

2023/
2024

Limerick City Greenway (UL to Annacotty)

Winter Bird Survey

RYAN ■ HANLEY

1 Galway Business Park, Dangan, Galway H91 A3EF
Floor 5 Jervis House, Jervis Street, Dublin 1 D01 E3W9
Unit 1203, Building 1000, Gateway Business Park, New Mallow Road, Cork
Innovation House, Moneen Road, Castlebar, Co. Mayo F23 E400

Client	Limerick City & County Council
Project No.	2535
Project Title	Limerick City Greenway (UL to Annacotty)
Report Title	Winter Bird Survey 2023/2024

Rev.	Status	Author	Reviewed By	Approved By	Issue Date
0	Draft for Client review	BQ	TS	BL	23/07/2024

1 INTRODUCTION..... 1

1.1 Project Description 1

1.2 Aims of the Proposed Survey..... 1

1.3 Brief Description of the Study Site..... 1

2 METHODOLOGY 3

2.1.1 Bird Surveys 3

2.1.2 Conservation Status of Bird Species..... 3

2.1.3 Zone of Influence 4

3 RESULTS 5

3.1 Birds in the Existing Environment 5

3.2 Summary and Conclusions 13

4 REFERENCES 14

APPENDIX A – WBS Field Data 15

Winter Bird Survey 2023/2024

1 INTRODUCTION

Winter bird surveys were conducted within the 2023/2024 wintering bird season, in addition to the surveys that were carried out in 2021/2022, due to a change in the proposed Limerick City Greenway route. These surveys were undertaken to assess the presence, pattern of usage and current conservation status of wintering bird species found within and in the vicinity of the new route (**Figure 3-1**). These surveys were also used to evaluate the importance and potential ecological significance of the study area and its environs to support wintering avifauna.

1.1 Project Description

The Limerick City Greenway (UL to Annacotty) forms part of a larger cycleway plan, the proposed Castletroy Cycle Network as outlined in the Limerick Metropolitan Cycle Network Study (LMCNS) 2025. The focus of the LMCNS is to promote cycling as a realistic choice as a mode of transport in the Limerick Metropolitan Area, making it an attractive location for cyclists of all ages and abilities by proposing the development of a consistent, clear, and continuous network of urban and suburban cycle networks throughout the area.

1.2 Aims of the Proposed Survey

- To survey the new routes added to the proposed UL Greenway and,
- To record quantitative spatial data on wintering birds within the footprint, environs and Zone of Influence of the proposed Limerick City Greenway (UL to Annacotty), and
- To map bird species number and distribution, foraging, resting and roosting areas/activity.

1.3 Brief Description of the Study Site

The Limerick City Greenway (UL to Annacotty) Project will form an extension to the already constructed Limerick Smarter Travel, Route 2, which involved the upgrade of an existing pathway, 1.5km in length between University of Limerick and the Guinness Bridge along the bank of the River Shannon which connects directly into the city centre.

The proposed Greenway route will continue from the existing Limerick Smarter Travel, Route 2 west of the River Groody bridge and extend along an existing section of paved and gravel pathway along the River Shannon, providing for access to and from the University of Limerick and the National Technology Park in Castletroy. The proposed Greenway will connect along University Road and McLoughlin Road via (existing Active Travel infrastructure) to Plassey Park Road through Annacotty Village and ends at Cappamore Junction as its eastern extent.

The Study Area covers approximately 5.8 km² in the Counties of Limerick and Clare encompassing the main UL campus, the NTP, sections of the Dublin Road (R445) and northern banks of the Lower River Shannon, including the UL campus located in Cappavilla, Co. Clare.

The Study Area is situated within the Lower Shannon River Catchment, with two main water bodies present including the Lower River Shannon which traverses through the centre of the Study Area and Mulkear River to the east of the Study Area. A small section of the Blackwater (Clare) river is present to the north of the Study Area near the Cappavilla UL campus (See **Figure 1.1** below).

