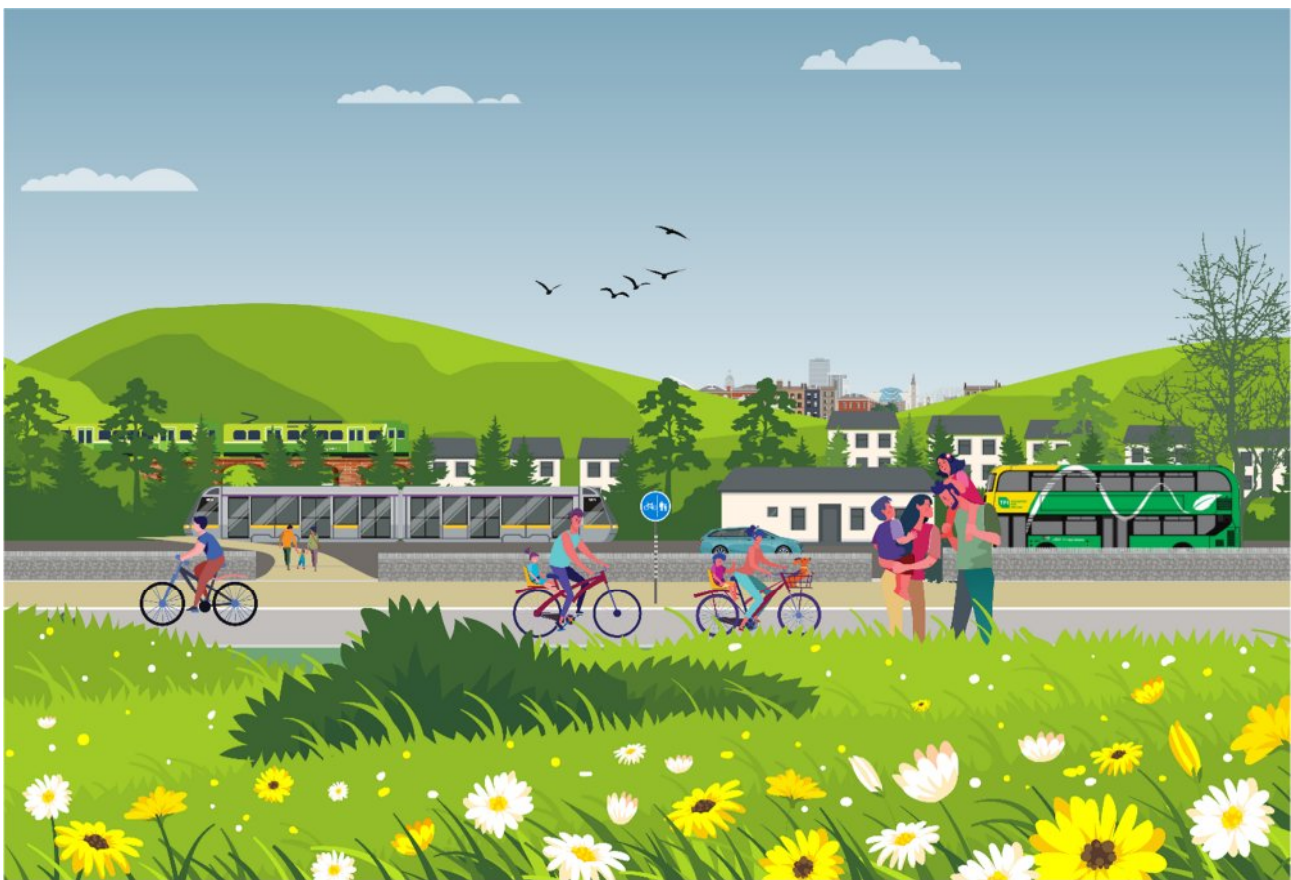


**Dún Laoghaire-Rathdown County Council**

# Infrastructure Capacity Assessment Study for Old Connaught and Rathmichael

## Part 3 - Options Development and Assessment Report



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This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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## Disclaimer

All information contained within this ICAS Part 3 Report is point in time and should not be relied on for any purpose other than for which it was prepared, that being to inform the ICAS Study. The information contained herewith is preliminary in nature and indicative only. All information may be subject to further consideration and assessment.

# 1. Introduction

## 1.1 Purpose of the ICAS Study

Arup was commissioned by Dún Laoghaire-Rathdown County Council (DLRCC or “the County”) to complete a high-level strategic Infrastructural Capacity Assessment Study (ICAS) to inform the proposed Old Connaught and Rathmichael Local Area Plans (LAP) in the southeast area of the County.

The purpose of the ICAS is to establish the existing context and development infrastructure capacities in the two proposed LAP areas and to identify their constraints, challenges, and opportunities in the context of the growth projections in the DLRCC 2022-2028 County Development Plan. The aim is to identify the proposed high level strategic enabling infrastructure to facilitate plan-led development.

The ultimate deliverable of the ICAS will be an integrated infrastructure delivery plan that enables the achievement of the development ambitions within the two LAP areas. This plan will provide a roadmap for the phased delivery of infrastructure linked to development thresholds within the two LAP areas.

This report represents the Options Development and Assessment Report which represents a significant element of the final ICAS Report.

The overall study methodology, based on the Area Based Transport Assessment (ABTA) approach is shown in Figure 1-1 to provide context. The Options Development and Assessment Report forms part of Part 2 and 3 of the study. Part 2b includes Options Development and Part 3 the Options Assessment. The deliverable for these two parts is provided as a single report.

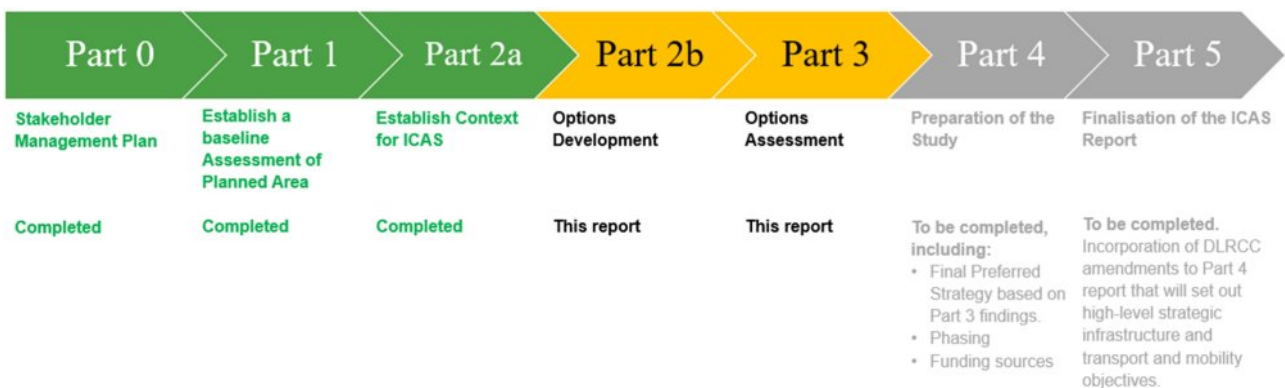


Figure 1-1 Study Methodology

## 1.2 Purpose and Scope of the Options Development and Assessment Report

The purpose of this report is to outline options for the provision of infrastructure required to develop sustainable communities in each of the LAP areas. The report also assesses the identified options and recommends preferred options which is incorporated into a settlement strategy which together represent the overall emerging outcome of the Study. The emerging outcome will be further developed in relation to Phasing, Sequencing and Funding and Implementation in Part 4 of the Study. The Part 3 and 4 deliverables will be finalised to align with the Draft LAPs in Part 5 of the Study.

## 1.3 Methodology

### 1.3.1 Overview

Figure 1-2 outlines the proposed options development and assessment methodology which is based on the Parts 2b and 3 of the ABTA guidance developed by TII and the NTA.

The ABTA process is intended for the development of local transportation plans and to identify transportation infrastructure. The availability of guidance for other non-transport related infrastructure, to support the development of sustainable communities, is variable, and therefore a hybrid approach is proposed. The proposed methodology will be twofold consisting of the ABTA process for the transportation components of the study and the ICAS process for the other infrastructure requirements. Transportation is the most impactful and complex infrastructural element and represents a key element of the framework for development. This report therefore considers the transportation elements first to establish an initial infrastructure framework onto which additional layers are added to build a coherent and sustainable settlement structure for the LAP areas. The ICAS addresses a variety of other infrastructural elements including green infrastructure, biodiversity, open spaces and parks, water and wastewater, drainage, social and affordable housing, sustainable community facilities, ESB connections and telecommunications. These layers are built up to arrive at a multidisciplinary infrastructure framework onto which a settlement strategy can be developed.

