



BIODIVERSITY PLAN

Father Russell Road Cycle Scheme Phase 1

Prepared for Limerick City and County Council
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1 Biodiversity Plan - Father Russell Road Cycle Scheme Phase 1

1.1 Introduction

MEC Ltd was commissioned by Limerick City and County Council (LCCC) to prepare a Biodiversity plan for the proposed Part 8 application for Father Russell Road Cycle Scheme Phase 1 in Limerick City.

1.1.1 Summary of proposed development

This cycle project is based on the recommendations of the Limerick Metropolitan Cycle Network Study (LMCNS) which identified Father Russell Road as part of the secondary cycle network with facilities linking between the primary cycle network at the R510 at Quinns Cross Roundabout and the R526 at St. Pauls Roundabout. The route is therefore part of the strategic urban and transport planning for Limerick and has been identified to provide safe, coherent, direct, attractive and comfortable facilities to encourage cycling as a sustainable transport option. The Sanctioning Authority is the National Transport Authority. An objective of the LCCC Southern Environs Local Area Plan notes the requirements of 'Smarter Travel' and that the Local Authority will continue to seek the development of cycle and pedestrian routes throughout the plan area.

The object of the Scheme is to provide high quality cycling facilities on sections of the L-1429 Father Russell Road in the south Limerick environs. The provision of the cycling facilities will involve an upgrade of the current road corridor to accommodate pedestrian, cycling and vehicular movements. This will be achieved by re-construction of the existing footpaths, construction of cycle tracks/lanes and narrowing of the existing road carriageway.

1.1.2 Supporting documentation

A screening statement for Appropriate Assessment and an Environmental Impact Assessment Screening report were prepared. In addition, an Arboricultural survey was undertaken and in early 2022 a bat roost potential survey was undertaken in relation to the existing trees on site. These reports all accompany this application.

1.1.3 Objective of the Biodiversity Plan

The overriding design intention is to improve the sense of space, create a variety of quality public spaces along existing residential developments to increase potential uses / improve the sense of ownership and to enhance the biodiversity in the area.

46 no. specimen trees will be planted at selected locations to improve the character of the site, provide additional screening and compensate for loss of existing trees, whilst bands of native hedgerows and swaths of wildflowers along existing tree lines will create a linear green buffer strip.

Site biodiversity will be improved through the use of native and non-invasive adaptive planting, including landscape planting measures to protect and enhance pollinators as set out in the All Ireland National Pollinator Plan 2015, through the provision of pollinator friendly planting, wildflower meadow and shade tolerant planting under trees and native hedges.

Bird and bat boxes will be installed on existing trees as part of this development to encourage nesting in the area and attract wildlife.

1.2 Existing ecological resources

The proposed development is located within an established urban area and the dominant habitat is reflective of the urban landuse, and is classified as Built Land and Artificial Surface (BL3), with a narrow strip of amenity grassland and occasional semi-mature tree planting.

1.2.1 Summary of bat roost evaluation

A bat roost potential evaluation survey was completed in February 2022 by Minogue Environmental Consultants. The survey was completed to identify the potential for trees and vegetation to be removed to allow construction of the Scheme to function as tree roost habitats for bats. The bat roost potential was assessed in accordance with the guidelines in Chapter 6 of the Bat Conservation Trust's Bat Surveys for Professional Ecologists (2016).

The survey noted that generally the trees to be removed have smooth bark, absence of cankers or knotholes and ivy growth and provide negligible potential to function as a hibernating roost for bats.

Figure 1.1 presents the site location and Figure 1.2 the landuse mapping (Corine) for the project area. Figure 1.3 presents the tree plan (trees for retention and removal)