Winter Bird Survey 2023/2024

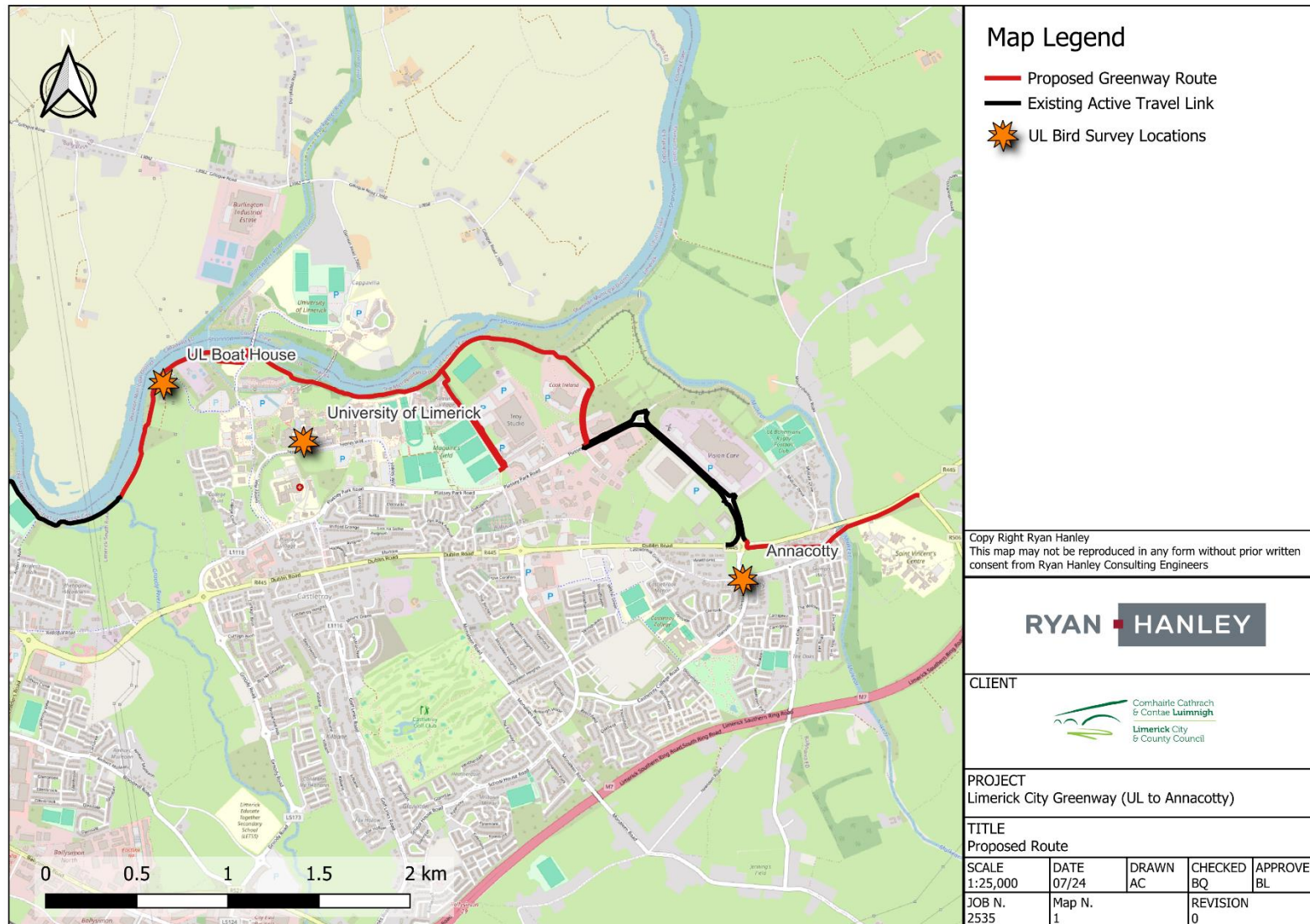


Figure 1-1: Study area and extent of proposed greenway

Winter Bird Survey 2023/2024

2 METHODOLOGY

2.1.1 Bird Surveys

Bird Survey methodology undertaken for the Limerick City Greenway (UL to Annacotty) Winter Bird Surveys included spot-counts while walking the new route transects. Two main areas were surveyed, the new route to the west of the UL Boat House and the bridge in Annacotty. The bird surveys were conducted in accordance with the methodology described by Bibby *et al.* (2000).

Six survey visits were conducted: one survey per month from October 2023 to March 2024, between 08.00 – 17.00 hrs, during suitable weather conditions (Bibby *et al.* 2000). Survey dates are provided in **Table 2.1**.

Five survey visits were completed between November 2021 and March 2022, by Delichon Ecology and results are discussed and concluded within the Draft Wintering Bird Survey report (Delichon Ecology, 2022).

The survey locations are presented in **Figure 3.1**.

Table 2-1: Winter bird survey dates

Survey Date	Survey Effort	Survey Conditions
October 24th 2023	Wintering Bird Survey – spot counts and targeted site walkover surveys	Dry, 90% cloud cover. 8 degrees Celsius. Good visibility. No rain.
November 14th 2023	Wintering Bird Survey – spot counts and targeted site walkover surveys	Clear, 90% cloud cover. 6 degrees Celsius. Good visibility. Occasional showers.
December 13th 2023	Wintering Bird Survey – spot counts and targeted site walkover surveys	Clear, 70% cloud cover. 7 degrees Celsius. Good visibility. No rain.
January 10th 2024	Wintering Bird Survey – spot counts and targeted site walkover surveys	Cold and icy with 50% cloud cover. 1 degrees Celsius. Good visibility. No rain.
February 27th 2024	Wintering Bird Survey – spot counts and targeted site walkover surveys	Clear, 95% cloud cover. 6 degrees Celsius. Good visibility. Occasional showers/misty rain.
March 21st 2024	Wintering Bird Survey – spot counts and targeted site walkover surveys	Dry, 80% cloud cover. 7 degrees Celsius. Good visibility. No rain.

All bird species encountered (seen or heard) during the surveys were recorded, together with the abundance of each species. Birds flying over the site were also included as part of the observations. Casual records of birds encountered during the spot counts and field walkovers, but outside of dedicated survey period were also noted.

2.1.2 Conservation Status of Bird Species

The conservation status of bird species recorded during the surveys and scoping exercise was assessed with reference to the EU Birds Directive (2009/147/EC) Annex I list and Birds of Conservation Concern in Ireland (BoCCI), (Gilbert & Lewis, 2021)¹. For the BoCCI list, Red-listed species are of high conservation concern in Ireland, Amber-listed species are considered of medium conservation concern, while Green-listed species are not of conservation concern in Ireland at present. Bird species listed on Annex I of the EU Birds Directive have been identified as requiring special conservation measures in relation to their habitats and have been listed due to risk of extinction; vulnerability to specific changes in their habitat and due to their relatively small population size or restricted distribution². The Conservation Status of each bird species recorded during the Winter Bird Surveys 2023/2024 can be seen in **Appendix A**.

¹ Gilbert G, Stanbury A and Lewis L (2021), “Birds of Conservation Concern in Ireland 2020 –2026”. Irish Birds 9: 523—544

² <https://www.npws.ie/directive-2009147ec-conservation-wild-birds-codified-version>

Winter Bird Survey 2023/2024

2.1.3 Zone of Influence

The current guidance on ecological assessments (CIEEM, 2017) recommends that all ecological features that occur within a Zone of Influence (Zol) for a proposed development are investigated.

The Zol for these wintering bird surveys are as follows:

- areas directly within the proposed greenway;
- areas adjoining and in proximity to the proposed greenway providing suitable wintering avifaunal habitat;
- areas adjoining the proposed greenway footprint subject to indirect impacts (such as disturbance impacts) from the proposed works;
- areas which will be temporarily affected during construction;
- areas where there is a risk of pollution and noise disturbance during construction and/or operation.