The ABTA methodology involves an initial options development process, for which transport options are developed. These ‘Long List’ transport options and high-level land use scenarios are screened to form a short list of options which are packaged into scenarios that seek to address the transportation needs of the LAP areas. These transportation packages are then assessed using a Multi-Criteria Assessment (MCA) process to identify an emerging preferred transport strategy.

From a ICAS perspective, the starting point in establishing a framework for the development of a settlement strategy is by considering various layers of features including topography, water bodies, flood risk areas, green space and environmentally sensitive areas, heritage and conservation and air and noise pollution together with existing and planned infrastructure including the existing urban structure, transportation infrastructure, potable water, wastewater, surface water and utilities. Taking this framework into account options are developed and evaluated to satisfy infrastructure requirements to develop sustainable communities in the LAP areas for transport infrastructure (via the ABTA), green infrastructure and biodiversity, water and wastewater, surface water drainage, housing provision and creating sustainable communities. The process of options development for each of the infrastructural elements were carried out by considering the policy context, an evaluation of requirements, development of options and an evaluation to arrive at a preferred option. Not all of the infrastructural elements necessarily have a range of options to evaluate as the preferred option in such cases would appear evident.

Both the ABTA and ICAS processes then merge to develop a preferred spatial settlement strategy where the relevant geographical and environmental features, existing and planned infrastructure and the infrastructural requirements to develop sustainable communities in the LAP areas are amalgamated into a high-level masterplan. The emerging masterplan was reviewed in terms of its compliance with KPIs previously set for the Study in the Positions Report.

The report is concluded by outlining the Emerging Preferred ICAS infrastructure strategy which outlines all infrastructural elements that are required to establish sustainable communities within the LAP areas. The phasing and implementation of these elements will be further considered and developed in the following Part 4: Implementation Plan of the study.

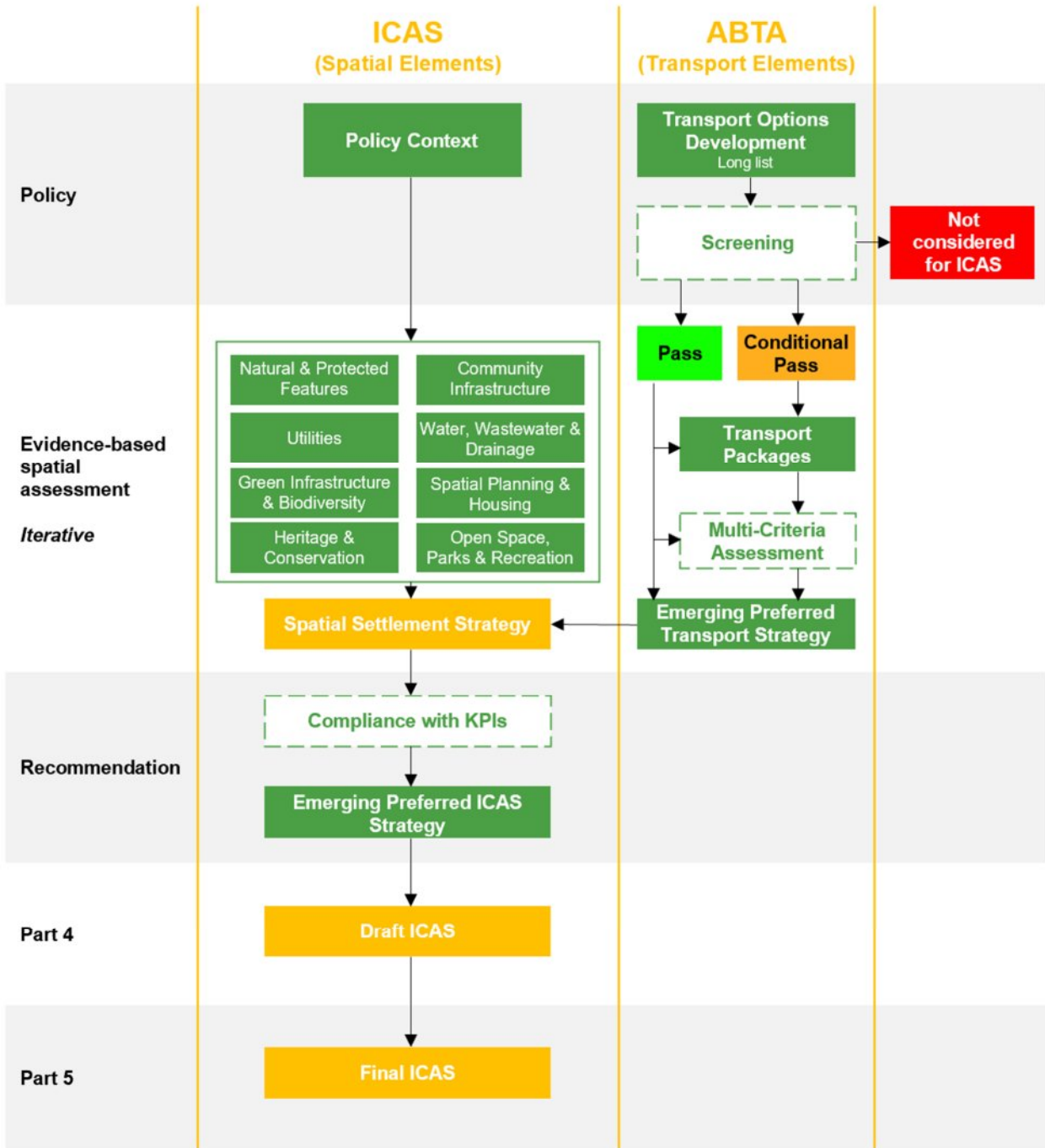


Figure 1-2 ICAS and ABTA Methodology - Options Development and Assessment

## 1.4 Report Structure

The structure of the report follows the methodology set out above and is divided into six chapters:

- Chapter 1 sets out the introduction to this report.
- Chapter 2 outlines spatial features to understand the physical constraints that need to be taken into account to form a basis for settlement development. This chapter provides an overview of the topography, water bodies, environmentally sensitive areas, flood risk areas, heritage and air and noise pollution. It also outlines spatial considerations in the form of existing and planned infrastructure including existing urban structure and roads, social and affordable housing requirements, transportation infrastructure reserves, available and planned water and wastewater infrastructure, surface water requirements and existing ESB and telecommunication infrastructure.
- Chapter 3 presents the Infrastructural Requirements of the LAP areas, which includes the approach taken to the options development and assessment in the following order:
  - Transportation infrastructure
  - Green infrastructure, biodiversity, open space and parks
  - Water and wastewater infrastructure
  - Surface water infrastructure
  - Social and affordable housing
  - Community infrastructure
  - Energy and telecommunication infrastructure.
- Chapter 4 presents the Preliminary Settlement Strategy which is based on the spatial considerations including geographical and environmental constraints, existing and planned infrastructure together with the infrastructural requirements to accommodate sustainable community development.
- Chapter 5 presents the Plan Performance Assessment which outlines the compliance of the preferred settlement strategy against the KPIs identified in the Position Report.
- The final chapter provides an overview of the Strategic Enabling Infrastructure Requirements.

Part 4 of the ICAS follows the outcome of the options development and assessment stage. The Part 4 report will examine the strategic enabling infrastructure requirements, looking at phasing, implementation, and funding.



## 2. Spatial Features of LAP area

### 2.1 Geographical and Environmental Features

The two LAP areas have a diverse range of natural and environmental features that need to be taken into consideration when developing the future settlement and infrastructure morphology.

#### 2.1.1 Topography

The elevation of the land within the Old Connaught LAP generally rises when moving from east to west. The lands within the vicinity of Old Connaught village have the lowest elevation at around 22m above sea level. However, it rises to 47m above sea level within the vicinity of Ferndale Road and rises further to more than 90m at its most western border.

While the general gradient of the land with Old Connaught varies from 1.7% to 10%, it becomes steeper towards the west and reduces the suitability of land for development in both LAP areas, as shown in Figure 2-1. In Old Connaught, the gradient of the lands located to the west of the Allies River Road is steeper.

The elevation of the land within the Rathmichael LAP generally rises when moving from northeast to southwest. The lands to the very north of the LAP within the Brides Glen valley have the lowest elevation at around 17m above sea level. However, it quickly rises to above 30m in the area around Mullinastill Road. The land continues to rise more gradually to the south to about 45m, and rising more quickly to the west into Carrickgollogan to about 150m. The gradient of the land adjacent to Puck’s Castle Lane is steep at 13.5%, which is the steepest area across the two LAP areas, excluding the Brides Glen and Ballyman Glen valleys.

