LOUTH COUNTY DEVELOPMENT PLAN 2021-2027

APPENDIX 8

Green Infrastructure Strategy

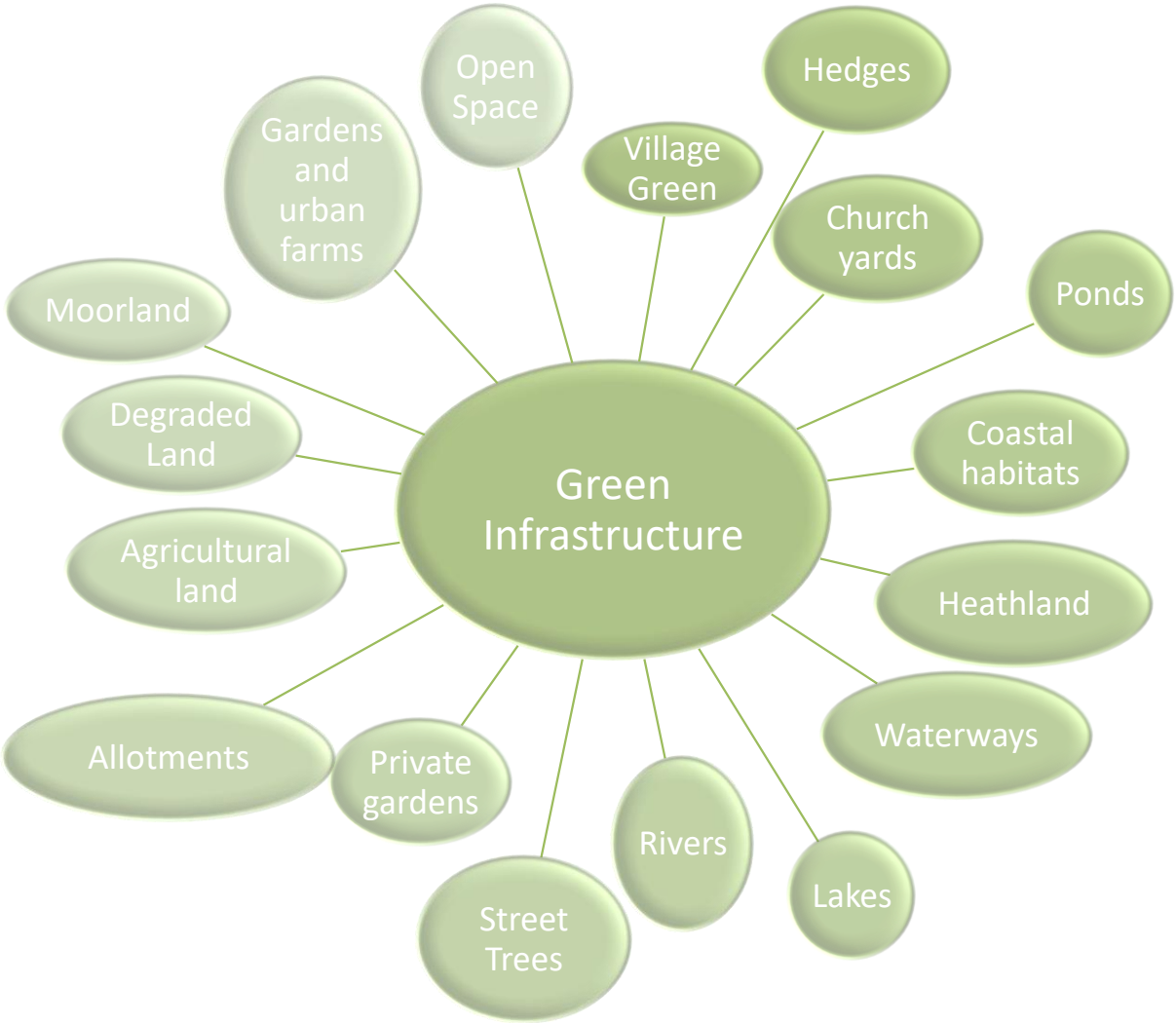
1 GREEN INFRASTRUCTURE STRATEGY

1.1 GREEN INFRASTRUCTURE DEFINITION

Green infrastructure (GI) is a network of green spaces that help conserve natural ecosystems and provide benefits to human populations through water purification, flood control, carbon capture, food production and recreation. Such spaces include woodlands, coastlines, flood plains, hedgerows, city parks and street trees.

This strategy aims to assess the current environmental baseline within County Louth. In addition to this, it will provide support for a strategic network of natural and semi-natural areas interconnected, designed and managed to deliver a range of ecosystem services. The GI strategy incorporates green spaces and blue spaces (water based) such as those in Figure 1, both in urban and rural areas to support a resilient society.

Figure 1: Natural Features Making Up Green Infrastructure



GI is composed of an Ecological Network (EN) which consists of core areas (or hubs), corridors, stepping stones and buffer zones where the corridors and stepping stones create a connection between constituent core areas (Figure 2). These may be described as outlined below:

Core Areas: These areas consist of the central most important ecological areas which support important or vulnerable species and habitats for e.g. European sites.

- ***Ecological Corridor:*** These are also referred to as landscape or linear corridors and include long strips of vegetation, such as hedgerows, strips of forest and other vegetation which facilitates the movement of wildlife between the two core areas.

  Stepping stones are also corridors made up of a series of small, non-connected habitats.

  Buffer Zone: These surround areas of ecological value to minimise the impacts of adjacent land use on these ecologically important areas.

  The GI Strategy provides support for all such aspects of this ecological network as illustrated in Figure 2**.**

Figure 2: Indicative Illustration of Green Infrastructure within the Landscape

Source: "Green Infrastructure, A Quality of Life Issue" (IEEM & Urban Forum)

1.2 National Guidance for Green Infrastructure Strategy

Since the adoption of the Louth County Development Plan 2015-2021, the GI concept is now more widely considered, promoted and implemented at national and regional level, requiring Green Infrastructure and ecosystem services be incorporated into the preparation of statutory county and city plans.

1.3 National & Regional Context

1.3.1 Project Ireland 2020 – National Planning Framework

The *National Development Plan* recognises that the environment is an asset that can, if properly planned provide long term benefits for all. In this regard the NPF aims to protect and strengthen the interrelationship between our habitats, natural and cultural heritage, landscapes and green spaces. In acknowledgement of this, and in achieving its goals as expressed as National Strategic Outcomes (NSO), the NPF requires the incorporation of integrated planning for green infrastructure and ecosystem services in the preparation of statutory land use plans, whereby: growth is accommodated while retaining the intrinsic value of natural places and assets; environmental issues are proactively addressed, interaction between future development and the capacity of the receiving environment is examined; and where sufficient green spaces are designated in plans commensurate to long term development requirements.

Linkage and integration with the built and cultural heritage which helps define the character of urban and rural areas is also recognised.

1.3.2 National Biodiversity Action Plan, 2017-2021

The *National Biodiversity Action Plan (NBAP)* recognises that GI is crucial to achieving biodiversity targets and developing ecological corridors that allow the movement of species through their entire natural habitat. Its objectives, targets and actions seek to achieve Ireland's vision for biodiversity through the implementation of seven specified strategic objectives. It links the associated targets and actions for biodiversity objectives that will be undertaken by a wide range of government, civil society and private sectors to achieve Ireland's vision for biodiversity. The NBAP provides a framework to track and assess progress towards Ireland's vision for biodiversity over a five-year timeframe from 2017 to 2021.

1.3.3 Creating Green Infrastructure for Ireland

In general, the *Comhar Guidelines* provide strategic guidance on the implementation of GI at a national and regional level. Examples of data sets and case studies have been provided with support for an integrated approach to the delivery of GI. Eight functions of green infrastructure have been identified:

- Recreation and health;
- Biodiversity and Natural Resources;
- Coast, Water Resource and Flood Management;
- Sense of Place;
- Climate Change Adaptation and Mitigation;
- Economic Development;
- Social Inclusion; and
- Production Environments.

1.3.4 Green City Guidelines (UCD 2008)

The *Green City Guidelines* refer to the integration of a GI approach at a local level and include examples. Guidance is listed for biodiversity in urban areas as well as an overview of the planning and development process, with case studies and practical measures for incorporating biodiversity at an early stage in the design process. Key factors for defining habitat quality include:

- Size;
- Diversity;
- Naturalness;
- Typicalness;
- Rarity;
- Fragility; and
- History.

1.3.5 National Climate Change Adaptation Framework (2012)

This non-statutory framework was Ireland's first climate change adaptation framework. It provides a strategic policy focus aimed at reducing Ireland's vulnerability to climate change, by ensuring adaptation actions were taken across key sectors at national and at a local level.

This framework also recognises the importance of the role of planning and development with full engagement of key stakeholders to deliver the climate change objectives and adaptation action at a local level.

1.3.6 Climate Action and Low Carbon Development Act 2015

This Act was a national landmark in the development of climate change policy in Ireland. It provides the statutory basis for the national objective laid out in the National Policy Position to move towards and achieve a low carbon, climate resilient and environmentally sustainable economy by 2050. It brought about the compulsory need to produce and submit for approval to the Government a series of successive National Mitigation Plans (NMPs) and National Adaptation Frameworks (NAFs) to guide policy in relation to the reduction of GHG emissions and climate change adaptation.

1.3.7 National Adaptation Framework (NAF 2018)

Developed under the *Climate Action and Low Carbon Development Act 2015*, the *National Adaption Framework* is Ireland's first statutory national adaptation strategy that builds on the work carried out under NCCAF 2012 and outlines a whole of Government and society approach to climate change adaptation in Ireland. It aims to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur.

Local authorities are tasked with addressing climate change at a local level through the preparation of local climate change adaptation strategies. 4 Local Authority Climate Action Regional Offices (CAROs) were established in 2018 to drive climate action at regional and local level in Ireland. They are each operated by a Local Authority and support the preparation of local adaptation strategies.

1.3.8 Climate Action Plan (CAP)

The *Climate Action Plan* is a Government plan designed to enable Ireland to meet its EU climate change commitments through carbon proofing government policies and establishing carbon budgets. It provides 183 individual policy actions over 12 sectors to tackle climate change along with timelines for delivery to reduce carbon emissions by 30% between 2021 and 2030 and towards achieving zero emissions by 2050.

The actions in this plan, if implemented, place Ireland in a better and more confident position in realising and meeting their 2030 and 2050 targets. Several key measures identified in the plan have already been delivered including the signing up of all 31 Local Authorities in Ireland to the Climate Action Charter (CAC).

In 2019 the Government approved the publication of the *General Scheme for the Climate Action (Amendment) Bill 2019*. The Bill aims to enshrine in law the approach outlined in the CAP.

1.3.9 Climate Action Charter (CAC)

The Climate Action Charter for Louth was signed in 2019. The charter acknowledges that climate change is happening and that actions must be taken to mitigate and adapt to our changing climate. We as a nation must be more sustainable in our actions and ensure that climate action is at the heart of all our national, regional and local strategies, policies, plans and decisions. Each Chapter in this County Development Plan must be read with this *Climate Action Charter* at its core.

We must plan and develop our County with climate action including adaptation, mitigation and improvement at its heart. As a nation and County we must reduce negative climate impacts and promote climate improvement/mitigation and be climate resilient in our planning. The actions detailed in the Charter underpin all policies, objectives, goals and strategies of this plan and all other strategic plans whether they are local, regional or national.

1.3.10 Eastern and Midland Regional Spatial and Economic Strategy (RSES)

In seeking to achieve the National Strategic Outcomes as identified in the *National Planning Framework,* the *Regional Spatial and Economic Strategy (RSES)* defined 16 Regional Strategic Outcomes (RSOs), aligned with international, EU and national policy and which set the framework for City and County Development Plans. RSO No 10 and 11, specifically address 'Enhanced Green Infrastructure' and 'Biodiversity and Natural Heritage' respectively. This is in recognition of the importance of identifying, protecting and enhancing green infrastructure, biodiversity, habitats, landscape and heritage to ensure the sustainable management of our natural heritage, to build climate resilience, to support the transition to a low carbon economy and the protection of a healthy natural environment with clean air and water for all.

Green Infrastructure is a strategically planned network of high quality natural and semi-natural areas alongside other environmental features.

It serves a variety of functions including but not limited to the provision of habitats, increased biodiversity, ecological corridors, climate change adaptation and mitigation and local amenity provision.

The importance of cultural heritage including the built environment is acknowledged as the fabric of our lives and societies, bringing communities together and building a shared understanding of the places we live. Building and sustaining cultural infrastructure is a core consideration of the RSES.