The Zol is variable depending on the ecological receptors affected. Given the extent of the proposed greenway study area (**Figure 3-1**), in this case the Zol is the footprint of the proposed greenway and immediately adjoining and surrounding lands (Delichon Ecology, 2022).

Winter Bird Survey 2023/2024

3 RESULTS

3.1 Birds in the Existing Environment

The wintering birds recorded during the 2023/2024 surveys were typical species found within the UL Greenway environs. A brief analysis of bird activity at the survey locations within the study area is provided below. Please refer to **Figure 3-2** to **Figure 3-7** which displays the extent and location of the survey sections.

Spot-count/Transect 1 – This transect included the new route area located west of the UL Boat house, commencing in a south-westerly direction until the Groody River bridge as well as following the pathway east of the UL boat house, towards University Bridge (See **Figure 3-1**). The transects follow the existing pathway, which is surrounded by grassy verges, which have been dominated by IAPS, treelines, woodland and riverine habitats surrounding the River Shannon.

Bird activity within this area included passerine birds (Blue tit, Great tit, Coal tit, Long-tailed tit, Treecreeper, Blackbird, Chaffinch, Song thrush, Wren, Pied wagtail and Robin) and corvid species using the adjacent mixed broadleaved woodland and treeline habitats. Kingfisher was also recorded in March, within the Groody River (See **Figure 3-7**). The main channel of the River Shannon supported consistent occurrences of the following riverine, aquatic and semi-aquatic species including Greylag Geese, Mallard, Cormorant, Black-headed Gull, Herring Gull, Water rail, Grey wagtail, Curlew and Mute Swan. Greylag Geese utilise improved grassland fields on the northern bank of the river, north-west of UL boathouse. Gull species, mainly the Black-headed Gull utilise the main channel of the River Shannon throughout the survey season, using built structures and the main channel of the river for roosting and foraging respectively. The Grey wagtail utilised the main river channel as well as the built structures. Mallard, Cormorant and Mute Swan utilised the main channel and the fringing habitats within the river channel margins in small numbers. Mallards were mainly recorded within the flooded treelines. One singular Water rail was also recorded within this flooded habitat. A flock of Curlew (n=46) were recorded utilising the main river channel and the agricultural fields in January 2024 (See **Figure 3-5**).

Spot-count/Transect 2 – This site included the Annacotty Heron's bridge, which crossed the Mulkear river and its immediate surroundings (See **Figure 3-1**). Some passerines (Wren, Robin, Blackbird, Song thrush, Blue tit, Pied wagtail, Great tit and Chaffinch) as well as some corvid species, were recorded utilising the surrounding treelines and built structures. While the Grey heron and Cormorant were recorded utilising the main river channel.

The rest of the proposed greenway route was recorded by Delichon Ecology in 2021/2022 and the results can be found in the Draft Wintering Bird Survey Report. (Delichon Ecology, 2022)