Specific Local Objective (SLO) #92 in the CDP which states the following: “It is an objective of the Council that no insensitive or large-scale development will take place above the 90-metre contour line at Rathmichael, from Old Connaught Golf Course to Pucks Castle Lane”. Given that the western side of Rathmichael LAP, and a small portion of the west of the Old Connaught LAP sits at an elevation higher than 90m the implication of this SLO is that the potential development of this area may be restricted.

#### 2.1.2 Water bodies and Associated Flood Risk

The Old Connaught and Rathmichael LAP areas include several waterbodies as described in Table 2.1.

**Table 2.1 Watercourses in Old Connaught and Rathmichael LAP Areas**

Watercourses	Description
Crinken Stream	The Crinken Stream runs across the northern border of the Old Connaught LAP area and the southern portion of the Rathmichael LAP area. Most areas within the CFRAM flood extents west of the M11 are indicated as land zoned as “Greenbelt” (GB), as well as “New residential communities and sustainable neighbourhood infrastructure” (A1).
Old Connaught Tributary	The Old Connaught tributary is a watercourse which runs through privately owned land at the centre of the Old Connaught LAP area.  A bifurcation running along Old Connaught Avenue has been constructed to ease flows along the original stream. The bifurcation rejoins the tributary just before the crossing of the M11.
County Brook Stream	The County Brook Stream borders the Old Connaught LAP area to the south, and it runs along the border between the Dun Laoghaire Rathdown and Wicklow County Council administrative areas. A portion of the watercourse has a CFRAM map which is under review.
Dargle River and Dargle Tributary	The Dargle River and Dargle Tributary border the southern portion of the Old Connaught LAP area. Portions of both watercourses have CFRAM maps which are under review.
Shanganagh River	The Shanganagh River borders the Rathmichael LAP area to the northeast. The Carrickmines Shanganagh Flood Relief Scheme (FRS) commenced in August 2020 and flood works of significance are not expected to be constructed before 2026 (Newsletter 02 from August 2022 for Carrickmines Shanganagh River FRS). A climate adaptation plan will be produced as a part of the FRS and should be used to inform future Development Plans.

Watercourses	Description
Brides Glen River	The Brides Glen River is a tributary of the Shanganagh River which borders the Rathmichael LAP area to the north. The Brides Glen River is a part of the Carrickmines Shanganagh FRS and is sometimes referred to as Loughlinstown River South.

Figure 2-1 and Figure 2-2 show the watercourses and flood zones within Old Connaught and Rathmichael LAP areas, respectively. The water courses include the Brides Glen River, Crinken Stream and the Dargle Tributary (which runs through Ballyman Glen SAC).

While these watercourses and their associated ecological value can be regarded as barriers for movement of people and vehicles, they form important wildlife corridors that need to be preserved and integrated into future development as green and blue infrastructure assets. Development should be sensitive to any impact as per DLR County Development Plan 2022-2028 Policy Objective GIB24. This objective seeks to limit development within identified floodplains and to preserve riparian corridors. The abovementioned policy indicates that a buffer zone extending a ‘minimum of 10m each side of the water’s edge (should be reserved) for amenity and biodiversity’ in any development proposal.

The river Dargle, is located in close proximity (~150metres) to the south-east boundary of the Old Connaught LAP area. The river Dargle is a protected river that is designated in the Salmonid Regulations (S.I. 293 / 1988). A potential indirect impact on the river Dargle is therefore identified, and the water quality of this river will need to be considered and assessed (and mitigated where necessary) at the appropriate stage of the development of the Old Connaught LAP.

### 2.1.3 Flood Risk Areas

The LAP areas include several flood zones which may impact areas that can be developed, and are shown in Figure 2-1 and Figure 2-2.

The DLR CDP SFRA 2022-2028 completed Justification Tests for both Old Connaught and Rathmichael LAP areas. The Old Connaught LAP area passed the Justification Test, meaning that development may be brought forward within Flood Zones A and B provided it adheres to the policies set out in the DLR County Development Plan 2022-2028 (including SFRA) including no highly vulnerable development in Flood Zones A and B and no impact on existing flood storage. The Rathmichael LAP area not pass the Justification Test for development within Flood Zone A and B due to sufficient alternative lands and all development should be located in Flood Zone C.

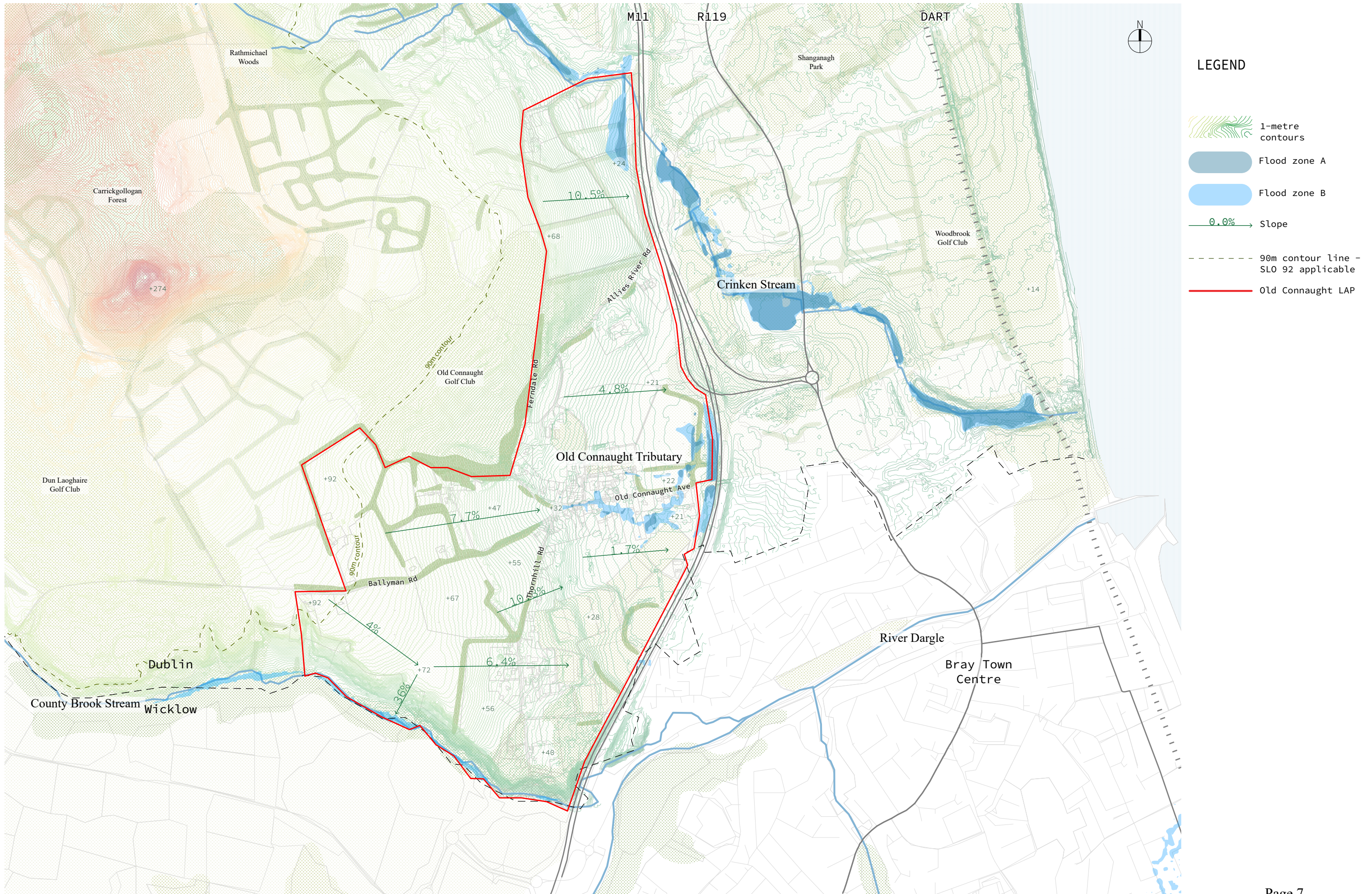
The principal areas for flood risk within the LAP areas are the flood zones surrounding Old Connaught Avenue within the Old Connaught LAP area. This includes the Old Connaught Tributary and overland flow risk along Old Connaught Avenue. Areas bordering the Brides Glen River and the Shanganagh River in the Rathmichael LAP area, and areas bordering the Crinken Stream in both LAP areas, are also within identified flood risk areas.