Linking strategic natural assets with cultural and built heritage assets further enhances the opportunities to drive recreation and tourism benefits, including through the Green Infrastructure Strategy. The RSES identifies the Strategic GI and cultural heritage assets in the Region, which in relation to Louth include for Carlingford Lough, Clogherhead, Dundalk Bay, Boyne Coast and Estuary, the Rivers Boyne, Fane and Dee, the Cooley Peninsula, the medieval towns of Carlingford and Drogheda and the walled towns of Drogheda, Ardee and Carlingford and the many European sites etc.

1.4 Local Context

1.4.1 Louth County Council's Climate Change Adaptation Strategy (CCAS)

This *Adaptation Strategy* forms part of the *National Adaptation Framework (NA*F) which was published in response to the provisions of the *Climate Action and Low Carbon Development Act 2015*. Louth's CCAS has been developed in line with the *Department for Communities Climate Action & Environment (DCCAE) Local Authority Adaptation Strategy Development Guidelines* and was adopted by Louth County Council elected members on 16th September 2019. It is a collaborative approach to climate change across the Eastern and Midlands Region.

It sets out Louth's measures to adapting and protecting its functional area and citizens from the current and future effects of climate change and is based around six thematic areas.
They are supported by specific objectives and adaptation actions to achieve their desired outcomes. The CCAS seeks to inform or 'climate proof' existing plans and policies produced and implemented by Louth County Council.

1.4.2 Draft Louth Heritage Plan 2021- 2026

Specific reference has not been made to Green Infrastructure within the current draft Louth Heritage Plan 2021-2026. This draft Heritage Plan includes actions which can be supported by the implementation of a GI Strategy. Green Infrastructure will be particularly relevant to the implementation of the Local Biodiversity Action Plan for County Louth 2021-2026, a sub-plan under the draft Heritage Plan.

1.4.3 Local Biodiversity Action Plan for County Louth 2021-2026

Achieving the objectives of the Green Infrastructure Strategy is essential to the achievement of the Local Biodiversity Action Plan for County Louth 2021-2026. This Plan is a sub-plan of the (draft) Louth Heritage Plan 2021-2026 and includes particular reference to important habitats and species within County Louth. This Biodiversity Plan includes five key objectives as follows;

Objective 1

- Develop a system for the protection of Local Biodiversity Areas (LBAs)

Objective 2

- Integrate Biodiversity and Local Authority Activities

Objective 3

- Raise awareness and appreciation of Louth's Natural Heritage across all sections of society

Objective 4

- Gather data and enhance Louth's Biodiversity

Objective 5

- Monitor the effectiveness of the Louth BAP

2 COUNTY LOUTH BASELINE ASSESSMENT

2.1 BASELINE EVALUATION

A baseline evaluation of the state of the environment of Louth is required for an assessment of the ecological network, connectivity throughout and barriers which exist for the identification of green infrastructure. All available databases within the Local Authority were accessed and those which are also publically available. There currently exists a wealth of natural and natural built heritage assets which function both as a recreational resource, wildlife habitat and amenity area.

2.2 LAND USE

2.2.1 Settlement Hierarchy

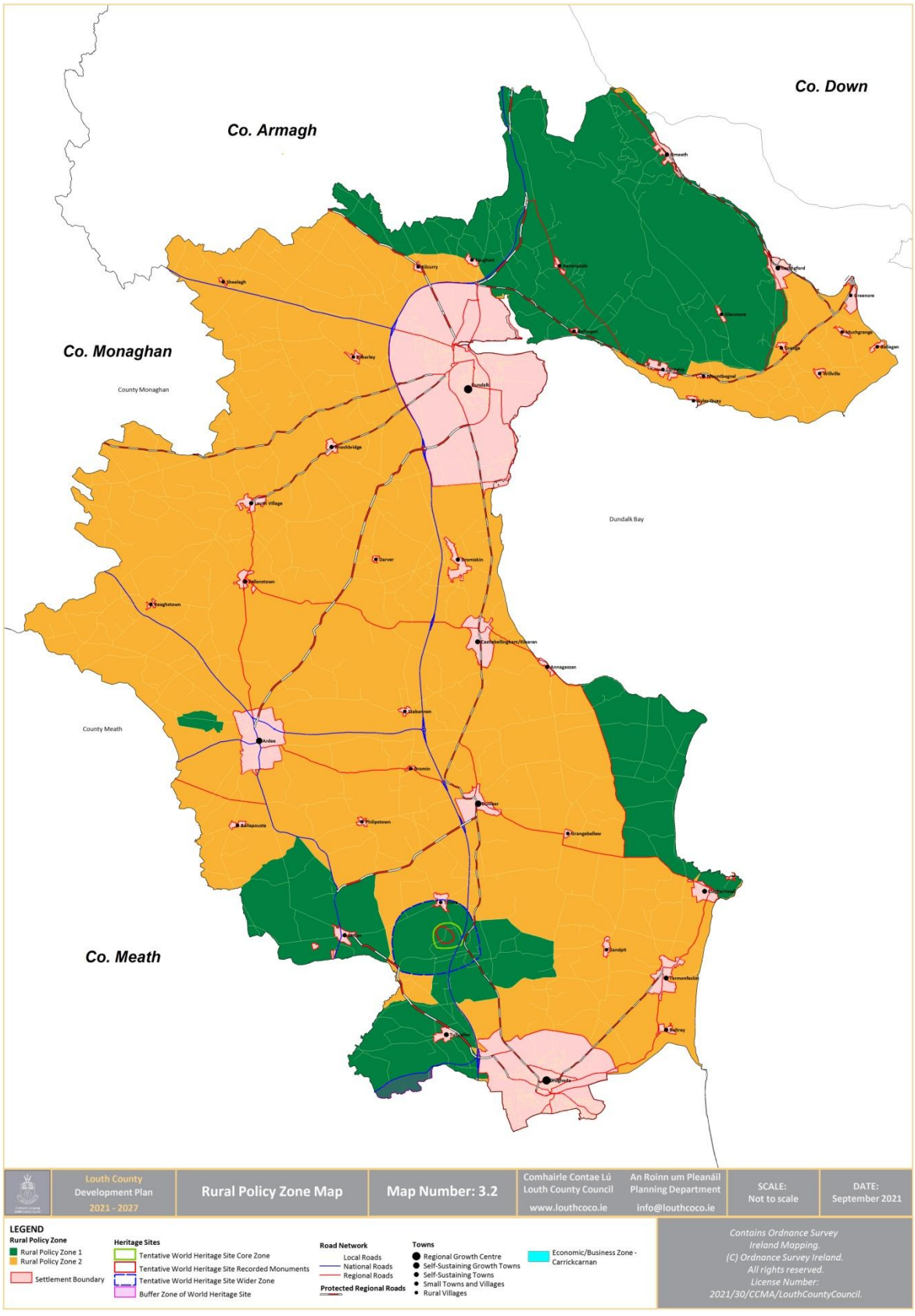
There currently exist 5 levels of settlements within Louth as per Table 1. Population growth within each of these centres is based on the targets directed from the core strategy of the County Louth Development Plan 2021-2027. The provision of green infrastructure shall be supported within each of the identified settlements as outlined in Table 1.

The LAPs for the Regional Growth Centres of Drogheda and Dundalk will include individual green infrastructure strategies. The provision of green infrastructure will be supported in all of the remaining settlements in Levels 2, 3, 4 and 5.

Table 1: Settlement Hierarchy, County Louth

Settlement Level	Settlement Category	Settlement
1	**Regional Growth Centres**	Drogheda Dundalk
2	**Self-Sustaining Growth Towns**	Ardee Dunleer
3	**Self-Sustaining Towns**	Carlingford, Clogherhead, Castlebellingham/Kilsaran, Termonfeckin, Tullyallen
4	**Small Towns and Villages**	Annagassan, Baltray, Collon, Dromiskin, Knockbridge, Louth Village, Omeath, Tallanstown,
5	**Rural Nodes**	Bellurgan, Ballagan, Ballapousta, Darver, Dromin, Faughart, Glenmore, Grange, Grangebellew, Greenore, Gyles Quay, Kilcurry, Kilkerley, Lordship, Mountbagnal, Muchgrange, Philipstown (Collon), Ravensdale, Reaghstown, Sandpit, Sheelagh, Stabannon, Tinure, Willville

Map 1: Rural Policy Zone Map



2.2.2 Corine Land Cover (CLC) 2018

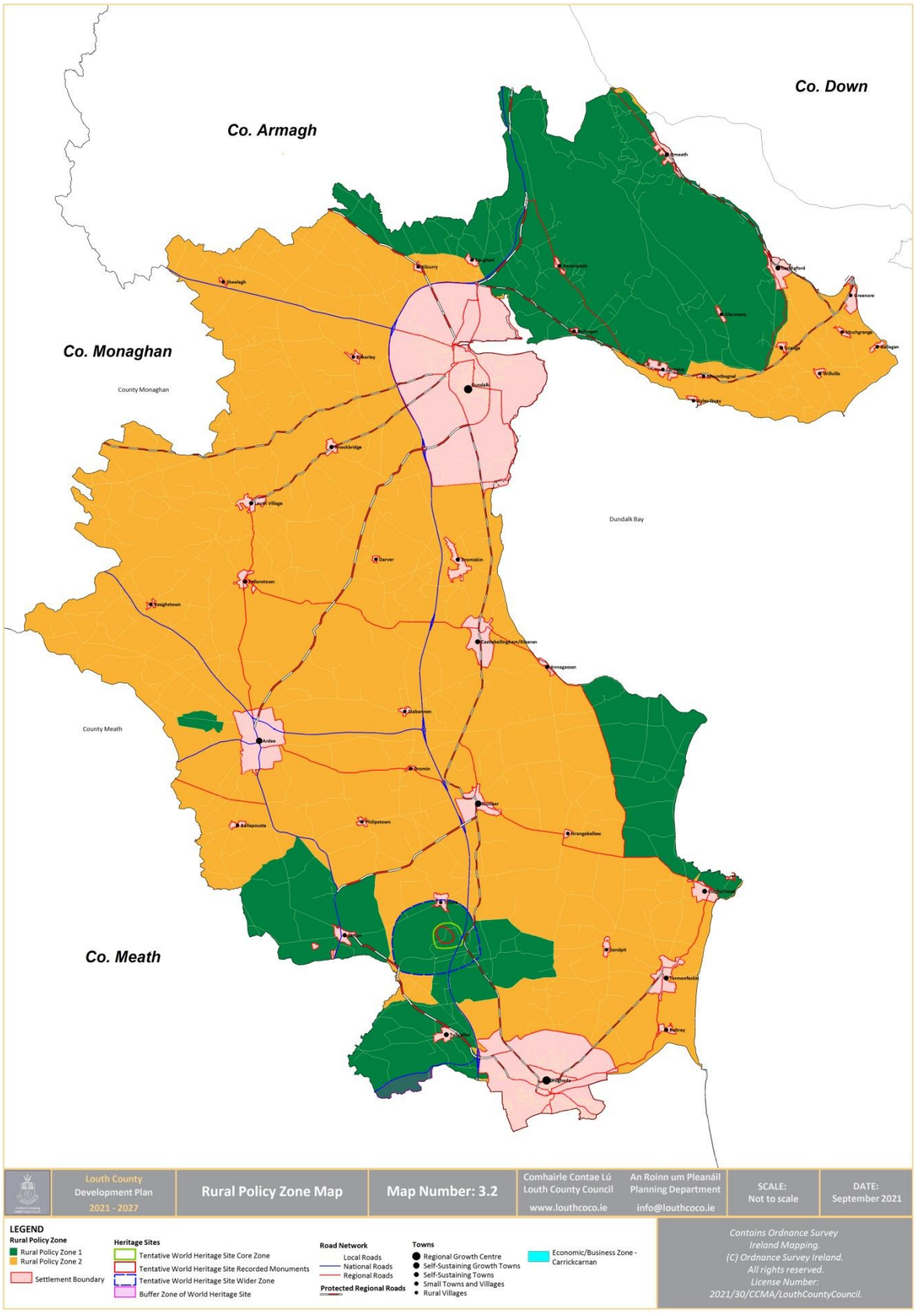
GI strategy requires multiple layers and links of land use over a variety of sectors. Gathering data and formulating methodology requires an evidence based system for analysis. Mapping for land cover in the Louth baseline assessment currently exists in the form of Corine Land Cover (CLC) undertaken in 2018 by the EPA. Corine Land Cover 2018 is a map of the Irish environmental landscape based on interpretation of satellite images of EC established CORINE specifications. This mapping was first undertaken in 1990 and updated in 2000 and 2006. Map 2 is based on the 2018 CLC and this may be used to identify the dominant land cover in the County.

