meadows and grassy verges (GS2) (Local Importance Higher Value). There are two distinct types of scrub on the site, one consisting of bramble *Rubus fruticosus* agg., thistle *Cirsium vulgare* nettle *Urtica dioica*, and another dominated by blackthorn *Prunus spinosa* while containing some willow *Salix* sp and hawthorn *Crataegus monogyna*. The hedgerows consisted of hawthorn *Crataegus monogyna*, ivy and bramble. The dry meadows and grassy verges consisted of cock's-foot *Dactylis glomerata* Yorkshire-fog *Holcus lanatus*, smooth meadow-grass *Poa pratensis*, and meadow foxtail *Alopecurus pratensis*. The broadleaved herb component of the meadow was characterised by cow parsley *Anthriscus sylvestris*, creeping buttercup *Ranunculus repens*, meadowsweet *Filipendula ulmaria*, yarrow *Achillea millefolium*, nettle *Urtica dioica*, common knapweed *Centaurea nigra*, bush vetch *Vicia sepium*, meadow vetchling *Lathyrus pratensis*, pignut *Conopodium majus* and creeping cinquefoil *Potentilla reptans*.

It should be noted that this type of meadow habitat is becoming increasingly rare in Ireland, and as such it is being integrated into the design as a nice example of a traditional meadow along the greenway. As is discussed below, the blackthorn dominated scrub provides a locally significant nesting habitat for birds and locally significant burrowing habitat for mammals, and as such, the majority of this is being left as it is and being integrated into the design as a feature of local ecological importance on the greenway. Essentially, the southern half of the site is less important ecologically; this is where the car park is to be located, and the northern half of the site is more important ecologically; this is to remain largely as it is and will become a feature of natural heritage at the hub.

3.1.2 Non-volant Mammals

The majority of the site in terms of surface area was accessed to survey for mammals and no burrows were found, however, the blackthorn dominated scrub was too dense to gain access for surveying. This blackthorn dominated scrub is very suitable for burrowing mammals as it provides excellent cover and excludes potential predators and nuisances. This blackthorn dominated scrub, which is mainly along the north of the site, is quite extensive in terms potential burrowing habitat and is likely to be locally important to mammals. A fox was spotted at the verge of this scrub during the second visit, and fox scat was present on both occasions. No snuffle holes or latrines, which would indicate the presence of badgers, were found, though absence of proof is not proof of absence.

Given the habitats on site, it is possible that the site is being used by wood mouse and brown rat, and potentially by pygmy shrew and bank vole. The hedgerows, as well as the edge of the scrub habitats, and adjacent field edges are suitable for Irish stoat and hedgehog; the former utilising habitat edges to hunt, and the latter utilising the cover of habitat edges for concealment and the adjacent open areas to forage. It is suggested that vegetation be cleared prior to any excavation works in order to survey for mammal burrows.

3.1.3 Bats

There was no potential for roosting bats on the site. There were no sheds or buildings on the site. The trees onsite were also unsuitable as they were too small, and did not contain holes or cracks. One tree had a considerable growth of ivy, however, it consisted of a narrow stem of ivy along the trunk of the tree and a crown of ivy growing on amongst the crown of its host; this is not in-keeping with the Collins (2016) definition of a potential roost feature as being: “partially detached ivy with a stem diameter of greater than 50mm”.

3.1.4 Birds

The hedgerows and areas of blackthorn dominated scrub provide an extensive area of quality nesting habitat for birds, as these areas provide ample cover from predators and the elements. In terms of foraging, these habitats also provide excellent foraging for birds, as does the meadow habitat. The mature hedgerows and blackthorn dominated habitat would be considered locally important for birds.

3.1.5 Aquatic Fauna

There were no features on the site which would provide habitat for aquatic fauna.

3.1.6 Habitat Map



4. BIBLIOGRAPHY

Bailey, M. and Rochford J. (2006) Otter Survey of Ireland 2004/2005. Irish Wildlife Manuals, No. 23. National Parks and Wildlife Service, Department of Environment, Heritage and Local Government, Dublin, Ireland.

Couzens, D., Swash, A., Still, R., Dunn, L.,(2017) Britains Mammals; A field guide to the mammals of Britain and Ireland. Princeton University Press

Crisp, D.T., (2000) Trout and Salmon. Ecology, Conservation and Rehabilitation. Blackwell Science: Oxford

Environment Agency's 'River Habitat Survey in Britain and Ireland Field Survey Guidance Manual 2003'

EPA(2020) EPA map viewer. Last accessed on 10.11.2020 at <https://gis.epa.ie/EPAMapsFossitt> Julie

A, A Guide To Habitats In Ireland (2000)

Greenhalgh (2007).,Freshwater Life Britain and Northern Europe (Collins Pocket Guide) byGreenhalgh, Malcolm, Ovenden, Denys (2007)

GEO (2020) Geohive Historical Map Viewer. Last accessed on 10.11.2020 at <http://map.geohive.ie/>

Maitland PS (2003). Ecology of the River, Brook and Sea Lamprey.Conserving Natura 2000 Rivers Ecology Series No. 5. English Nature, Peterborough.

Nairn, R. and J. Fossitt (2004) The Ecological Impacts of Roads, and an Approach to their Assessment for National Road Schemes. In: J. Davenport and J.L Davenport (eds) The Effects of Human Transport on Ecosystems: Cars and Planes, Boats and Trains, 98-114. Dublin. RoyalIrish Academy

NRA (2005). Guidelines for the Crossing of Watercourses during the Construction of NationalRoad Schemes. Dublin: National Roads Authority

NRA, 2006. Guidelines for the Treatment of Badgers prior to the Construction of National RoadSchemes. Dublin: National Roads Authority.

NRA, 2007 Guidelines for the Treatment of Otters prior to the Construction of National Road Schemes. Dublin: National Roads Authority.

NRA (2009a). Guidelines for Assessment of Ecological Impacts of National Roads Schemes Rev. 2. Dublin, National Roads Authority

NRA (2009b) Ecological Surveying Techniques for Protected Flora and Fauna during the Planning of National Road Schemes, National Roads Authority