Winter Bird Survey 2023/2024

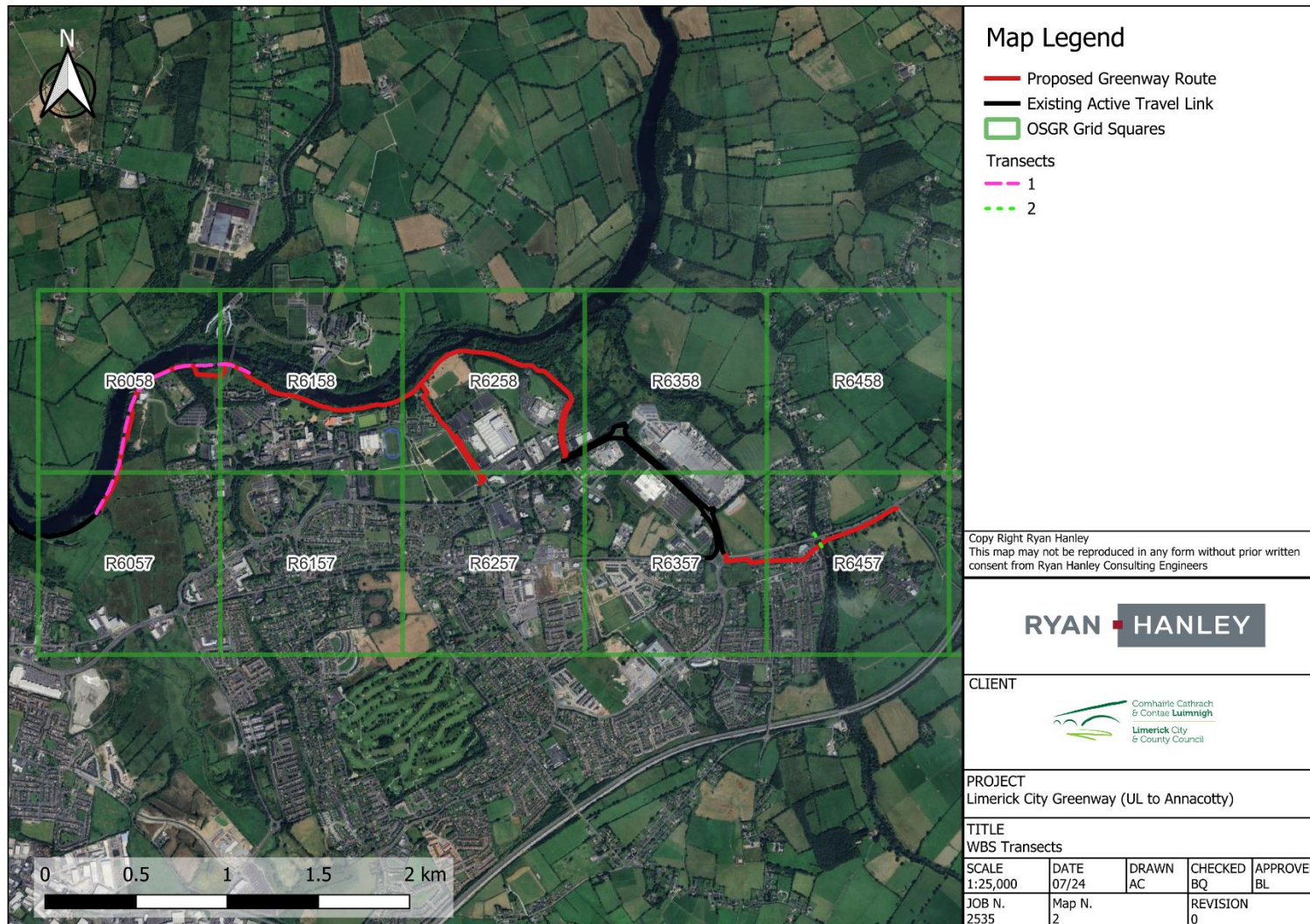


Figure 3-1: Winter Bird Survey Spot-count/Transect Locations

Winter Bird Survey 2023/2024

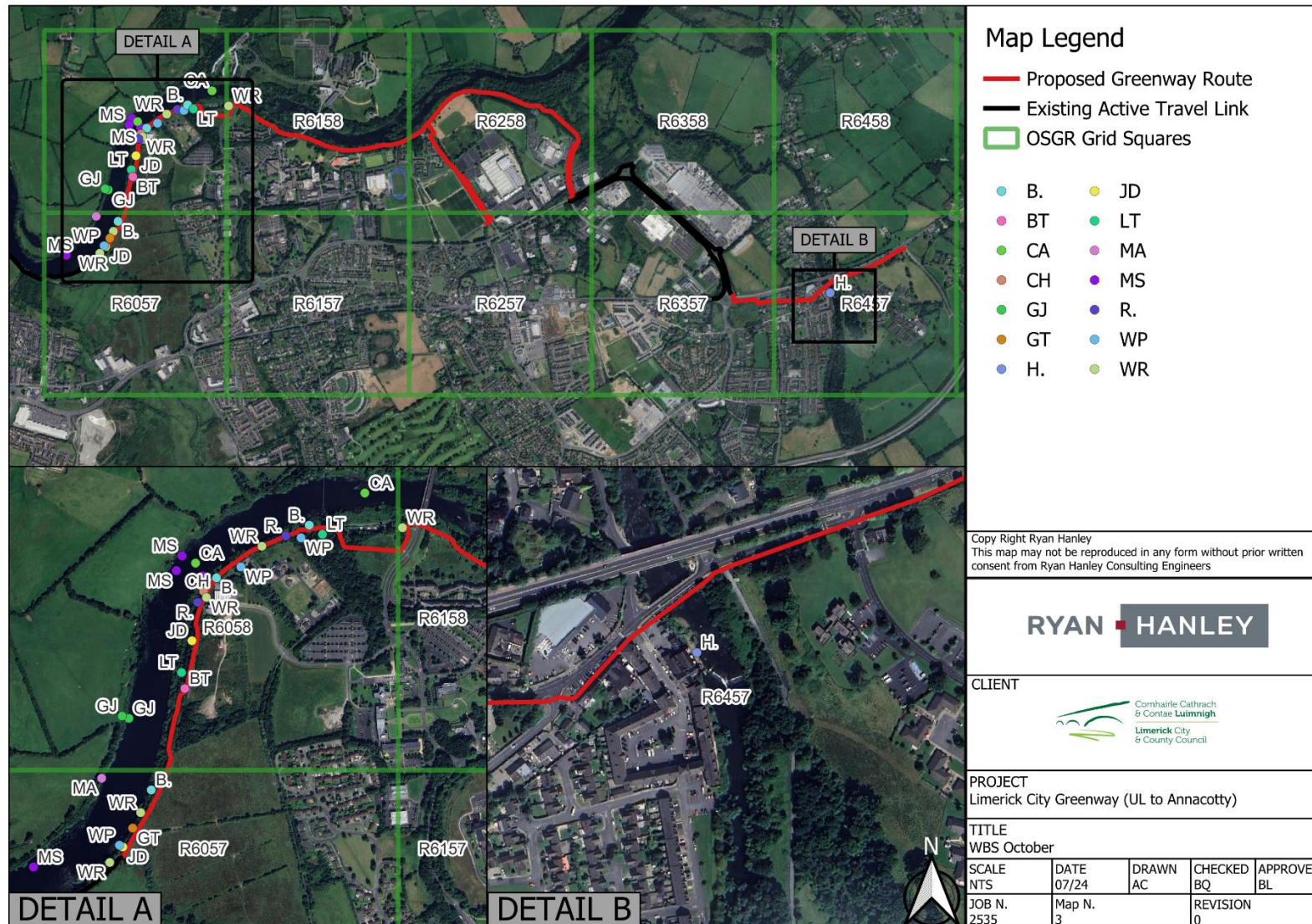


Figure 3-2: Winter Bird Survey October 2023 results

Winter Bird Survey 2023/2024

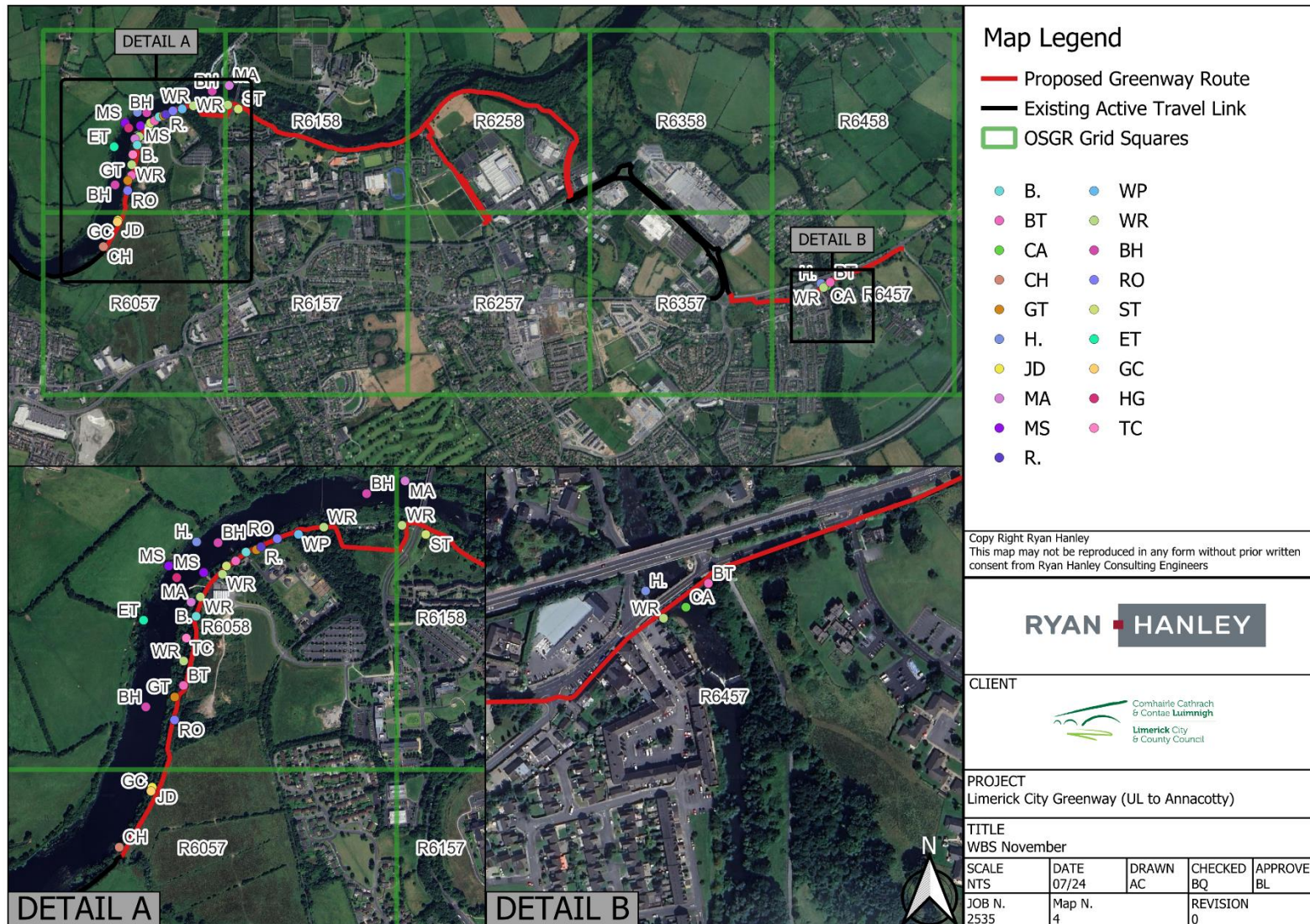


Figure 3-3: Winter Bird Survey November 2023 results

Winter Bird Survey 2023/2024

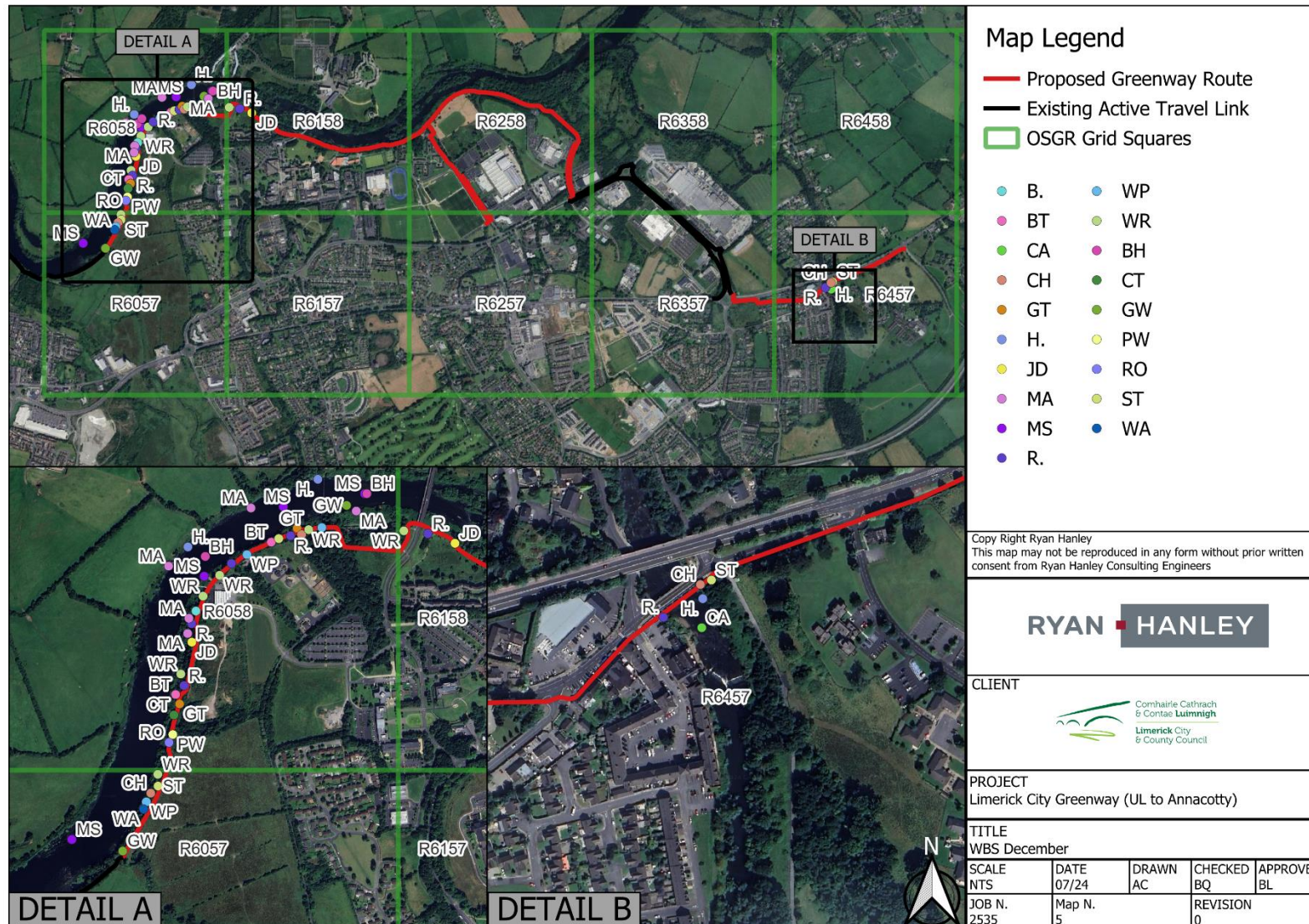


Figure 3-4: Winter Bird Survey December 2023 results

Winter Bird Survey 2023/2024

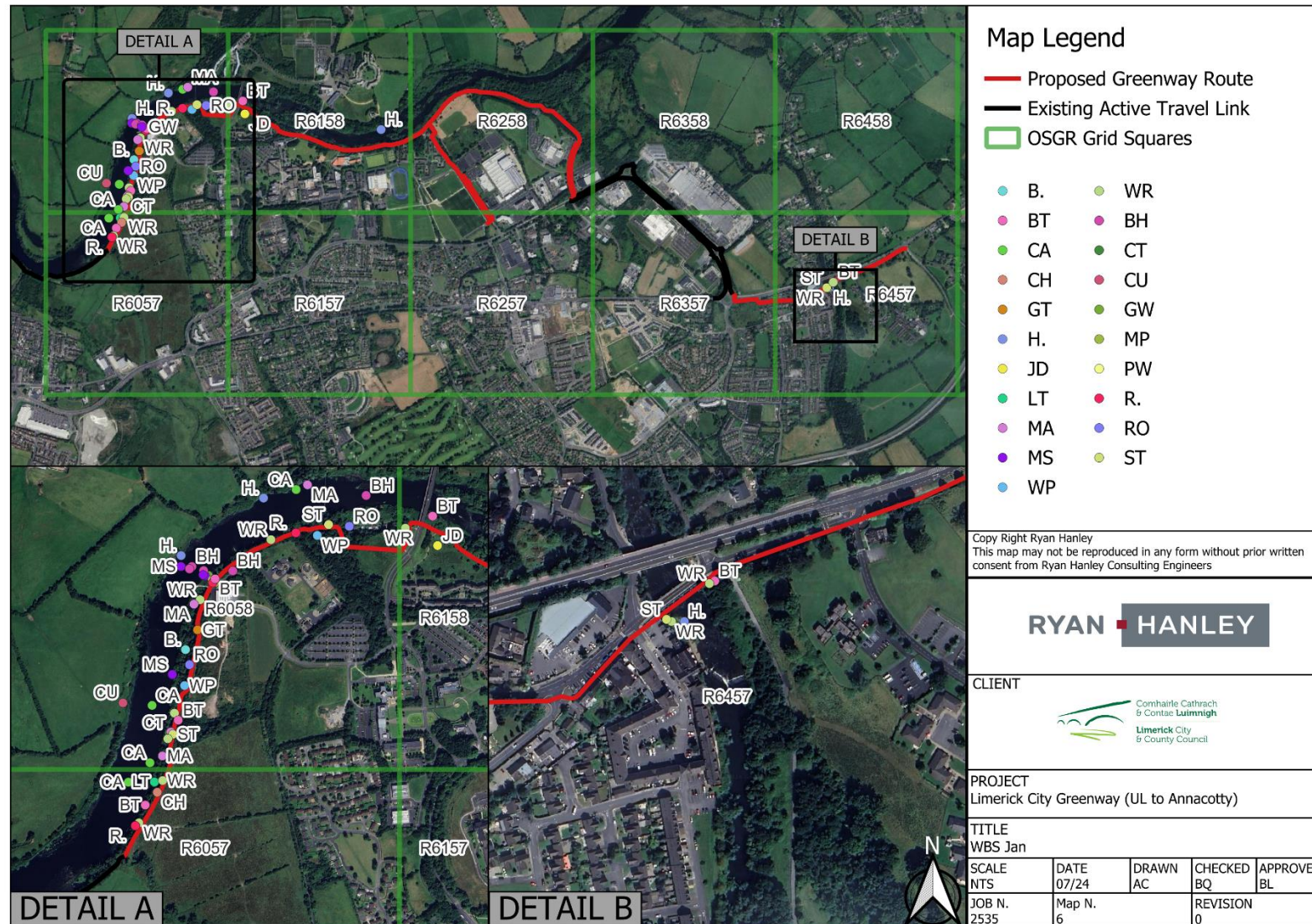


Figure 3-5: Winter Bird Survey January 2024 results

Winter Bird Survey 2023/2024

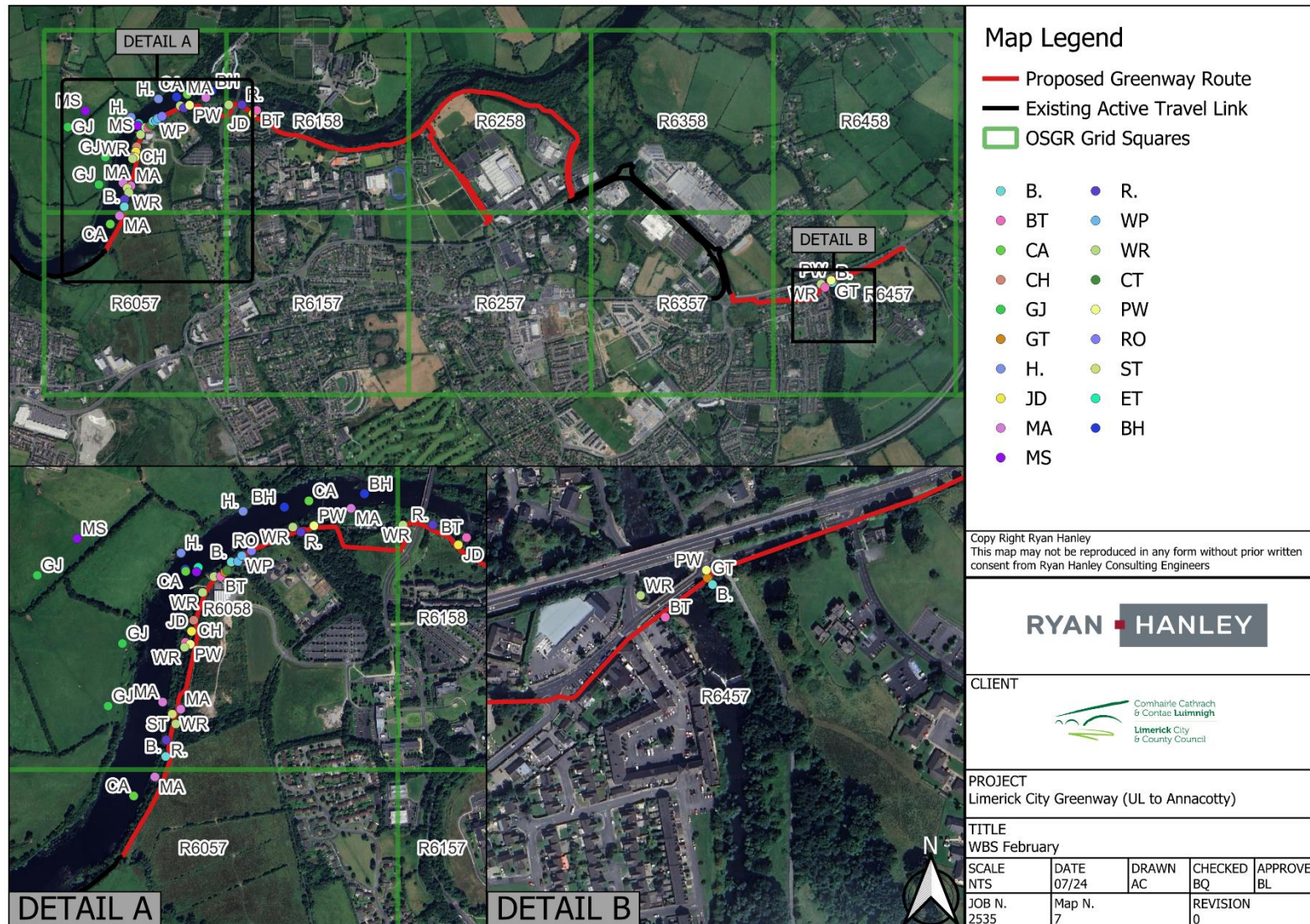


Figure 3-6: Winter Bird Survey February 2024 results

Winter Bird Survey 2023/2024

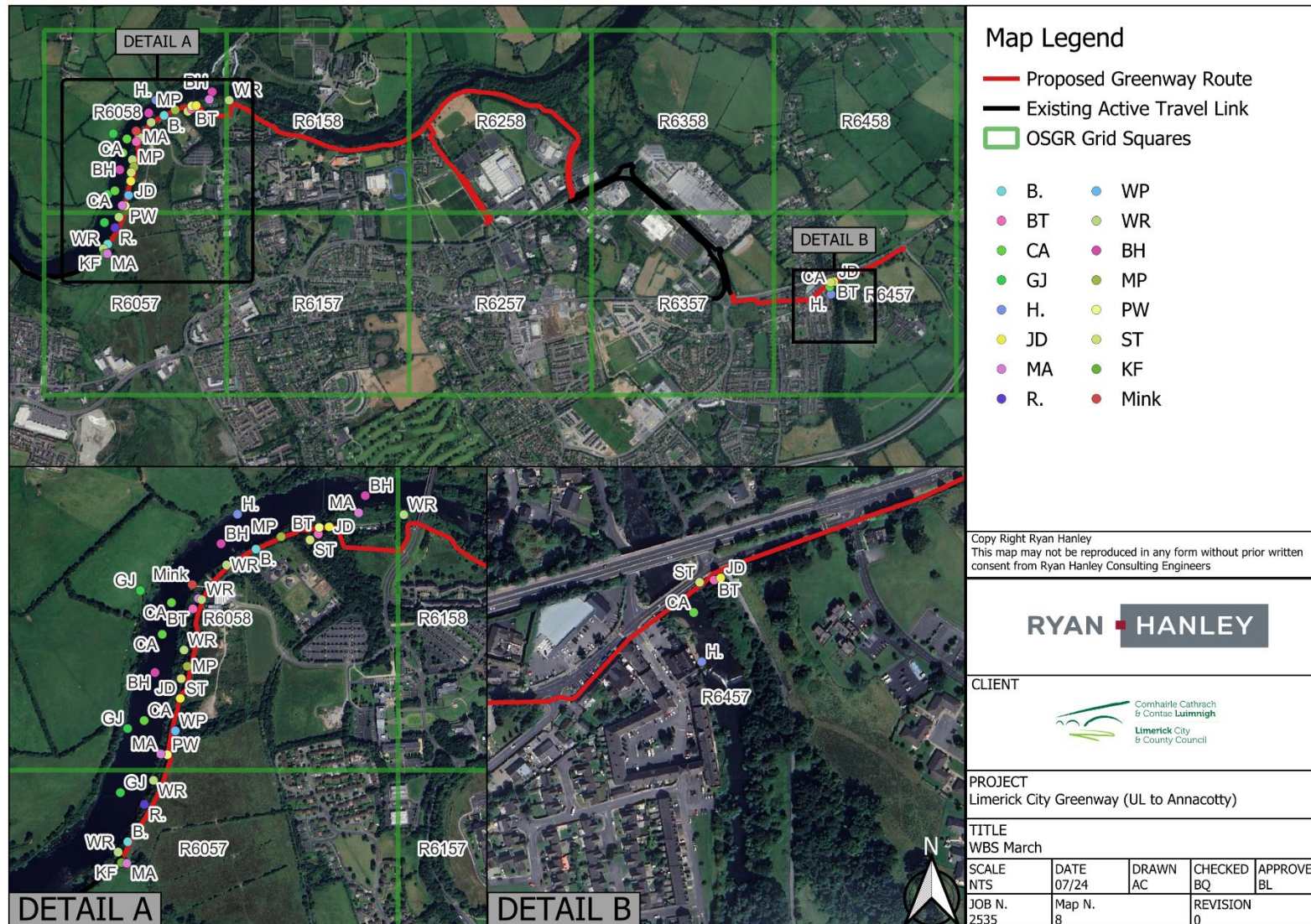


Figure 3-7: Winter Bird Survey March 2024 results

Winter Bird Survey 2023/2024

3.2 Summary and Conclusions