A comparison between the CLC 2018 and the CLC 2006, illustrates that the principal differences relate to a growth in terms of the discontinuous urban fabric (essentially a growth in suburban type development). Additionally, in accordance with the Core and Settlement Strategies, the principal towns of Drogheda, Dundalk (including Blackrock), Ardee and Dunleer all experienced growth and expansion in their respective urban settlements as did the 5 Self-sustaining Towns and the 8 Small Towns and Villages (as identified in the Development Plan).

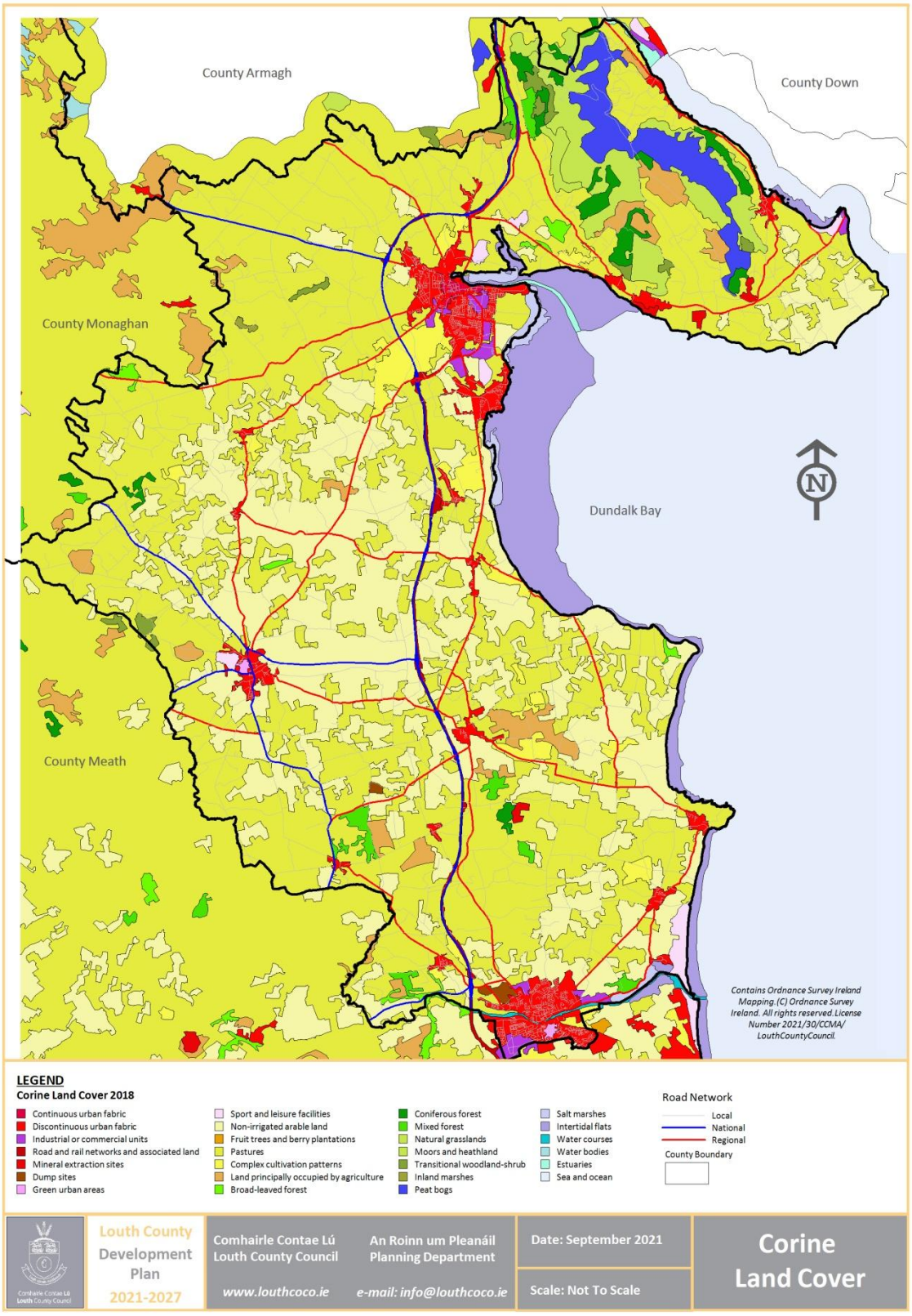
The north east of the County (in the Area of Outstanding Natural Beauty and the Areas of High Scenic Quality) these lands are dominated by peat and bogs and buffered by moors and heath in addition to coniferous, broad leafed and mixed forest. The largest settlements in this area remain to be Carlingford, Omeath and Greenore. The growth in settlements along the coast is obvious and includes the Level 5 settlement of Lordship. The Corine Map (Map 2) illustrates that the remaining predominant land use in the area is generally pasture in addition to tillage.

The coastline south of Dundalk is less dominated by settlements than that to the north, with the majority of the population concentrated in the urban area of Drogheda. However, as outlined above, the growth in the small towns and villages including Termonfeckin, Baltray and Tullyallen is also evident. The remaining predominant land cover in the area remains to be a mixture of pasture and tillage interspersed with mixed use forest.

Map 1: Rural Policy Zone



Map 2: Corine Land Cover 2018



2.2.3 Forestry

The Corine Land Cover (CLC) 2018 supplied from the EPA illustrates small pockets of woodland scattered throughout the County. In the north of the County the Carlingford Mountains contain a mixture of coniferous, broad leaved and mixed forest with coniferous being the dominant feature. These are also interspersed with transitional woodland and scrub. In the mid and south Louth region's there are scatterings of forestry areas also including coniferous, transitional woodland, scrub and broad leaved forest. As is evident from the CLC Map, County Louth does not contain a large expanse of land use dedicated to forestry.

2.2.4 Landscape Character Assessment

The GI Strategy recognises the need for Landscape Character Assessment provision. One of its objectives is to promote the protection and management of the landscape character and provide enhanced landscape settings for the built environment to ensure that new development respects and blends into its surroundings.

The Louth Landscape Character Assessment (2002) identified 9 distinct character areas. These areas have been illustrated and detailed in Table 2 and Map 3.

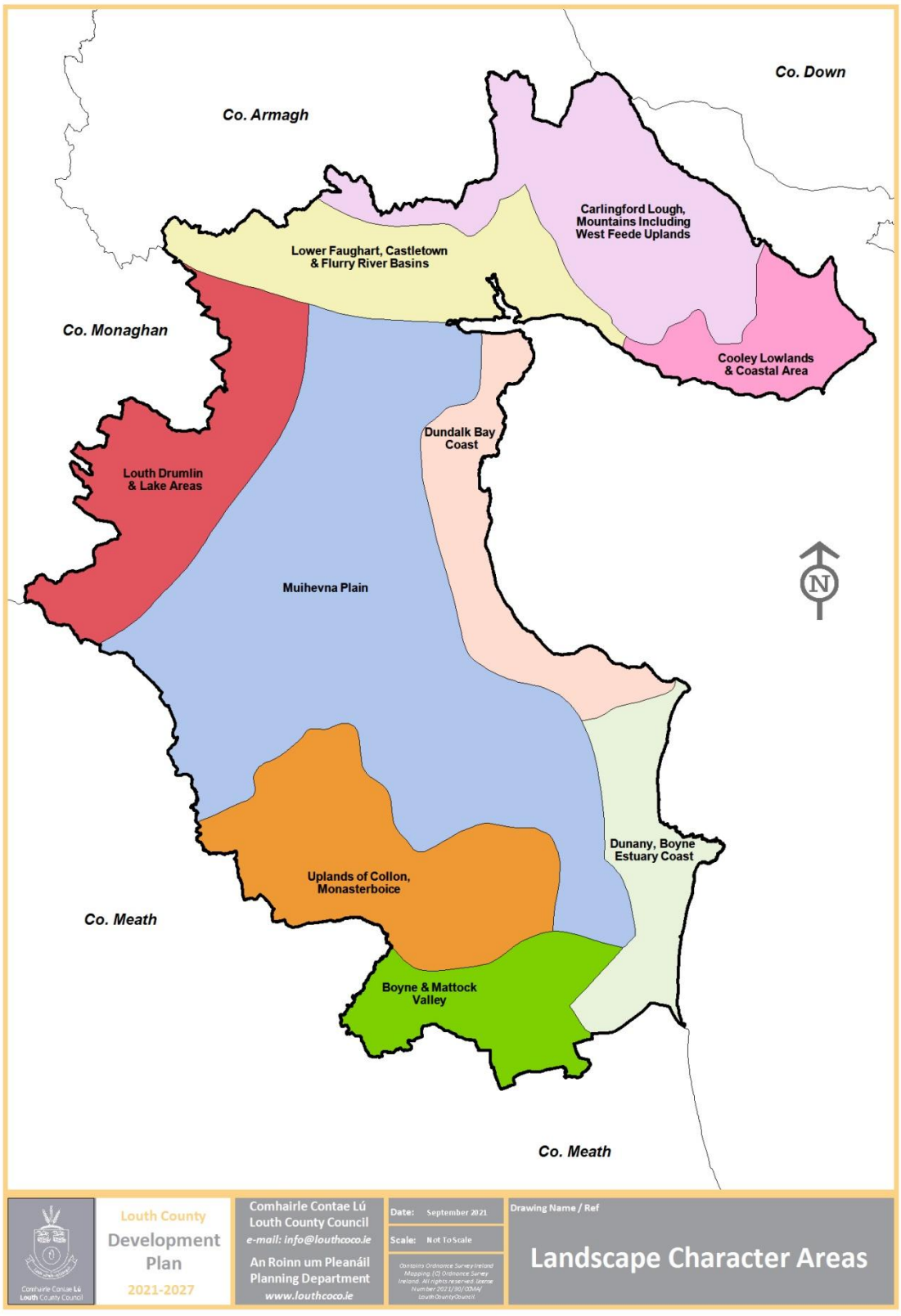
Applying the Landscape Character Assessment to the Green Infrastructure Strategy is advantageous in relation to proposed large scale development in areas of high scenic quality.

These landscape character areas have been transcribed in the development plan through the designation of two distinctive areas. These areas have been afforded local protection through the policies of the Development Plan where the character of each of the landscapes should not be unduly damaged. Areas of High Scenic Quality (AHSQ) and Areas of Natural Outstanding Beauty (AONB) have been designated for protection as sensitive areas in the Development Plan based on the Landscape Character Assessment.

Table 2: Landscape Area Classification

International	**Carlingford Lough and Mountains including West Feede Uplands**
National	Boyne and Mattock Valley.
Regional	Dundalk Bay Coast, Dunany to Boyne Estuary Coast. Uplands of Collon and Monasterboice.
Local	Cooley Lowlands and Coastal Area. Lower Faughart. Castletown and Flurry River Basins. Louth Drumlin and Lake Areas. Muirhevna Plain.

Map 3: Landscape Character Areas



2.3 BLUE INFRASTRUCTURE

2.3.1 Wetlands and Watercourses

The inclusion of the wetlands and watercourses within this Strategy is important for connectivity from the coastline into the wider countryside. This is typically referred to as Blue Infrastructure. The protection of riparian corridors abutting watercourses can further integrate linear corridors into the ecological network. Attenuation ponds, swales and reed beds provide many advantages including:

- Natural ways to reduce flood risk;
- Provide temporary storage;
- Improve water quality;
- Create wetland habitats for wildlife in an attractive aquatic setting; and
- Provide additional potential for accessible leisure facilities.

It is a policy of the local authority to implement the EU Water Framework Directive (WFD). Louth falls within two river basin districts namely:

- Neagh Bann River Basin District (NBRBD), and
- Eastern River Basin District (ERBD).

Water management plans for good future coastal and estuarine water for the two districts must be adhered to.

The rivers listed below must be protected and supported within a green infrastructure strategy to allow movement and flow of species and habitats throughout the county.

Table 3: Main Rivers of County Louth

Location	Rivers	Qualities
North Louth	River Big	Flows from Carlingford Mountain and enters into Dundalk Bay.
	River Flurry and River Ballymascanlon	Source at Ravensdale and enters into Dundalk Bay at Bellurgan embankment.
Dundalk	Castletown River	Flows into Dundalk Bay at the mouth.
South Dundalk	River Fane	Runs from Knockbridge and enters Dundalk Bay south of Blackrock Village.
South Louth	River White, Dee and Glyde	The River White and Glyde connect to the River Dee to enter Dundalk Bay.
	Termonfeckin River	River enters the Bay at Termonfeckin.
	River Boyne	Mattock River flows from Meath and enters the bay at Drogheda.

2.3.2 Wetland Survey

Wetlands include watercourses and water bodies as well as other habitat types including fens, heathland, cutaway and other areas such as coastal and estuarine salt marshes, dune slacks etc. which are influenced by the marine.