Flood mitigation measures should be included for any minor or less vulnerable development built within Flood Zones A and B in the Old Connaught LAP area. These measures include:

- Adjustments to site layout
- Locating vulnerable development outside of flood extents, provided there is proper emergency access and egress
- Raising site or finished floor levels
- Nature-based solutions (including SuDS) or green infrastructure; and/or
- Providing compensatory storage.

Additional information on constraints can be found in the Preliminary Assessment to inform the Strategic Flood Risk Assessment for the Old Connaught and Rathmichael LAP Areas completed during Part 2 of the ICAS.





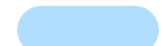
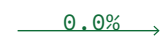




**Figure 2-1 Topography, Waterbodies and Flooding – Old Connaught**





**LEGEND**

-  1-metre contours
-  Flood zone A
-  Flood zone B
-  Slope
-  90m contour line - SLO 92 applicable
-  Rathmichael LAP

**Figure 2-2 Topography, Waterbodies and Flooding – Rathmichael**



#### 2.1.4 Environmentally Sensitive Areas, Existing Green Infrastructure and Biodiversity

The EU defines Green Infrastructure (GI) as “a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services such as water purification, air quality, space for recreation and climate mitigation and adaptation.” As identified within the DLR County Biodiversity Action Plan 2021-2025, the two LAP areas sit within the Shanganagh to Marlay Park wildlife corridor which includes Rathmichael Wood and Ticknick Park, as shown in Figure 2-3. The two LAP areas also sit within the Glendoo Mountain and Shanganagh wildlife corridor. The Brides Glen corridor to the north of the two LAP areas forms a connection with the Fernhill to Brides Glen corridor further northwest.

To the south the Ballyman Glen SAC (Site code 000713), the Ballyman Glen pNHA (Site code 000713) and the Loughlinstown Wood pNHA (Site code 001211) are partially located adjoining the two LAP areas. Ballyman Glen contains Tufa Springs, an Annex I habitat, throughout the expanse of the designated SAC and pNHA. This habitat is groundwater dependent which can be affected by groundwater pollution events. The Ballyman Glen SAC and pNHA contains a watercourse which has historic otter couches, specifically it’s mouth. Otters can have large territories which can vary between one otter per 2km to one otter per 50km dependent on foraging quality (National Roads Authority 2008). The Glen occurs approximately 3km from the historic couch so it should be considered likely that the LAP areas sit within the territorial range of any otter utilising the couch. The Ballyman Glen SAC also contains records of a badger sett within or immediately adjacent to the pNHA site boundary. The National Biodiversity Data Centre offer a Bat Suitability Landscape database (Lundy et al 2011) which determines suitability for bats based on landscape character and habitat types. The scale for this database ranges from 0, least suitable for bats to 100 - most suitable for bats. On average the tetrad encompassing the part of the site scores 39.78 across all species, however several species score much higher, notably: Brown long-eared bat (*Plecotus auratus*) and Leisler’s Bat (*Nyctalus leisleri*) (57), Common Pipistrelle (*Pipistrellus pipistrellus*) (55), Soprano Pipistrelle (*Pipistrellus pygmaeus*) (51) and Natterers Bat (*Myotis nattereri*) (50).

The Ballyman Glen SAC is of particular relevance to the future development of the two LAP areas. Ballyman Glen – a Natura 2000 site - is the most important area of biodiversity in the Plan area and is located along the southwestern fringe of the Old Connaught LAP area. The Glen is a steep-sided valley, that traverses the County Brook stream, which defines the administrative boundary between, respectively, DLR and Wicklow County. The Glen is a candidate Special Area of Conservation (SAC) and a proposed Natural Heritage Area (pNHA).

Any development proposals with the potential to impact on Ballyman Glen or any Groundwater Dependent Terrestrial Ecosystems (GWDTE) within the area shall be assessed collaboratively at the appropriate stage by a hydrogeologists and ecologist and shall take cognisance of the requirement to maintain the rate, quality and general areas where groundwater recharge occurs in order to maintain or enhance the recharge supplying the groundwater-dependent habitats of Ballyman Glen SAC or any other GWDTEs within the area. This shall be achieved using an appropriate SuDS system(s) where any infrastructure is proposed and developed throughout a site and would take into account the cumulative in-combination impact of other development.

Loughlinstown Wood pNHA is located on the north bank of the Shanganagh River to the northeast of the Rathmichael LAP area. The wood was originally planted but following substantial regeneration, has produced woodland of natural character in age, structure and form. This site is a good example of demesne-type mixed woodland which contains important habitats such as EU Annex Alluvial Woodland and species such as badger, EU Annex otter and provides many ecosystem services including biodiversity, water management, carbon sequestration and recreation. This part of the LAP scores 32 on average across all bat species (Lundy et al 2011). Leisler’s bat (50) scores particularly well, followed by Common Pipistrelle (49) and Soprano Pipistrelle (48).

There may be areas within the LAP’s that do not have formal protection under legislation, but which still possess a level of natural heritage importance. These areas include hedgerows, woodlands, wetlands, semi-natural grasslands, trees, rivers, streams, private gardens, and other urban green spaces.

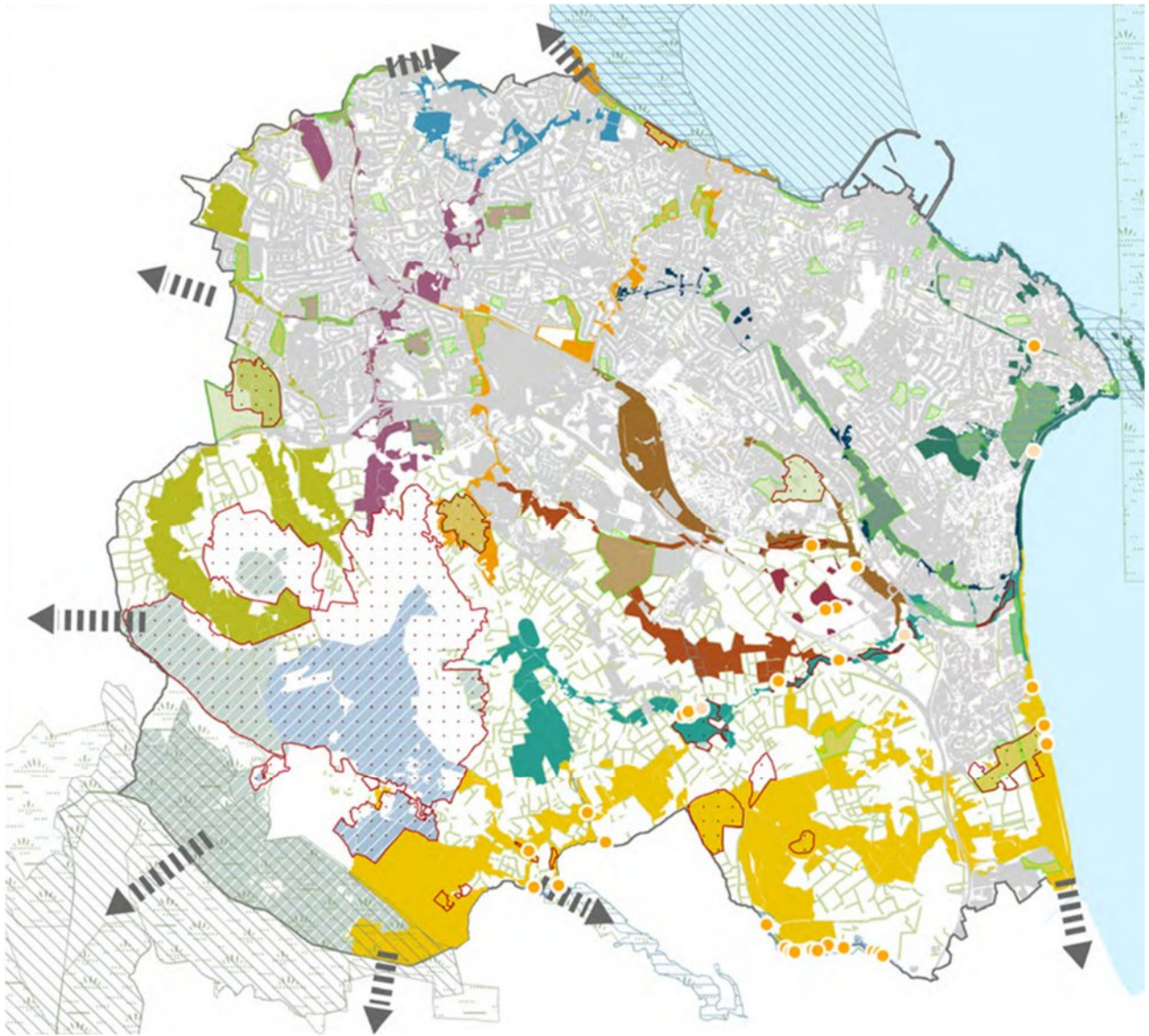
The two LAP areas consist of improved agricultural grasslands, open spaces/fields demarcated by hedgerows and various residential, commercial and recreation developments. Some of these areas, in particular areas of open grassland, might be suitable for foraging Annex I species such as Light Bellied Brent Goose or other wintering birds. There appears to be extensive hedgerows along the boundaries of the open spaces/fields within the two LAP areas, which have the potential to have ecological value and provide ecological corridors. There are also areas of mature tree woodlands. The appropriate ecological assessments need to be undertaken during design development.