Figure 1-1 Site location

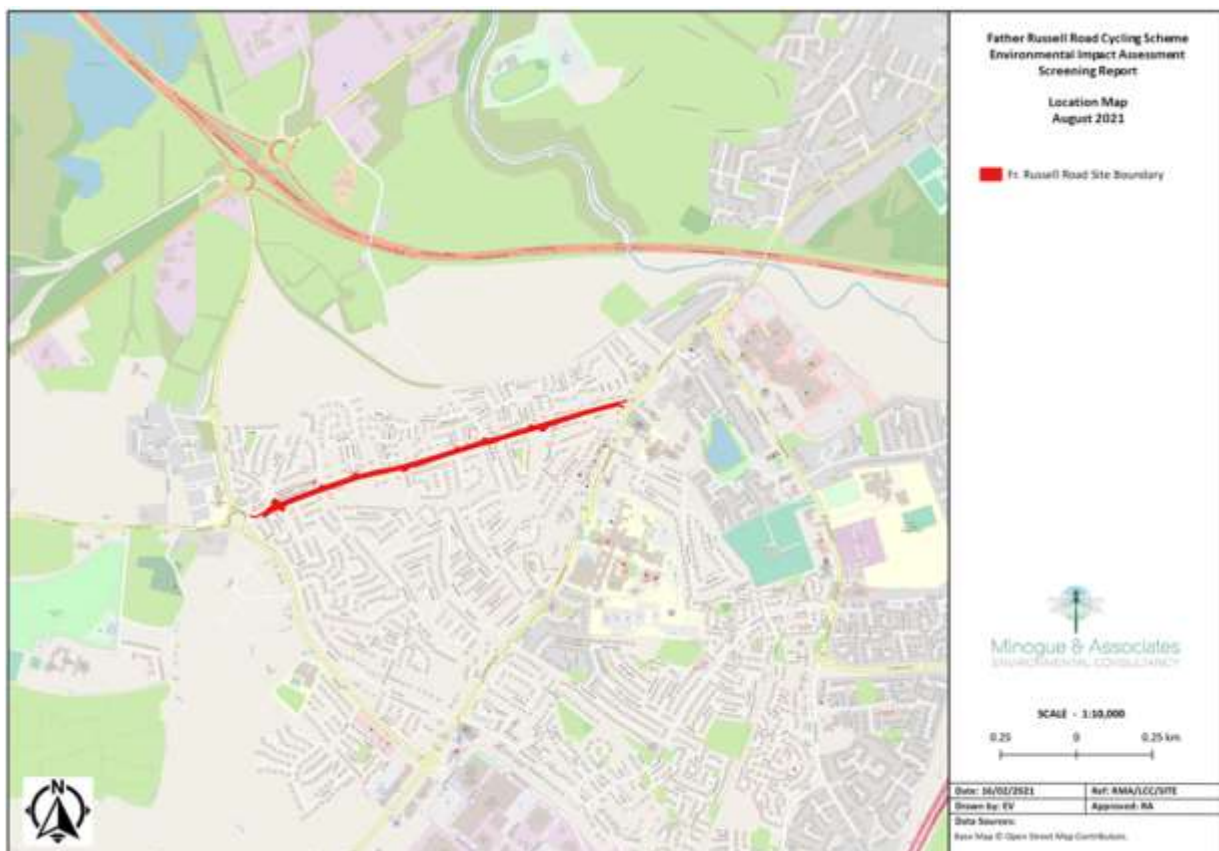


Figure 1-2 Existing landcover and use

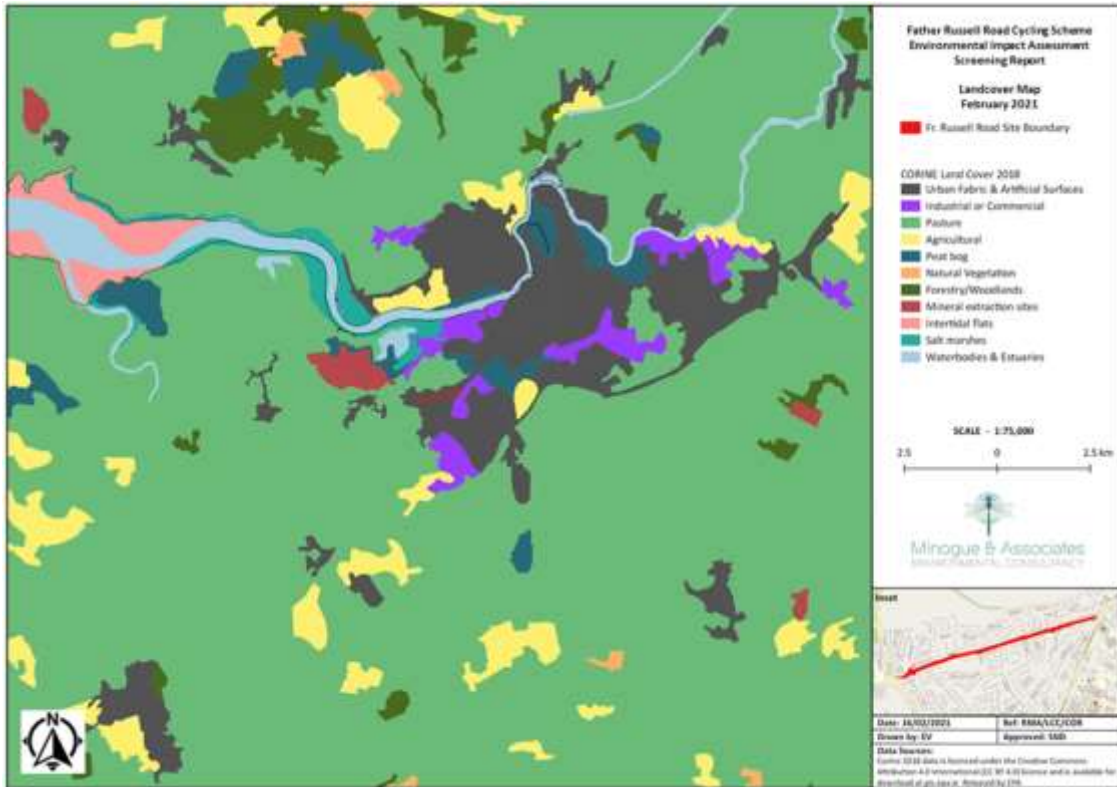


Figure 1-3 Trees for retention and removal



2 Mitigation Measures

2.1.1 Protection of breeding birds

Where feasible, vegetation (e.g. hedgerows, trees, scrub and grassland) will not be removed, between the 1st March and the 31st August, to avoid direct impacts on nesting birds. Where the construction programme does not allow this seasonal restriction to be observed, then these areas will be inspected by a suitably qualified ecologist for the presence of breeding birds prior to clearance. Areas found not to contain nests will be cleared within three days of the nest survey, otherwise repeat surveys will be required. Should nesting birds be encountered during surveys, the removal of vegetation will be required to be delayed until after the nesting season (1st March to 31st August inclusive).

2.1.2 Protection of bats

One tree for removal (tree no. 4589, mature lime) was identified during the bat roost evaluation as having low potential roost features. One lime tree has low potential roost features and no field signs of bats hibernating were identified. This tree has negligible potential to supporting hibernating bats and the absence of any field signs confirms this.

Following this inspection and the confirmation of the continued absence of roosting bats the Lime Tree should be felled according to the following procedure:

- Where a large machine such as an excavator is to be used to fell the two trees warning should be given to any roosting bats that may be present and not recorded by pushing the tree lightly 3 to 4 times with the excavator bucket. A pause of 30 seconds should be implemented between each push. The tree should then be pushed to the ground slowing and should remain in place until it has been inspected by the bat specialist.
- Where a chainsaw is to be used, limbs will be first cut and allowed to fall to the ground. For the felling of the main trunks ropes or winches will be put in place so that once the trunk is cut at the base it can be lowered slowly to the ground to thus avoiding any high impact a potential fatalities to any unidentified bats present in the ivy cover.

2.2 Construction Environmental Management Measures

The contract documents for the Scheme will include for the following:

- The Contractor shall establish and implement, during the execution and completion of the Works, an Environmental Operating Plan consistent with and analogous to the NRA "Guidelines for the Creation, Implementation and Maintenance of an Environmental Operating Plan".
- All construction and operations shall be carried out in accordance with the Control of Water Pollution from Linear Construction Projects. Technical Guidance (C648) (CIRIA 2006), Control of Water Pollution from Linear Construction Projects, Site Guide (C649) (CIRIA 2006), and in accordance with the Guidelines for the Crossing of Watercourses during the Construction of National Road Schemes (NRA, 2006).