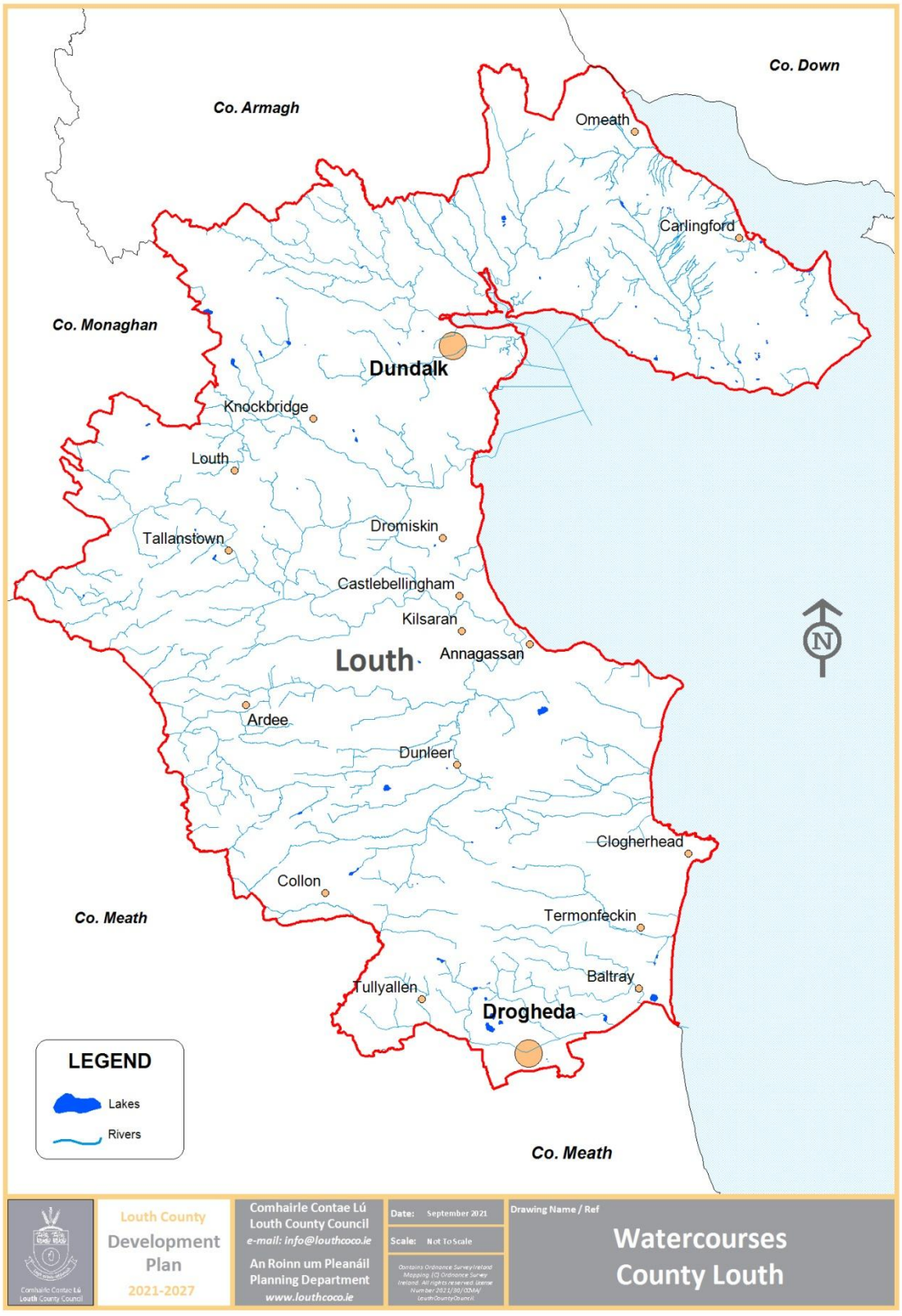
They tend to have a high biodiversity value supporting a variety of habitats and species, function in the protection of water quality and/or flood control, serve as important carbon stores contributing to climate resilience, filter pollutants and provide potential recreational opportunities.

While many protected areas include wetlands, most wetland areas occur outside protected sites. Globally, wetlands are protected by the Ramsar Convention. Within Louth, only Dundalk Bay is listed as a Ramsar site. However, it should be noted that in County Down, the northern section of Carlingford Lough, which is a shared site, is also listed under the Ramsar Convention. Many of the SACs and SPAs in County Louth referenced previously and above, are wetlands.

Louth County Council, with funding from the Heritage Council, commissioned a survey of all known and potential wetlands in the county. This Louth Wetland Survey was a three year project (2011, 2012 and 2014), which determined the wetland status of approximately 308 sites, considered likely to support wetland habitats on the basis of underlying soils, topography, historical mapping and aerial photography. The survey documented the location, extent, threats facing and conservation ranking of virtually all the wetland sites in the County, in addition to presenting recommendations for their maintenance, management and conservation.

Details of the mapped sites, their ranking and associated written reports can be accessed on the Louth County Website at the following links: Louth Wetlands 2011, Louth Wetlands 2012, Louth Wetlands 2014

Map 4: Watercourses, County Louth



2.3.3 Coastline

The coastline of Louth stretches from the County Armagh border, through Carlingford Lough, Dundalk Bay and as far as the Boyne Estuary south of Drogheda. The coastline is an important resource to protect and is one which is also subject to erosion from sea level rises due *inter alia* to climate change. Our existing coastal protection measures are located along the coast line at Blackrock, Salterstown, Port Beach, Baltray and Bellurgan. In addition, further measures may be required at other locations as the need arises.

Section 10 (2) (n) of the Planning and Development Act 2000 (as amended) highlights the need to reduce the overall quantity of anthropogenic greenhouse gas emissions and to address the necessity of adaptation to climate change. With climate change, sea levels will rise and increased storm intensity and surge will affect wetlands and coastal communities.

The use of green infrastructure and its protection can alleviate some of the impacts associated with climate change by, for example, integrating solutions for flooding. National guidance can be incorporated into this strategy to provide a stronger, clearer process for climate-change proofing of the Development Plan. Mitigation measures such as green building measures and less carbon intensive forms of development and adaptation measures such as flood risk assessment can be referenced.

2.4 BIODIVERSITY

The support and protection of biodiversity is critical to the function of green infrastructure. The protection of habitats and species is an integral part of this Strategy. The habitats and species have been listed according to their importance both at a European Level and national Level. The green infrastructure network aims to support both designated wildlife and other habitats of local importance.

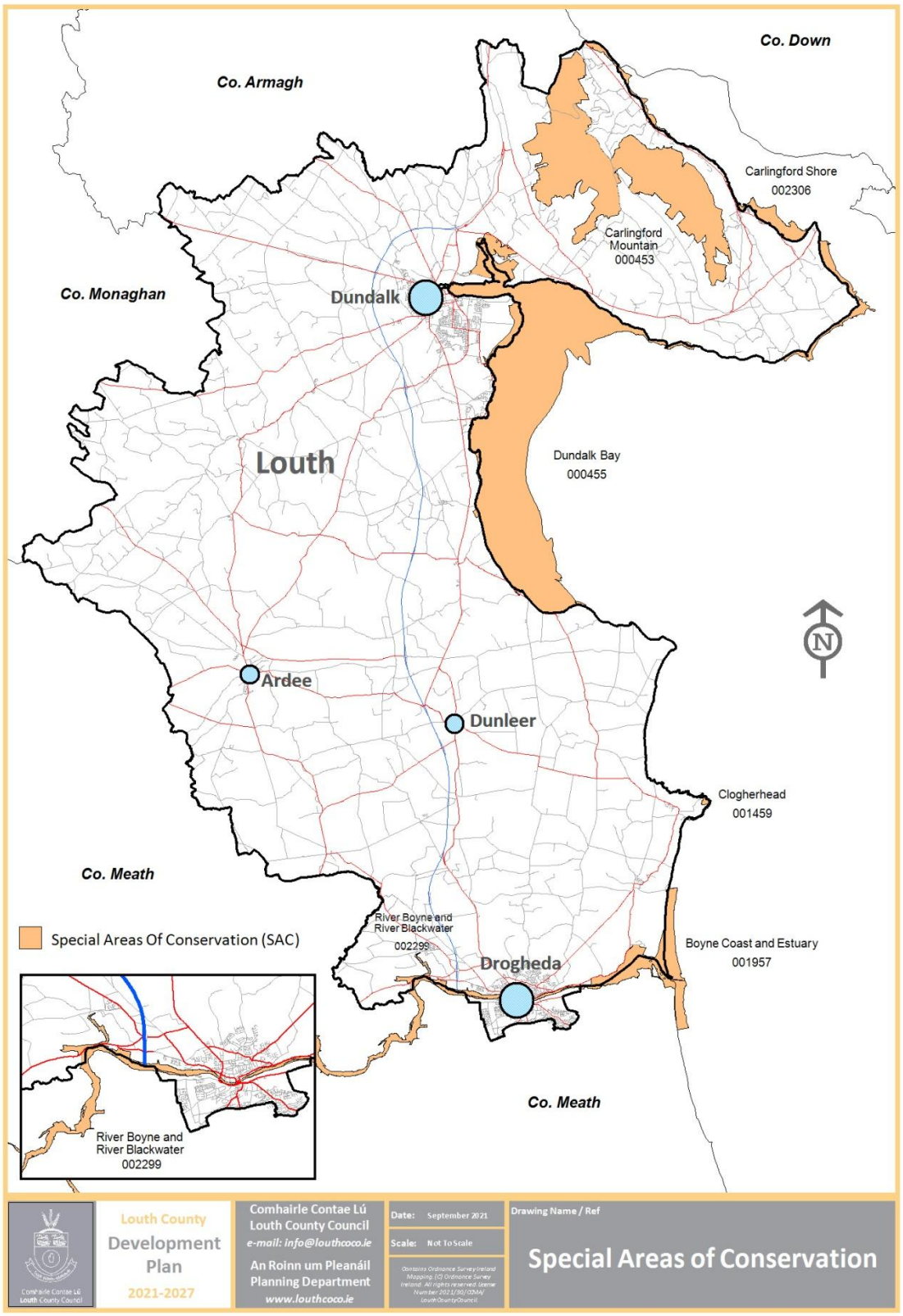
2.4.1 European Sites

Louth has 11 European Sites which have been protected under the *EU Habitats Directive (Council Directive 92/43/EC*) and the *European Community Birds Directive (Council Directive 79/409/EC*) as per Table 4. These sites are identified as 'Core Areas' for the purposes of the green infrastructure strategy and the movement and flow of species between these core areas into the adjoining open countryside, is of high importance.

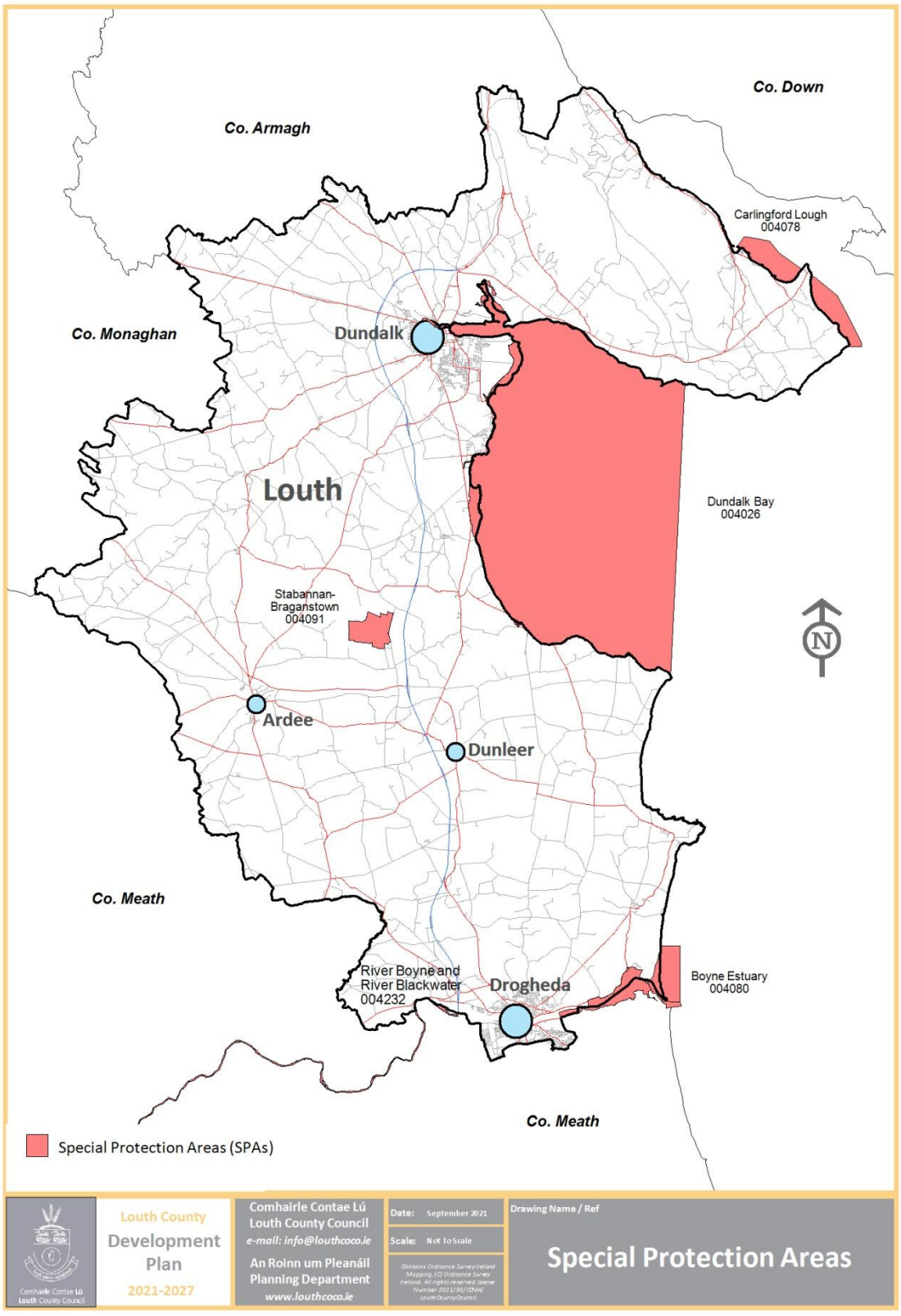
Table 4: List of European Sites within County Louth