As per the National Biodiversity Data Centre website the key Fossitt habitat types within the LAP areas include, but are not limited to: Mixed broadleaved woodland, mixed broadleaved/conifer woodland, riparian woodland, scrub, improved agricultural grassland, amenity grassland (improved), dry-humid acid grassland, dry siliceous heath, recolonising bare ground, tilled land and buildings and artificial surfaces. There is one very small area of European dry heaths (4030), an Annex 1 habitat, within the boundary of the Rathmichael LAP area, at Puck's Castle Lane Figure 2-5. Annex 1 habitats are habitats of European importance and protected under the Habitats Directive.

Opportunities will be developed that use the mitigation hierarchy and aim to preferentially avoid ecological impacts, or minimising these impacts where impact is unavoidable. The options will also outline where scope occurs to create and enhance connectivity additional areas of biodiversity. It should be noted that the dataset available should not be considered exhaustive. An absence of evidence of rare or protected species should not be considered as evidence of absence and therefore ground truthing incorporating appropriately designed ecological surveys should be undertaken and representative of, though not necessarily limited to, the sensitive ecological receptors noted above.

Statutory and non-statutory designated sites in the area are primarily woodland or associated habitats. Landscape scale conservation should prioritise corridors around areas of high biodiversity interest. Opportunities occur therefore to improve the protection and connectivity of these designated woodlands, and benefit species such as bats, badgers and otters that have been recorded in the area. In addition, focusing on this habitat will also benefit other species of note such as various mining bees recorded in the area. Potential also occurs for improving the heterogeneity of the landscape. Diverse species rich grassland has been recorded in the area that arguably meets Annex I quality. Sympathetically incorporating this habitat into plans for parks in the area should be considered sympathetically (i.e. with design and management sensitive to the management of species rich grassland and the features of interest that such habitats support e.g. Skylark (*Alauda arvensis*))

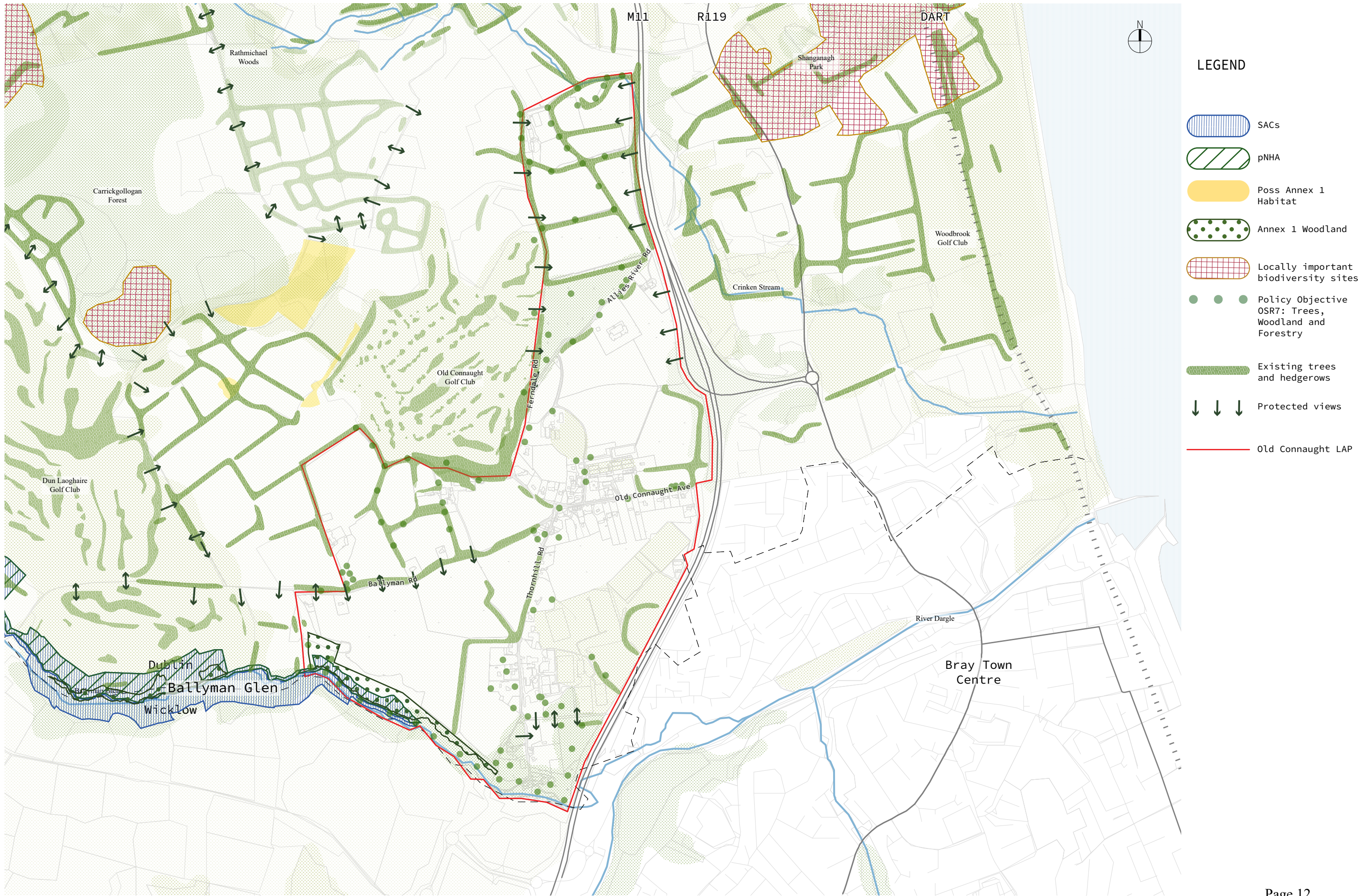
Regard should be had to the relevant policy objectives contained in Chapter 8 (Green Infrastructure and Biodiversity) of the DLRCC County Development Plan 2022-2028. Chapter 8 of the Plan includes policies for the protection, creation, and management of this resource in an integrated manner by focusing on key themes within GI such as: landscape and the coast; access; biodiversity; and parks. In addition, the integration of the emerging Ecosystem Services Approach (ESA), will be promoted and encouraged. ESA is a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way. This is also included in the Dún Laoghaire-Rathdown County Biodiversity Action Plan 2021-2025 (Dún Laoghaire-Rathdown County, 2021). A list of species of higher conservation value identified within 2km of the LAP Areas are presented in Appendix B.