The new route sections of the proposed greenway are located adjacent to the River Shannon and the Mulkear River. Both sections include riverine habitats, with Transect 2 being located within a more urban environment while Transect 1 is located along an existing pathway surrounded by treelines and agricultural fields. All species recorded and their conservation status can be seen in **Appendix A – Field Data**.

Mute swan, Cormorant, Greylag geese, Mallard, Black-headed gulls and Grey herons were the most consistent wintering species recorded throughout the winter bird survey season. All of which could be found within Transect 1, while Transect 2 only recorded the Grey heron and Cormorants.

Passerine species were also abundant throughout the winter bird survey season, including the Wren, Blue tit, Great tit, Long-tailed tit, Coal tit, Song thrush, Blackbird, Chaffinch, Goldcrest, Pied wagtail, Wood pigeon and corvid species.

Amber listed species identified during the winter bird surveys included Mute swan, Mallard, Cormorant, Black-headed gull, Herring gull, Greylag goose, Goldcrest and Kingfisher. Mute Swan was recorded within Transect 1 from October to March. The Mute swan is largely sedentary, and the winter and breeding distributions are very similar (Balmer *et al*, 2013), which is true in this case based on the Breeding Bird Report 2023 (Ryan Hanley, 2024). Greylag geese were recorded with Transect 1 in October and then again in February and March. These birds were mainly recorded roosting and foraging in lowland agricultural grasslands adjacent to the river or within the River Shannon itself. These birds have also been recorded during the breeding season also. Mallards were recorded throughout the winter survey season also, mainly roosting within the flooded banks and treeline of the River Shannon and within the River Shannon itself. Cormorants were again recorded each month of the winter bird survey season. They were recorded foraging within and/or flying over the River Shannon and the Mulkear river. Black-headed gull were recorded within Transect 1 from November to March. Larger numbers were found roosting with the River Shannon as well as on built structures near the river. They were also