Name SAC	Site Code	Designation	Name SPA	Site Code	Designation
Dundalk Bay	000455	SAC Coastal /Estuarine	**Dundalk Bay**	004026	SPA Coastal /Estuarine
Carlingford Shore	002306	SAC Coastal	**Carlingford Lough**	004078	SPA Coastal
Carlingford Mountain	00453	SAC Mountain	**Stabannan–Braganstown**	004091	SPA Alluvial Plain
Clogherhead	001459	SAC Coastal	**Boyne Estuary**	004080	SPA Coastal/ Estuarine
Boyne Coast and Estuary	001957	SAC Coastal	**River Boyne and River Blackwater**	004232	SPA Estuarine
River Boyne and River Blackwater	**002299**	SAC Estuarine			

Map 5: Special Areas of Conservation (SAC)



Map 6: Special Protection Areas (SPAs)



2.4.2 National Parks and Wildlife Service Conservation Plans

The National Parks and Wildlife Service (NPWS) are the competent authority for the purposes of regulation and control of operations within the European Sites. Each European Site includes conservation objectives for which either the SAC or SPA is listed and full details in this regard are available on the NPWS website.

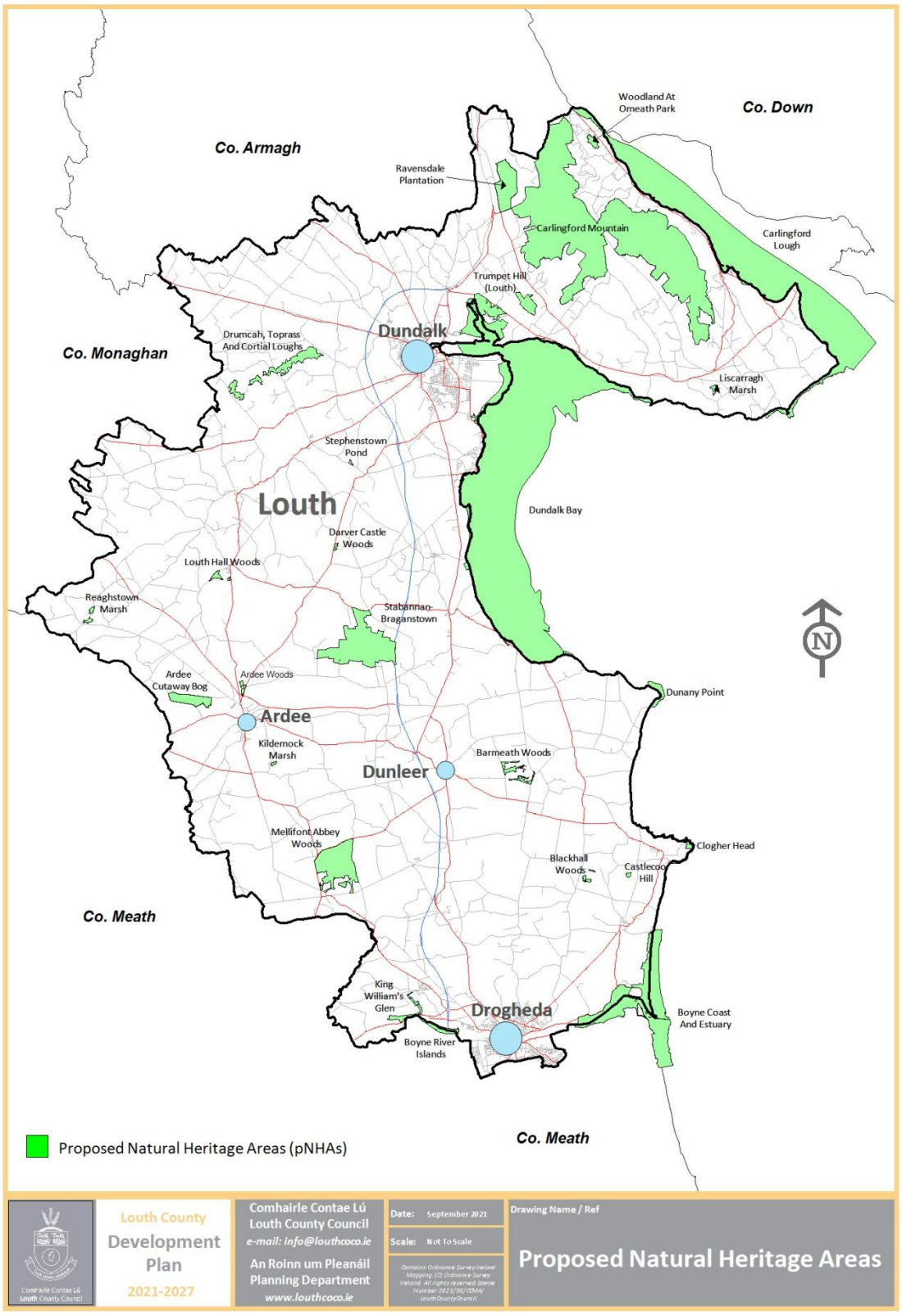
2.4.3 Proposed Natural Heritage Areas (pNHAs)

The Louth County Development Plan 2021-2027 includes 24 proposed Natural Heritage Areas (pNHAs). These areas have been identified by the NPWS and include sites which are of outstanding national importance for the natural environment. These are outlined in Table 5 and Map 7 below. These sites can be integrated into a coherent green infrastructure strategy for Louth and support a resilient ecological network.

Table 5: Proposed Natural Heritage Areas (pNHA)

Ref.	Location	Ref.	Location
NH1454	Ardee cutaway bog	**NH 455**	Dundalk Bay
NH1801	Barmeath Woods	**NH1806**	Kildemock Marsh
NH1293	Blackhall Woods	**NH1804**	King Williams Glen
NH1957	Boyne Coast and Estuary	**NH1451**	Liscarragh Marsh
NH1862	Boyne River islands	**NH1616**	Louth Hall and Ardee Woods
NH452	Carlingford Lough	**NH1464**	Mellifont Abbey Woods
NH453	Carlingford Mountain	**NH1805**	Ravensdale Plantation
NH1458	Castlecoo Hill	**NH1828**	Reaghstown Marsh
NH1459	Clogherhead	**NH456**	Stabannan- Braganstown
NH1461	Darver Castle Woods	**NH1803**	Stephenstown Pond
NH1462	Drumcah, Toprass and Cortial Loughs	**NH1468**	Trumpet Hill
NH1856	Dunany Point	**NH1465**	Woodland at Omeath Park

Map 7: Proposed Natural Heritage Areas (pNHAs)



2.4.4 Important Protected Species within County Louth

Important species in Louth should be included in any green infrastructure analysis due to the importance for biodiversity and integration for decision making. Details are available in the Local Biodiversity Action Plan for County Louth 2021-2026.

2.4.5 Hedgerows

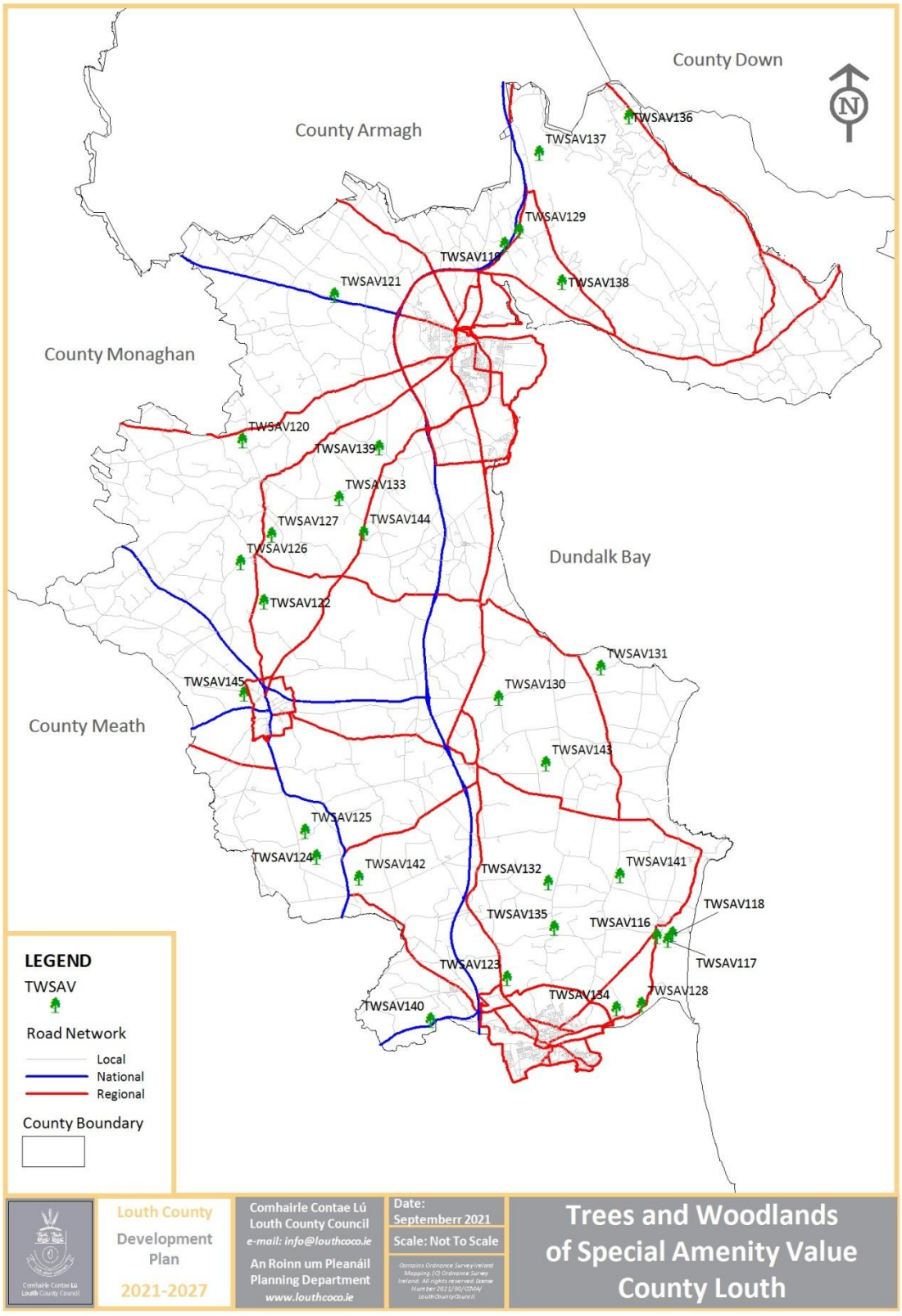
Hedgerows are an important element of the Irish landscape and provide an important wildlife habitat. Hedgerows host a wide range of plant and shrub species including insects, birds and mammals all of which combine to support green infrastructure. The retention of existing hedgerows and the promotion of native planting for replacement hedgerows supports habitats for animals which arable land or change in land use fails to support. The removal of a hedgerow for the provision of a one-off house represents a major pressure on hedgerow destruction. For this reason the retention of existing hedgerows is promoted and encouraged during the development management process.