- |   |   |
|---|---|
| <b>River/Costal Wildlife Corridors</b>    | ● Annex Points                                |
| ■ Brides Glen corridor                    | ○ Possible Annex Points                       |
| ■ Dodder Valley corridor                  | ■ Annex Habitats                              |
| ■ Fernhill to Booterstown corridor        | ■ Possible Annex Habitats                     |
| ■ Fernhill to Brides Glen                 | ■ Locally Important Biodiversity Sites (LIBS) |
| ■ Glendoo Mountain to Shanganagh corridor | ■ SPA   |
| ■ Killiney and Dalkey costal corridor     | ■ pNHA  |
| ■ Leopardstown Brides Glen corridor       | ■ SAC   |
| ■ Leopardstown to N11 corridor            | ■ DLR County Boundary                         |
| ■ St John of Gods to Killiney corridor    | ■ DLR Parks                                   |
| ■ Ticknock to the River Dodder corridor   | ■ Hedgerow Wildlife Corridors                 |
| ■ UCD to Blackrock corridor               | ■ Built Land                                  |
|   | ▶▶▶▶▶ Connectivity into Wider Landscape       |

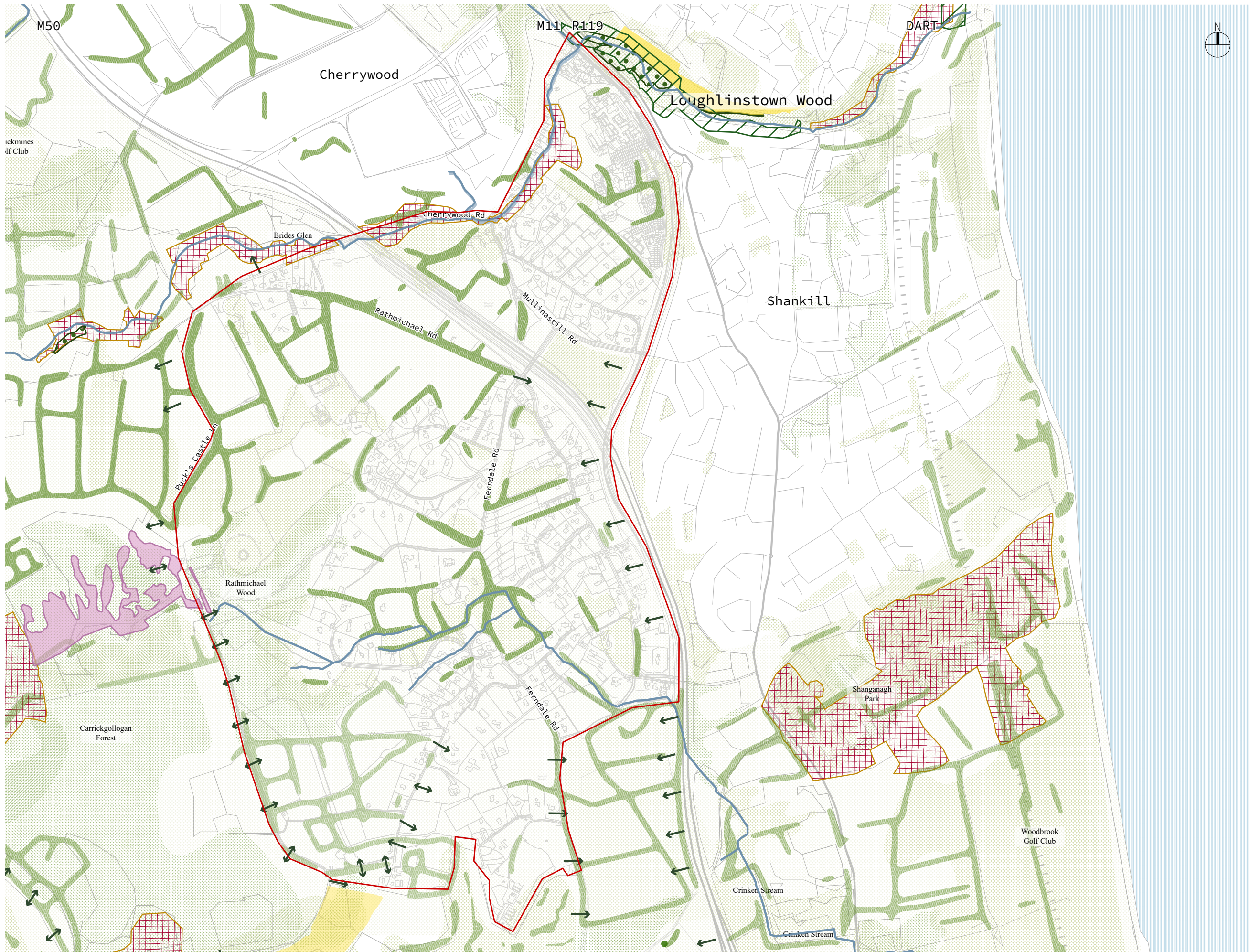
**Figure 2-3 DLRCC County-wide Ecological Network**














**Figure 2-4 Existing Environmentally Sensitive Areas, Existing Green Infrastructure and Biodiversity – Old Connaught**





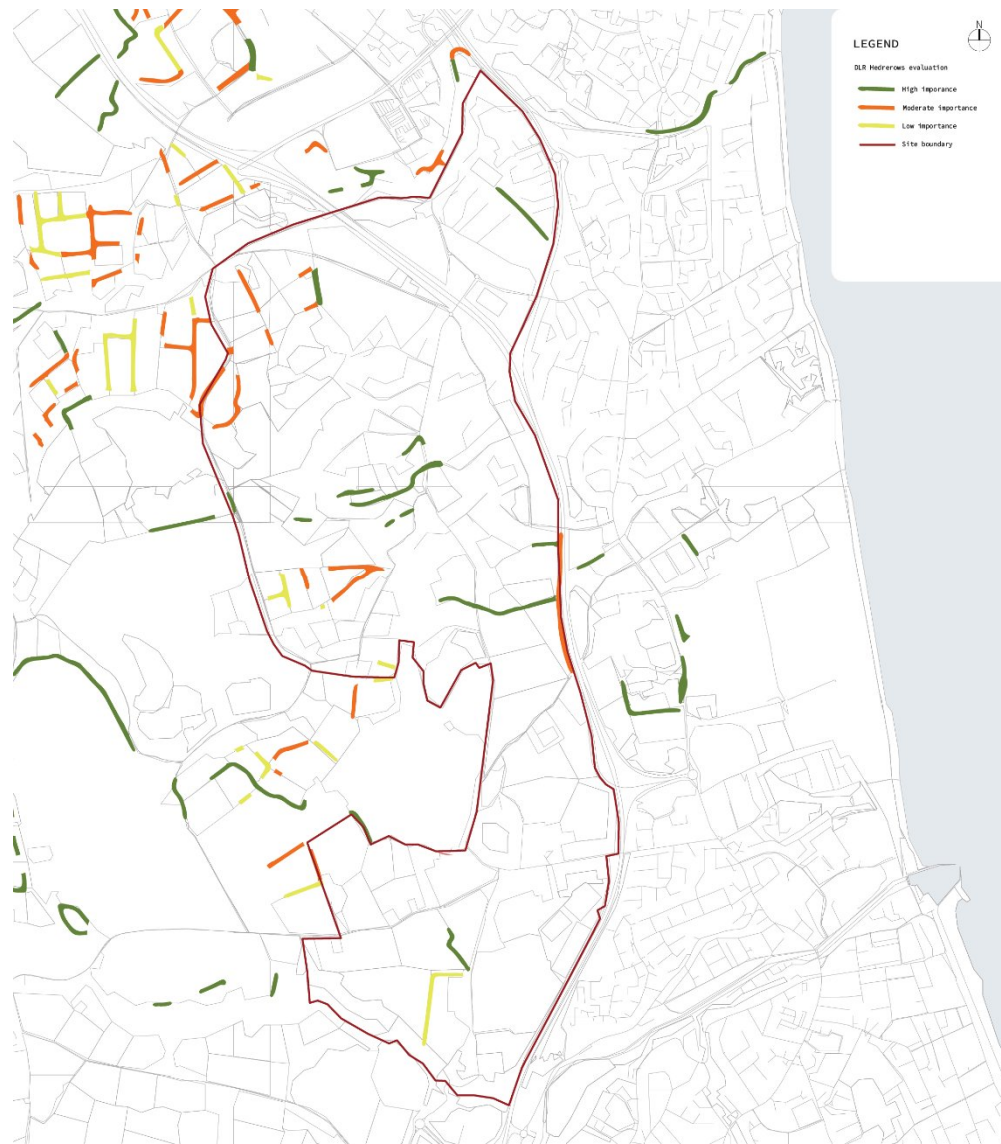
**LEGEND**

-  Annex 1 Habitat
-  pNHA
-  Poss Annex 1 Habitat
-  Annex 1 Woodland
-  Locally important biodiversity sites
-  Policy Objective OSR7: Trees, Woodland and Forestry
-  Existing trees and hedgerows
-  Protected views
-  Rathmichael LAP