3 Enhancement Measures

3.1 Landscape

Given the urban habitats present on the site the scheme offers the potential to integrate biodiversity and wildlife friendly planting measures. The landscape plans prepared for the scheme are provided under separate cover. Key to these planting species mix is the provision of native and pollinator friendly species including:

- Native hedgerow planting species including hawthorn (*Crataegus monogyna*), Guelder rose (*Viburnum opulus*), Blackthorn (*Prunus spinosa*)
- Specimen tree planting including oak (*Quercus robur*), and wildflower meadow planting from native Irish provenance.

Please see the accompanying landscape plans and detailed provision and maintenance will be provided at contract stage.

3.2 Provision of bird boxes and bat boxes

Proposed locations of bird and bat boxes are shown on the accompanying landscape plans.

Nest boxes should be placed securely on a tall tree, as high as possible (2-5m from the ground) away from easy access to predators (e.g. cats), facing north-east, and in a sheltered spot. Different nest boxes have different sized holes to suit particular species. Nest boxes made from woodcrete rather than timber have greater durability and lifespan and are therefore recommended for use.

Bat habitat will also be enhanced through the provision of bat boxes within the proposed development footprint. Bat boxes will be similar to the general purpose Schwegler 2F type and placed at a minimum height of 3m on mature trees with a variety of different aspects. This will increase the likelihood of bat boxes being used at different times of the year.

An appropriately qualified ecologist should supervise the installation of the bird boxes and bat boxes.

3.3 Monitoring

Monitoring of the bird nest boxes will be undertaken by an experienced ecologist/ornithologist during Years 1 to 3 and 5 of the operation phase.

The monitoring will be measured by the number of possible, probable or confirmed pairs and the number of different breeding species recorded at the nest boxes on mature trees.

Roost emergence and return surveys at the box locations during the months of June to July

Surveys of pollinator species recorded over standard time period in May-July at wildflower meadows, hedgerow and vegetated swales.

3.4 Conclusion

This Biodiversity Enhancement Plan outlines how the development contributes to the protection and enhancement of existing green infrastructure within the proposed development through maintenance of existing important features such as hedgerow and treeline and through the provision of measures to further enhance biodiversity and green infrastructure throughout the site. These measures include native tree, hedgerow and woodland planting and the provision of areas of wildflower meadow containing pollinator friendly species. The provision of nesting bird boxes and bat boxes, along with monitoring of same will also provide additional nesting and roosting features for wildlife within the area.