Where however this is not possible any permitted replacement should be in the form of a variety of native species such as hawthorn and blackthorn with supporting species such as holly, hazel and wild cherry.

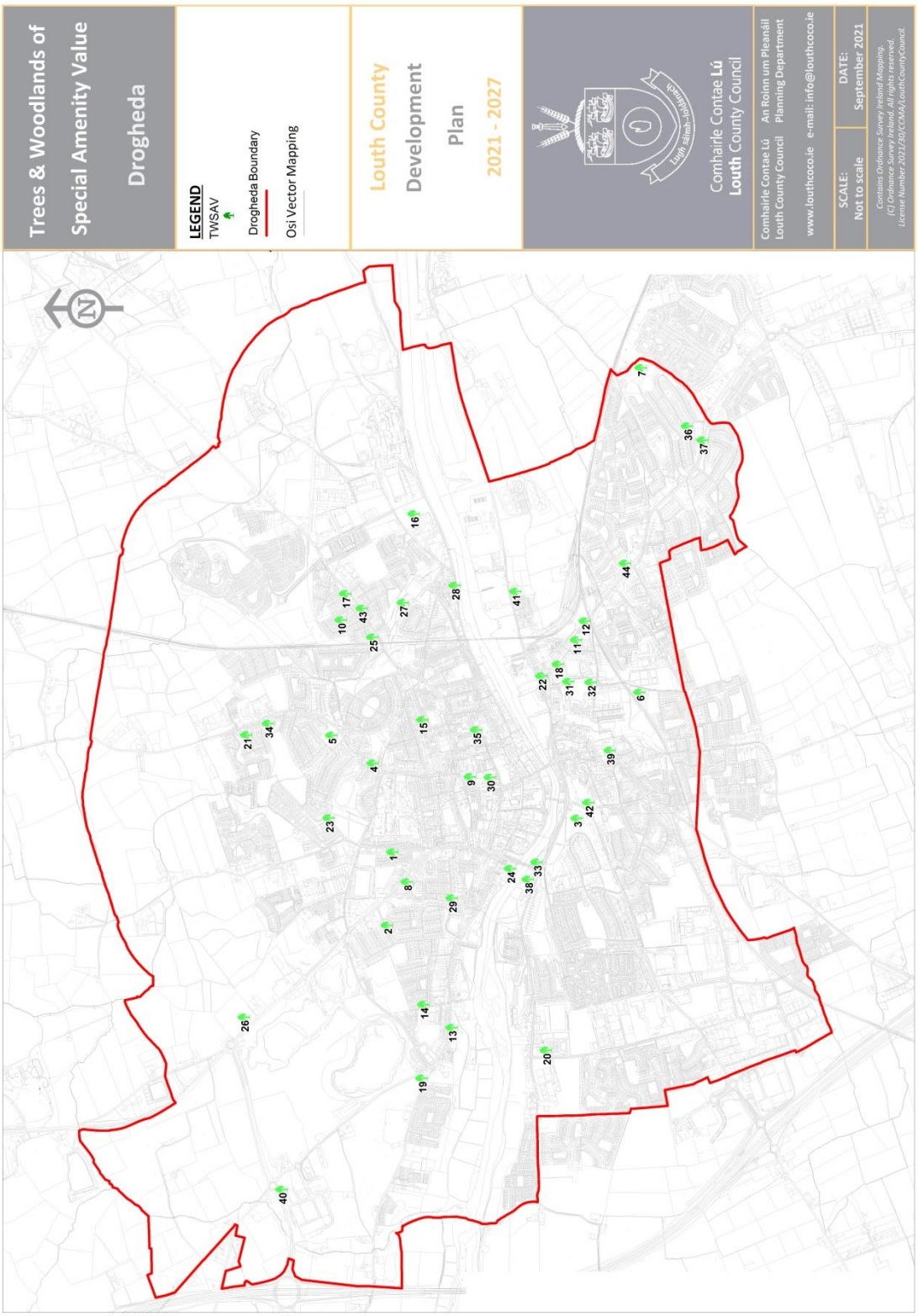
2.4.6 Trees

Trees, woodlands and hedgerows contribute greatly to Louth's natural landscape character and biodiversity. They provide visual amenity in the rural and urban environment, shelter and clean air, and important habitats for many species of wildlife. As high biodiversity habitats they are key for both climate mitigation and adaptation measures, playing a significant role in carbon storage. The County Louth Development Plan 2021-2027 currently includes details of the 6 Tree Preservation Orders made within the County in addition to a comprehensive listing of the Trees and Woodlands of Special Amenity Value all of which are detailed in Chapter 8.

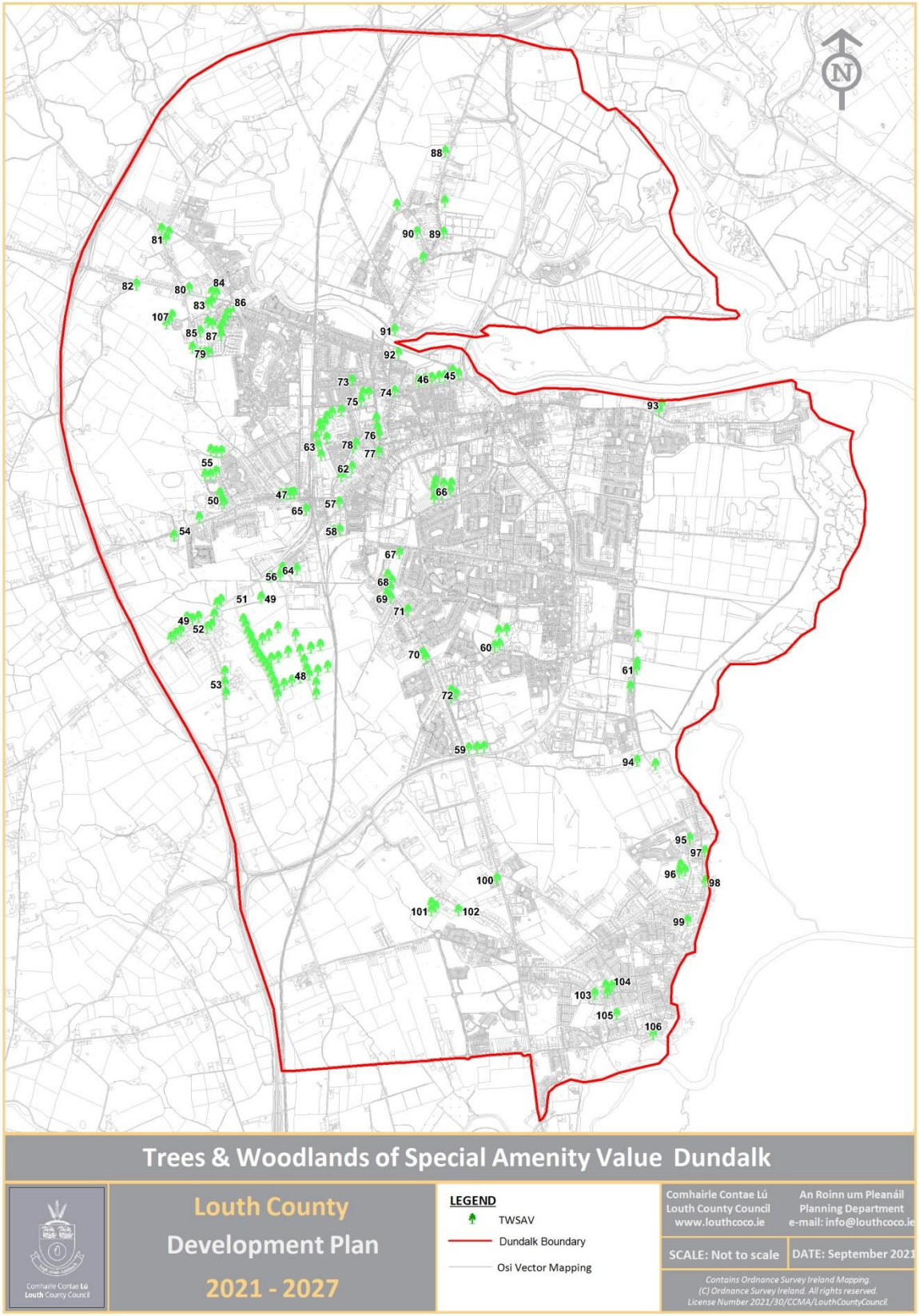
Map 8: Trees and Woodlands of Special Amenity Value in County Louth



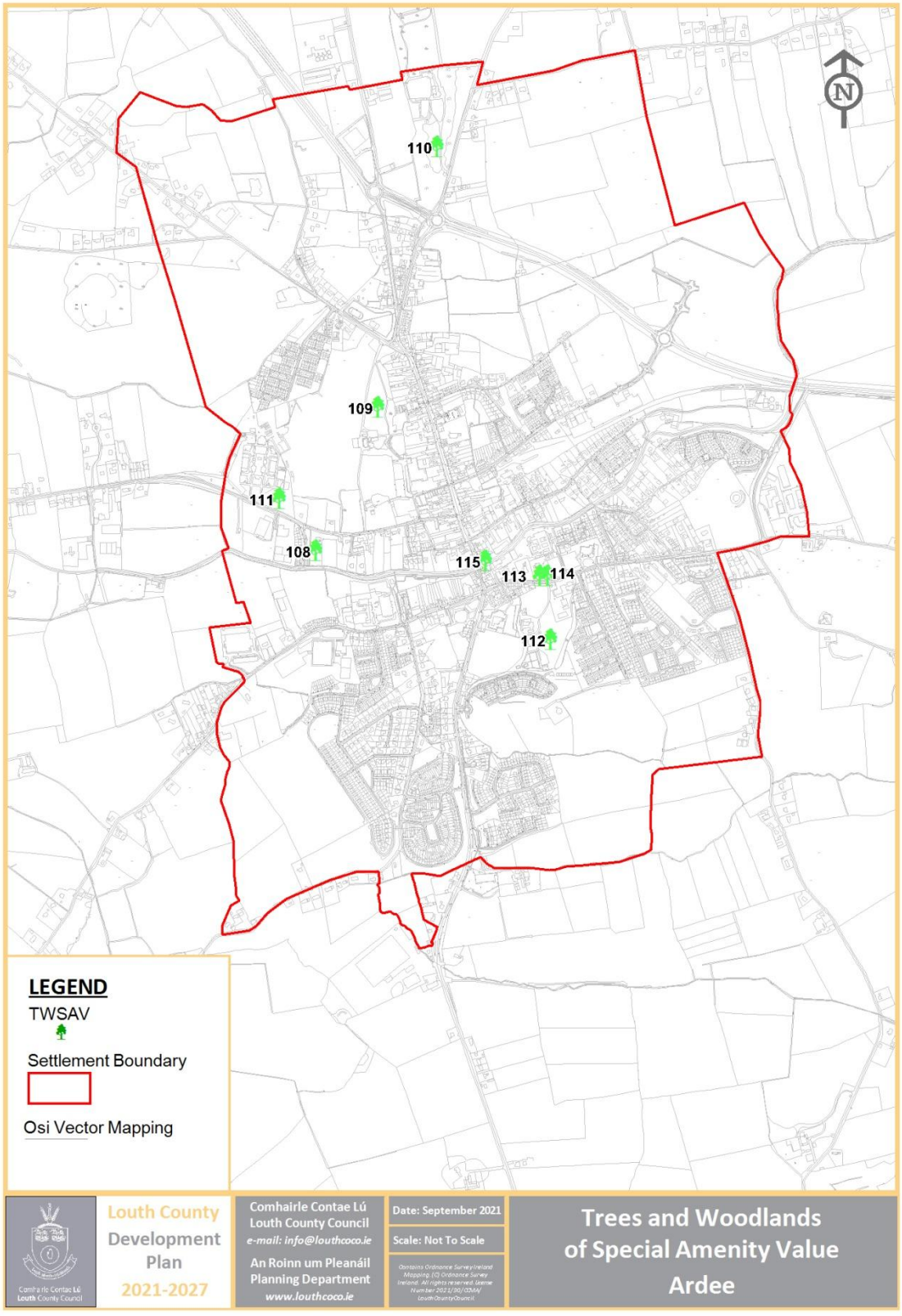
Map 9: Trees and Woodlands of Special Amenity Value in Drogheda



Map 10: Trees and Woodlands of Special Amenity Value in Dundalk



Map 11: Trees and Woodlands of Special Amenity Value in Ardee



2.5 BUILT HERITAGE

2.5.1 Built Heritage

Elements of the built heritage can make substantial contributions to green infrastructure. Built heritage sites that have value in relation to green infrastructure include e.g. heritage sites and gardens, designated landscapes and old graveyards.