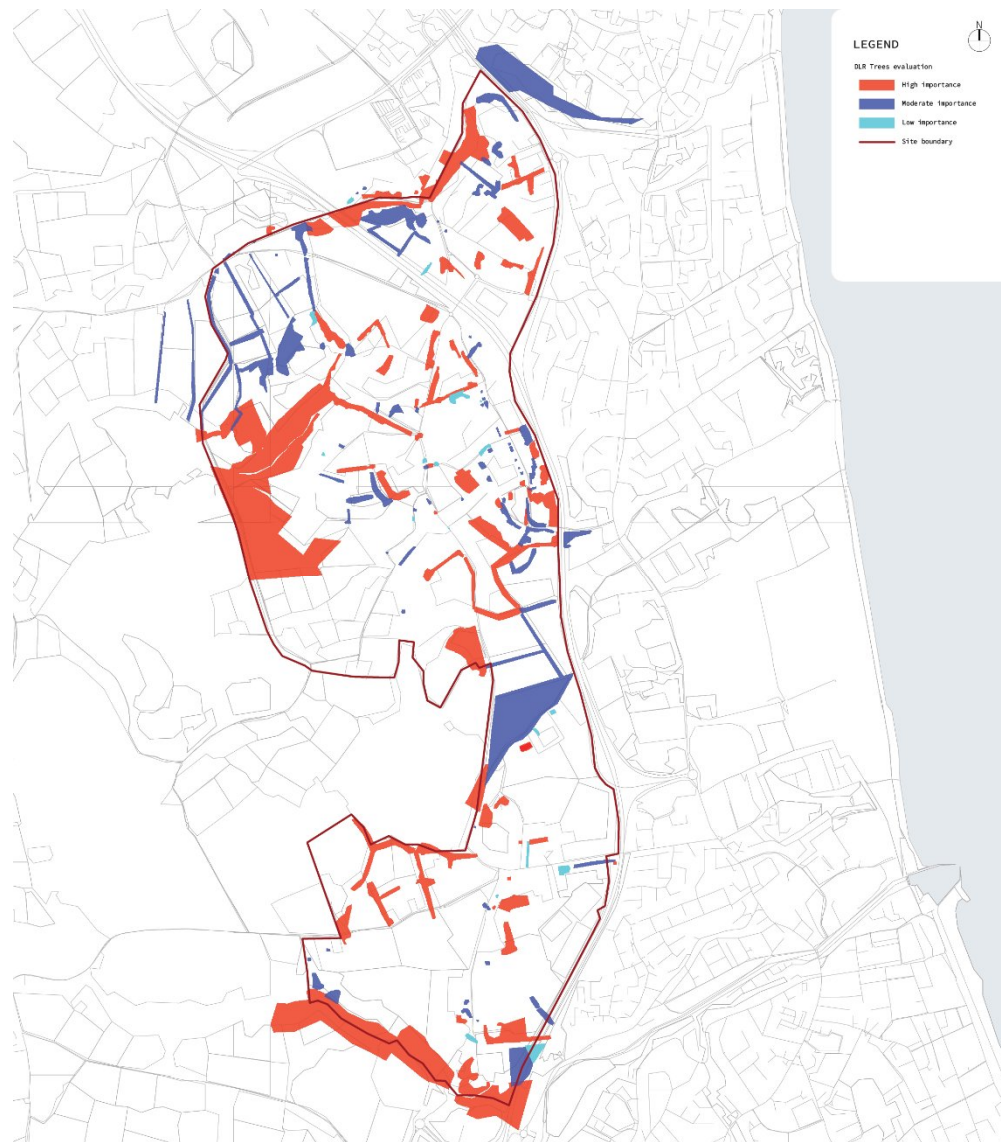
**Figure 2-5 Existing Environmentally Sensitive Areas, Existing Green Infrastructure and Biodiversity – Rathmichael**







**Figure 2-7 Existing Hedgerow Condition Survey - Captured as part of 2020 survey, mapped and graded at a high level due to limitations of site accesses.**



**Figure 2-8 Existing Trees Condition Survey - Captured as part of 2023 survey, mapped and graded at a high level due to limitations of site accesses.**

### 2.1.5 Heritage and Conservation

Within the two LAP areas the recorded monuments or buildings listed include the following:

- Sites and Monuments Register (SMR)
- Record of Monuments and Places (RMP)
- Record of Protected Structures (RPS)
- National Inventory of Architectural Heritage (NIAH); and
- Industrial heritage sites.

There are 42 recorded monuments such as earthworks, crosses, castle, megalithic tomb etc., listed on the Sites and Monuments (SMR) and 13 Record of Monuments and Places (RMP) such as House (16th/17th Century), Ringfort, Enclosure etc., identified within the two LAP areas.

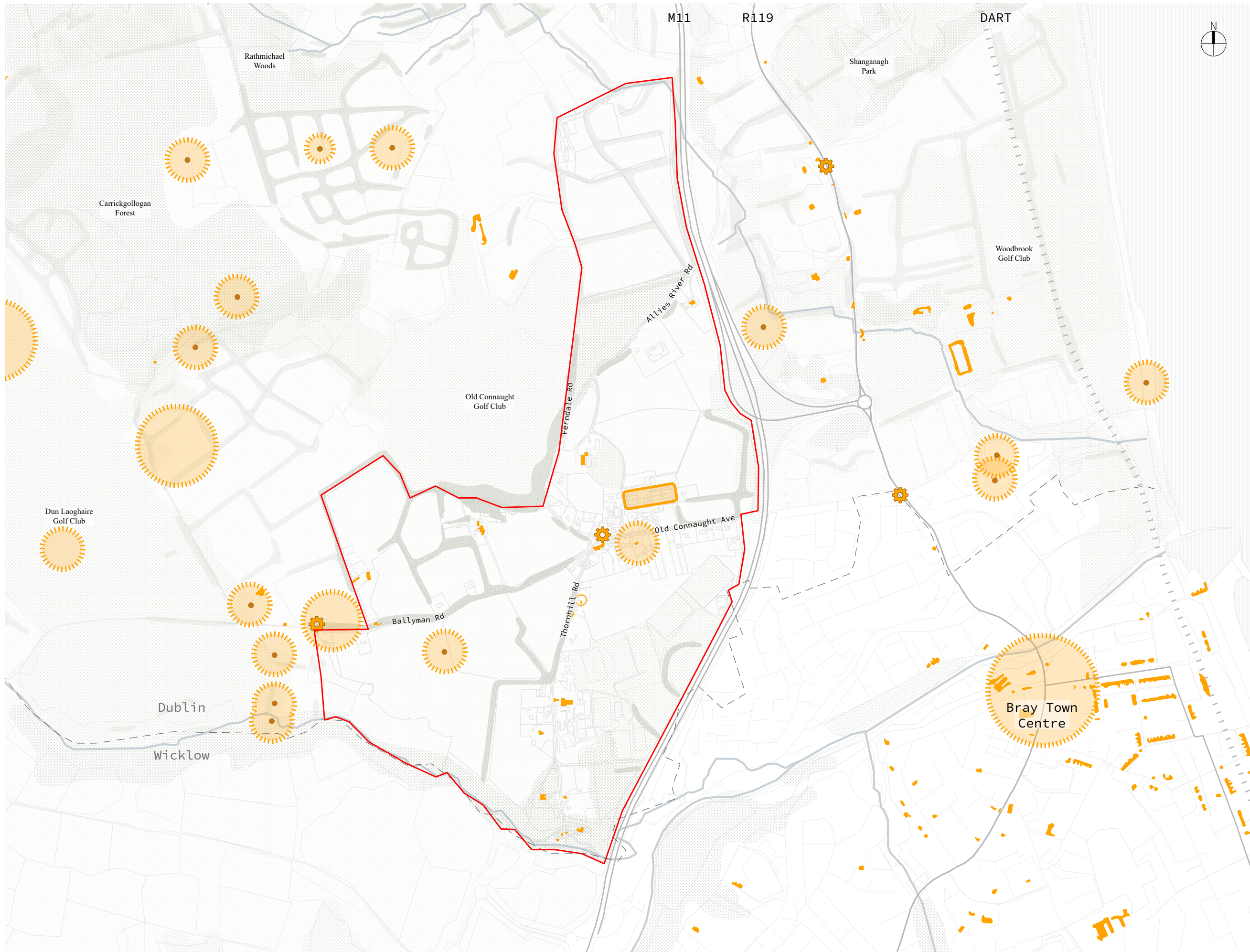
Approximately 41 structures or group of structures such as houses, farmhouses, wall gardens, gate lodges etc., of architectural heritage significance have been identified within the boundary of the two LAP areas. These are either listed within the Record of Protected Structures (RPS) as listed in the Dún Laoghaire-Rathdown County Development Plan 2022-2028 or have been identified in the National Inventory of Architectural Heritage (NIAH). There are five 'key' industrial heritage sites located in the two LAP's DLR County Development Plan mapping, there is a larger DLR 2006 Industrial Survey dataset which is not indicated on Figure 2-9 and Figure 2-10 below.