recorded flying up and downstream of the River Shannon in smaller numbers. One single Herring gull was recorded within Transect 1 in October. Kingfisher was recorded withing the Groody River in Transect 1 in March 2023. It was also noted here in June 2024 (during a bat survey) in the same location.

Red listed species identified during the winter bird surveys included the Grey wagtail and Curlew. Grey wagtail was recorded in December 2023 and January 2024 within Transect 1, flying and foraging near the River Shannon. Curlew were identified along the River Shannon and its adjoining agricultural lands, on one occasion over the wintering period (January 2024). It is likely that they utilise this area intermittently and opportunistically for foraging and roosting purposes.

Results for the rest of the proposed UL Greenway route can be found within the University of Limerick Wintering Bird Survey report (Delichon Ecology, 2022).

4 REFERENCES

- Balmer, D.E., Gillings, S., Caffrey, B.J., Swann, R.L., Downie, I.S. & Fuller, R.J. 2013. *Bird Atlas 2007-11: The breeding and wintering birds of Britain and Ireland*. BTO Books, Thetford.
- Bibby, C., Burgess, N., Hill, D & Mustoe, S. (2000). *Bird Census Techniques: Second Edition*. Academic Press: London, United Kingdom
- BWI, 2012. CBS Manual - Guidelines for Countryside Bird Survey participants, Kilcoole, Wicklow: Birdwatch Ireland in conjunction with the National Parks and Wildlife Service .
- Colhoun., K., Cummins, S., 2013. Birds of Conservation Concern in Ireland. *Irish birds* 9; 523- 544.
- Crowe, O. (2005) *Ireland's Wetlands and their Waterbirds: Status and Distribution*. BirdWatch Ireland: Kilcoole, Co. Wicklow.
- Delichon Ecology. (2022) Draft University of Limerick Winter Bird Survey 2022.
- Fossitt, J. (2000) *A Guide to Habitats in Ireland*. The Heritage Council, Kilkenny.
- Gilbert G, Stanbury A and Lewis L (2021), "Birds of Conservation Concern in Ireland 2020 –2026". *Irish Birds* 9: 523—544
- Gilbert, G., Gibbons, D.W., and Evans J., (1998). *Bird Monitoring Methods – A manual for key UK species*. RSPB

APPENDIX A – WBS Field Data