2.5.2 Heritage Gardens and Designed Landscapes

The National Inventory of Architectural Heritage (NIAH) conducted a survey listing 93 Heritage Gardens and Designed Landscapes within County Louth. These are identified in Table 6.

Table 6: Historic Gardens & Designed Landscapes

Historic Gardens and Designed Landscapes			
A	Allardstown, Ardee District House, An Grainin, Arthurstown House, Anaverna House, Ashville	**B**	Ballymascanlan House, Beaulieu House, Black Hall Barmeath Castle, Bellurgan Park, Braganstown House Barronstown Rectory Beltichburne
C	Cardistown House, Castletown House Claret Rock House, Coolestown Stud, Corderry House, Carstown, Catherines Grove, Clermont Park, Corbollis House, Castlebellingham Charleville, Clonaleenaghan House	**D**	Darver Castle, Doolargy House, Dromiskin House, Dun Luighaidh Convent, Dellin House, Dowdstown House, Drumcashel House, Dunany House, Derryfalone House, Dromin, Drummullagh House
G	Glyde Court	**H**	Harristown House
I	Icehouse Hill Park,	**K**	Kildemook House, Killin, Killincoole, Killineer House Kitallaght House Knockabbey Castle

Historic Gardens and Designed Landscapes			
L	Lisnawully House Louth Hall Lisrenny House Listoke House	**M**	Maine House Monasterboice House Mount Bailey Milestown House, Monavallet House Mount Oliver Convent Milltowngrange House Mooremount House
N	New Mellifont Abbey Nootka Lodge Newtown Darver Newtown House	**P**	Park Hotel Piperstown House Park Inn Hotel, Prospect Philipstown House
R	Rahanna House Rathcoole House Ravensdale House Rokeby Hall Rath House, Rathescar, Red House Rathbrist House Rathneestin House, Richardstown Castle	**S**	Shanlis House Smarmore Castle Hotel Stephenstown House Shortstone House, Spencer Hill, Stickillin House Shortstone West, St Marys Hospital Stone House
T	The Grove Thistle House Townley Hall	**W**	Williamstown House

2.5.3 Protected Structures and Architectural Conservation Areas (ACAs)

County Louth has a wealth of architectural heritage which constitutes an important element of our culture. The Local Authority has a legal responsibility to include a Record of Protected Structures (RPS) in its County Development Plan and this is available in Volume 4. Protected structures within a country setting can be supported by demesne landscapes and large curtilage areas.

Buildings of conservation interest may be grouped together and referred to as Architectural Conservation Areas (ACA's). An ACA is an area, group of structures, or a townscape which is of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or contributes to the appreciation of protected structures. There are currently 18 ACAs in Drogheda, 8 in Dundalk and 10 identified in the County area.

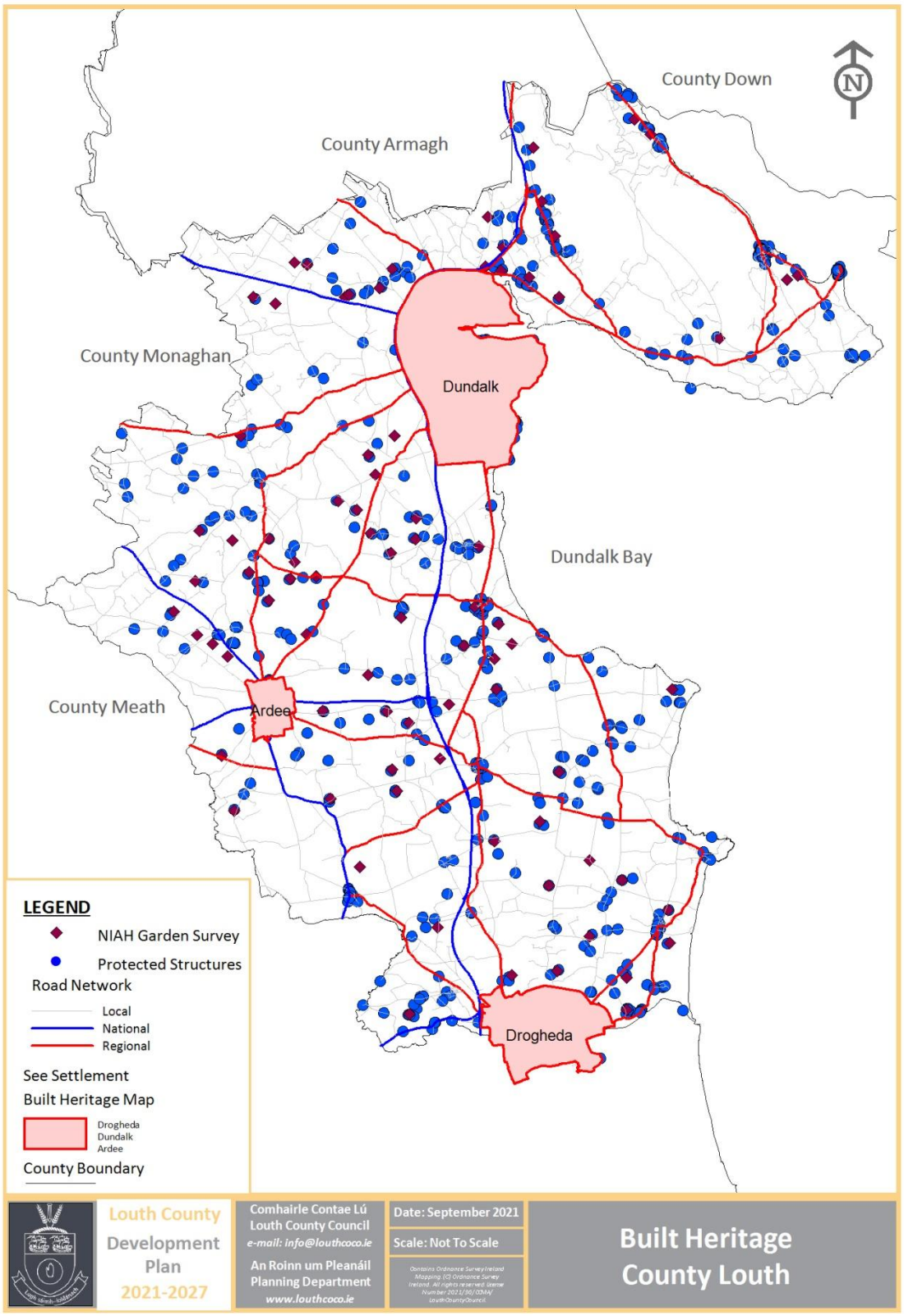
Details of the ACAs within the County are available in Chapter 8 and in Appendix 11 and 12, Volume 3.

2.5.4 Monuments and Archaeology

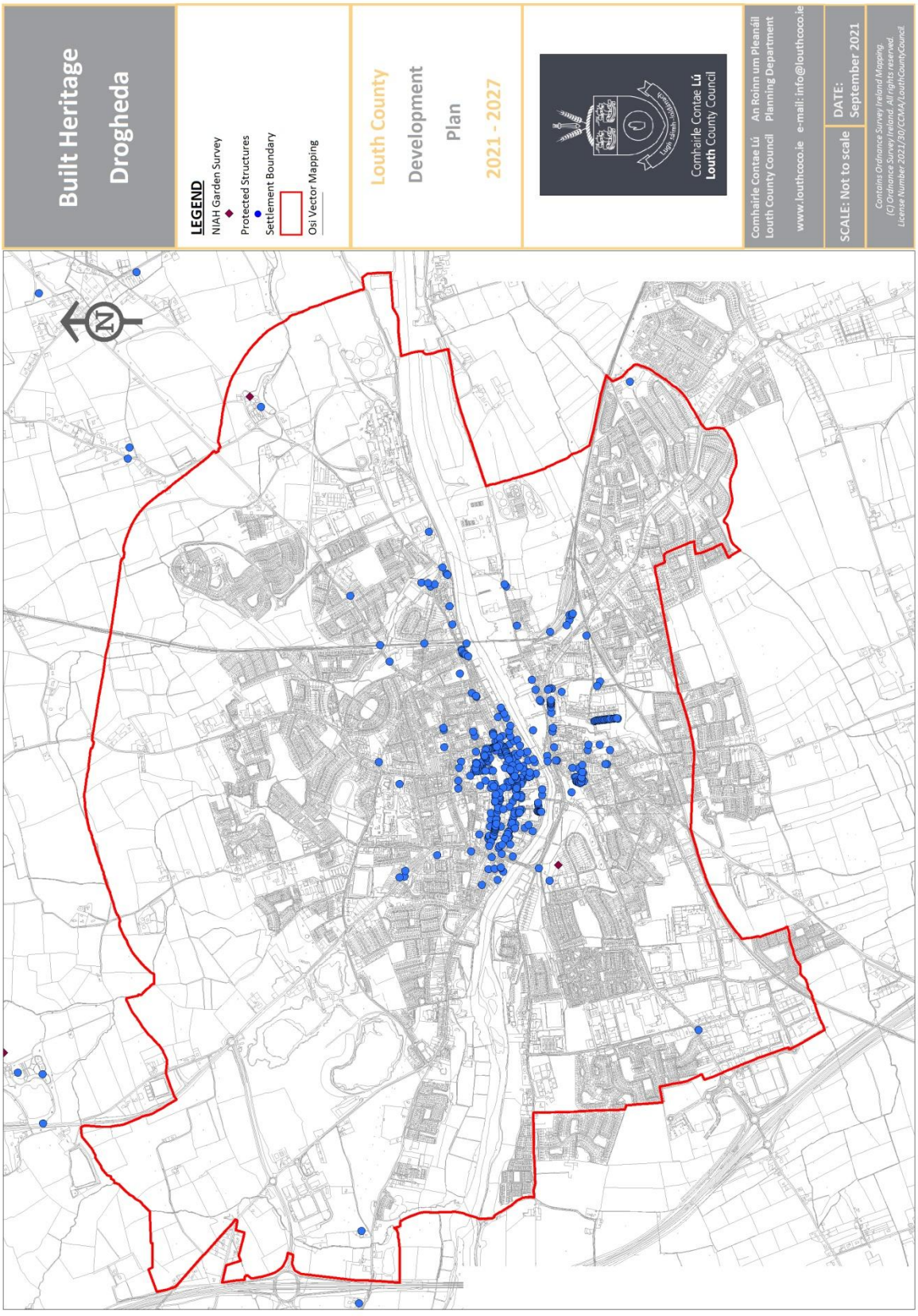
The Record of Monuments and Places (RMP) is the official record of archaeological sites and monuments in Ireland. Within County Louth there are in excess of 1,500 Recorded Monuments which are afforded protection under the National Monuments Acts.

Such monuments are vulnerable to change in land use and development. This finite resource is an important part of both our past and also our future. Portions of the Buffer Zone of the Brú na Bóinne UNESCO World Heritage Site and the Battle of the Boyne site in addition to the Tentative World heritage Site of Monasterboice are located within County Louth. Development and its impact on these important sites and the surrounding areas must be considered into the future.