All SMRs, RMPs and RPSs have statutory protection and avoidance of these features is recommended. Opportunities should be considered to incorporate archaeological or architectural heritage features appropriately into the development of the LAP sites. Chapter 11 of the County Development Plan includes specific objectives and guidance relating to the protection of the County's heritage under the headings of archaeological, architectural and countywide heritage (which includes the DLR Heritage Plan), and important overarching themes which require specific, additional consideration.

A Historical Landscape Character Assessment (HCLA) of the Old Connaught and Rathmichael areas, prepared in 2008, offered an overall perspective of the existing landscape, its relationship with the extent and status of its historic fabric and buildings and how the promotion of sustainable development in that environment could be managed.

The above is illustrated in Figure 2-9 and Figure 2-10 below. In Old Connaught, protected heritage structures are predominantly located in the centre, western and southern parts of the LAP area while the protected heritage structures are distributed across the Rathmichael LAP area. The existing topography is described in section 2.1.1 and existing hedgerows and trees are shown in Figure 2-7 and Figure 2-8.

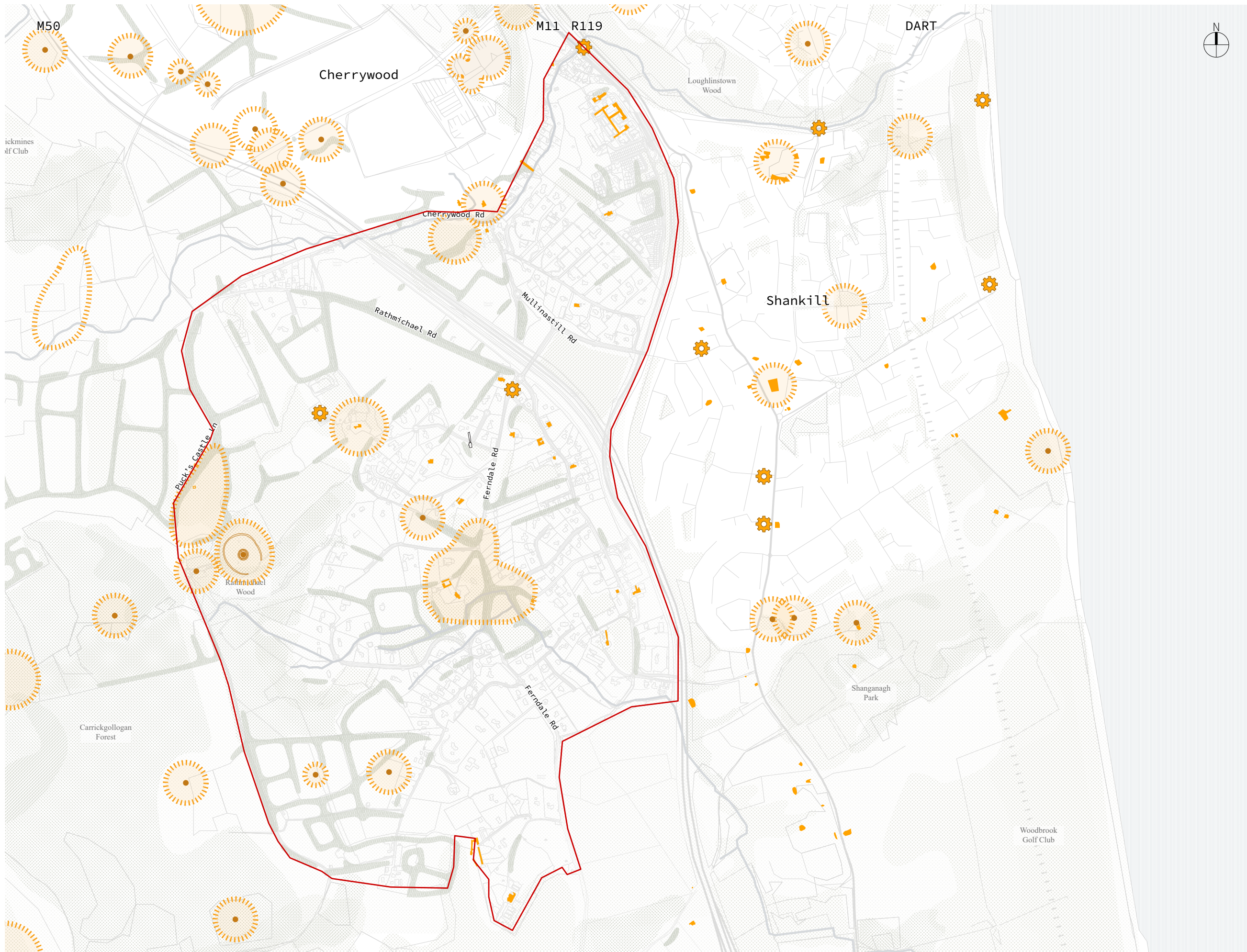









- LEGEND**
-  Archaeology on the RMP/SMR and Zones of Archaeological Notification
  -  Archeological monuments
  -  Protected structures
  -  Industrial Heritage sites mapped in DLR County Development Plan 2022-2028
  -  Old Connaught LAP

**Figure 2-9 Heritage and Conservation – Old Connaught**





**LEGEND**

-  Archaeology on the RMP/SMR and Zones of Archaeological Notification
-  Archeological monuments
-  Protected structures
-  Industrial Heritage sites mapped in DLR County Development Plan 2022-2028
-  Rathmichael LAP

**Figure 2-10 Heritage and Conservation – Rathmichael**

### 2.1.6 Air and Noise Pollution

The two LAP areas are within Air Quality Zone A according to the Environmental Protection Agency (EPA) with air pollution ratings ranging from “moderate” to “good”. The publicly available ambient air quality data for Dublin areas, suggest that the air quality is within the EU air quality limits, except for NO<sub>x</sub> which exceeded its Air Quality Standard for the protection of vegetation. Therefore, it is important to ensure that the impact of future development will be considered and assessed as appropriate during design development.

Figure 2-11, Figure 2-12, Figure 2-13 and Figure 2-14 show the noise pollution levels in the two LAPs and surrounding areas for both Day and Night. The DLRCC Noise Action Plan 2018-2023 establishes that undesirable high sound levels are greater than 55dB at night-time and 70dB at daytime. Areas in Old Connaught that fall within the “undesirable” high sound levels include the Strategic Land Reserve (SLR) and majority of the areas between Ferndale Road/Thornhill Road and the M11 and Ballyman Road. In Rathmichael, the “undesirable” high sound levels are located immediately on both sides of roads and streets, including the N11, M50, Mullinastill Road, Rathmichael Road, Brides Glen Road, Ferndale Road and Old Connaught Avenue.

Therefore, future developments should consider a wide range of potential noise mitigation measures, as per the DLRCC Noise Action Plan, particularly the areas within the undesirable high sound levels near the M11, which may include provision of noise barriers. The potential for noise impacts which might be caused by the future development of the two LAP areas will need to be considered and assessed as appropriate during design development. In addition, the impact of existing noise sources (e.g., traffic noise from the M50/N11) on the development of the two LAP areas will also need to be considered.

### 2.1.7 SEA and AA Screening

Appendix A of this report includes the Strategic Environmental Assessment (SEA) Screening and Appropriate Assessment (AA) Screening reports.

The first stage of SEA Screening is ‘Applicability Screening’, whereby an assessment is carried out to determine whether a particular plan or programme is within the remit of the SEA Directive / SEA Regulations. The SEA Applicability Screening Report provides the findings of the SEA Applicability Screening process for the ICAS.

The ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect. It has been determined that the SEA Directive does not apply to the ICAS and that proceeding to Stage 2 Screening is not necessary in this case.

An AA Screening report is also included in Appendix A which contains information regarding the need for a Screening for Appropriate Assessment on the ICAS project. An Appropriate Assessment of a plan or project is required if it is likely to have a significant effect on a European site, either alone or in combination with other plans and projects, pursuant to the Habitats Regulations (as amended) and the Planning and Development Act (as amended).

No pathways for effect were determined following review of the ICAS. Therefore, in accordance with guidance from the OPR, the ICAS cannot have a conceivable effect on a European site. Additionally, it has been determined that the ICAS does not meet the definitions of a ‘project’ or a ‘plan’ and therefore is not eligible for a Screening for AA.

The ICAS Study will identify the proposed recommendations for high-level strategic enabling infrastructure required to facilitate plan-led development of the proposed LAP areas of Old Connaught and Rathmichael and to be considered in the formulation of policy by DLRCC to this effect.

The ICAS Study is not required by legislative, regulatory or administrative provisions. The ICAS is not subject to a formal approval procedure.