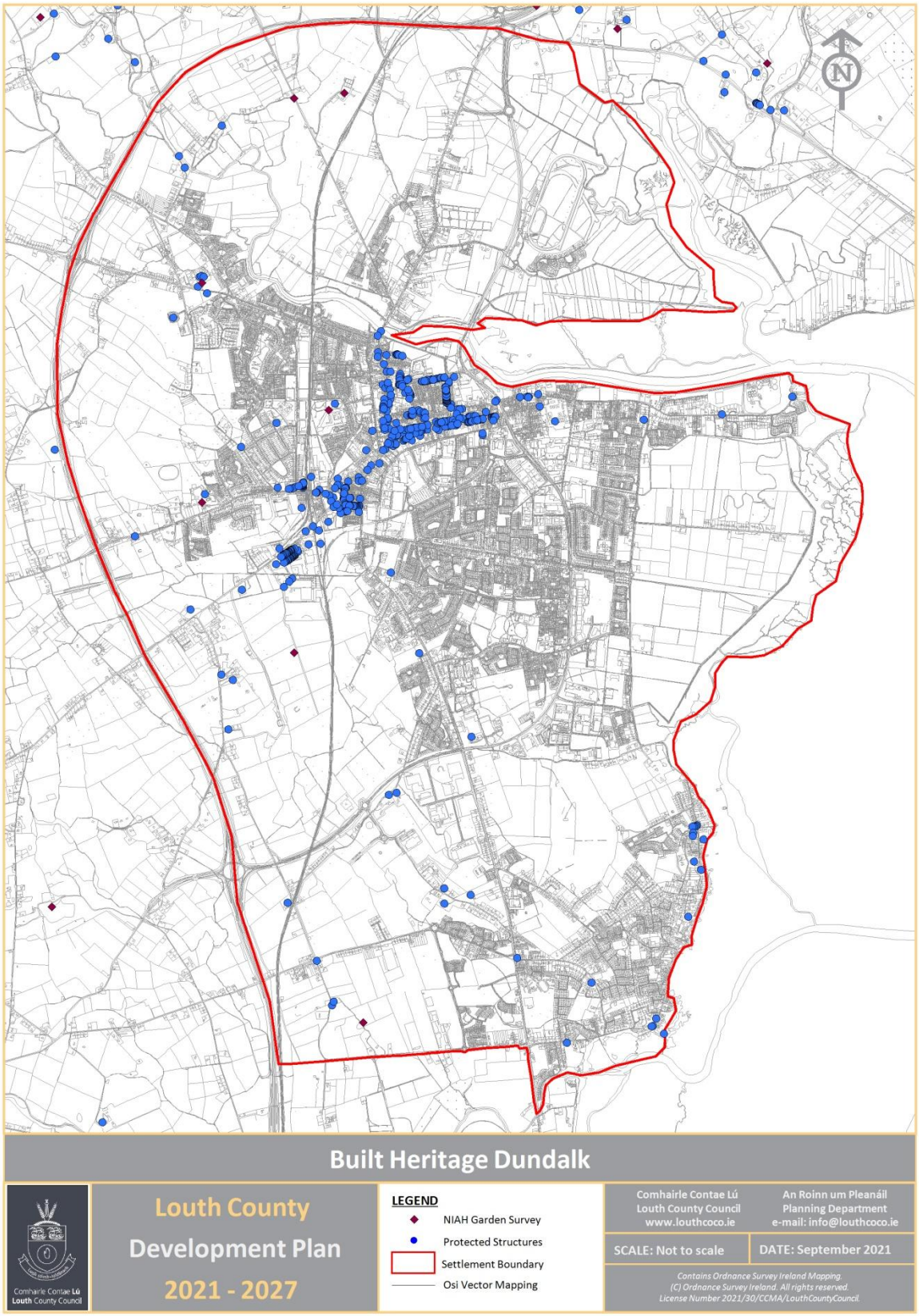
Map 12: Built Heritage – County Louth



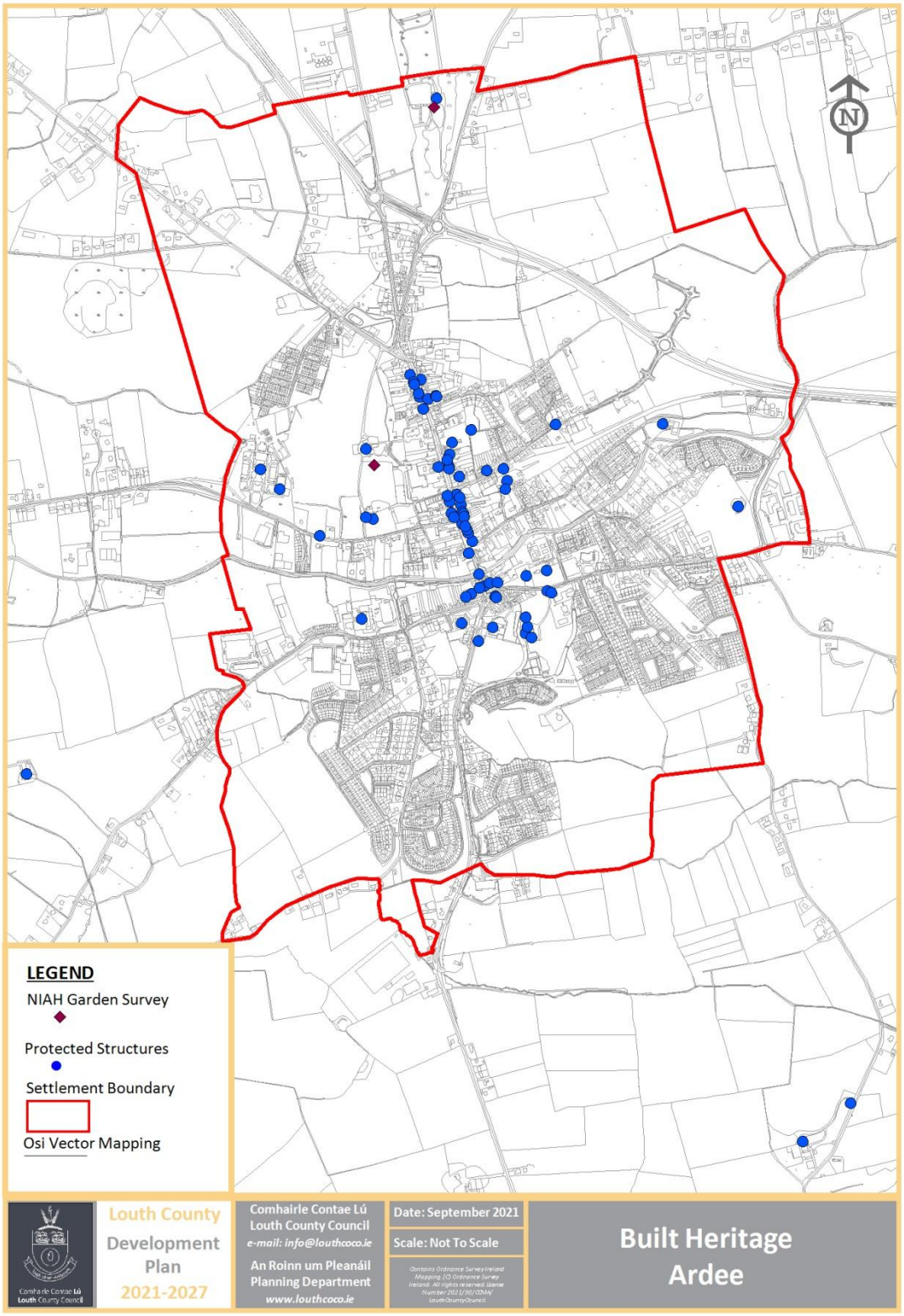
Map 13: Built Heritage – Drogheda



Map 14: Built Heritage – Dundalk



Map 15: Built Heritage – Ardee



3 GOING FORWARD: THE GREEN INFRASTRUCTURE STRATEGY

The Green Infrastructure Strategy aims to strengthen and/or create wildlife corridors between interconnecting core areas for the benefit of biodiversity, enhanced outdoor recreational opportunities, visual amenity and general wellbeing. This Green Infrastructure Strategy approach proposed for County Louth will consist of:

1. Support for the existing green infrastructure network;
2. Enhancement of green infrastructure throughout the five Level 3, Self-Sustaining Towns and the eight Level 4, Small Towns and Villages in the County;
3. Proposals for detailed green infrastructure in the LAP's for Drogheda and Dundalk;
4. Provision of guidance for support in spatial planning and integration of green infrastructure into local development proposals and throughout all relevant aspects of the Development Plan.

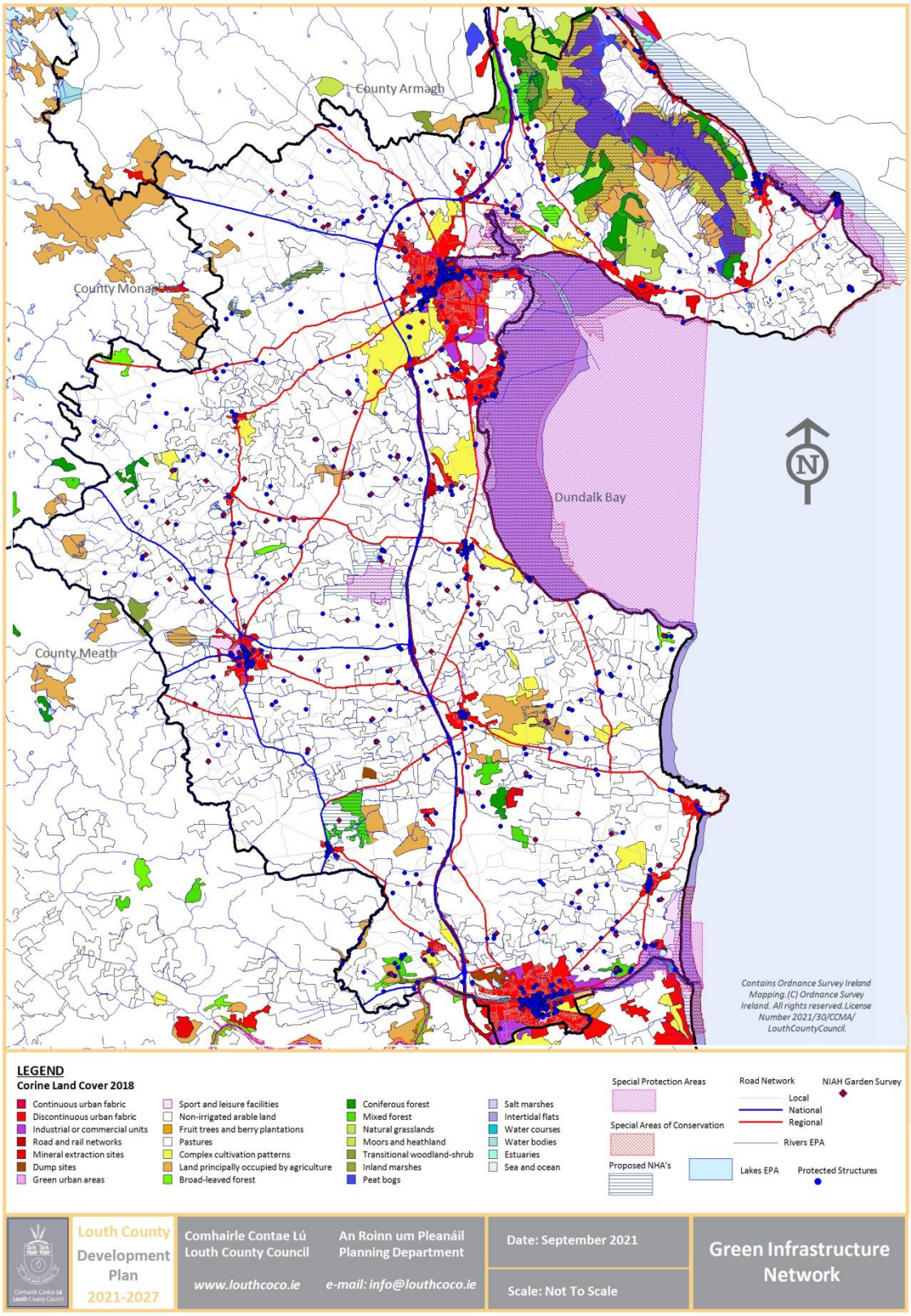
This green infrastructure strategy has been further detailed below.

3.1 GREEN INFRASTRUCTURE NETWORK

The interconnected ecological network which includes core areas, corridors, stepping stones and buffer areas comprises the Green Infrastructure Network for County Louth which is illustrated on Map 16. This represents the amalgamated environmental components from Section 2 of this strategy and provides a baseline assessment on a county wide basis. The green infrastructure network provides a strategic overview of the current linkages to be retained and protected.

Policy Objective	
GI 1	To support the green infrastructure network of County Louth and ensure its implementation in the assessment of all development proposals to prevent adverse impact on the ecological connectivity of County Louth's Core Areas.

Map 16: Green Infrastructure Network



3.1.1 Appropriate Assessment (AA)

Map 16 above is a tool which can be utilised to assist with the assessment of development proposals which may impact on European Sites for Appropriate Assessment (AA). The assessment of likely effects of a development proposal on a European Site (Special Area of Conservation (SAC) or Special Protection Area (SPA)) would consider the ecological connectivity of a proposed development site to a SAC/SPA.

Policy Objective	
GI 2	To require the use of and develop the green infrastructure network to ensure the conservation and enhancement of biodiversity and as a supplementary guide for the protection and conservation of the European Sites in County Louth.

3.2 Spatial Planning

The key accomplishment of a green infrastructure network is the provision of a new framework which identifies the constituent parts of the network and provides a strategic approach to land conservation, given the priority of the natural environment. Appropriate support measures will be made available for the natural environment through the following:

1. Prioritisation of lands within the core strategy;
2. Provision of green infrastructure strategies in the LAP's for Drogheda and Dundalk;
3. Enhance and support the green infrastructure strategy in Level 3 and 4 settlements in the Louth County Development Plan 2021-2027;
4. Support for Green infrastructure at local level decision making through all relevant sections/aspects of the Louth County Development Plan 2021-2027.

3.2.1 Core Strategy

The Core Strategy requires that lands are prioritised and compliant with the requirements of the following:

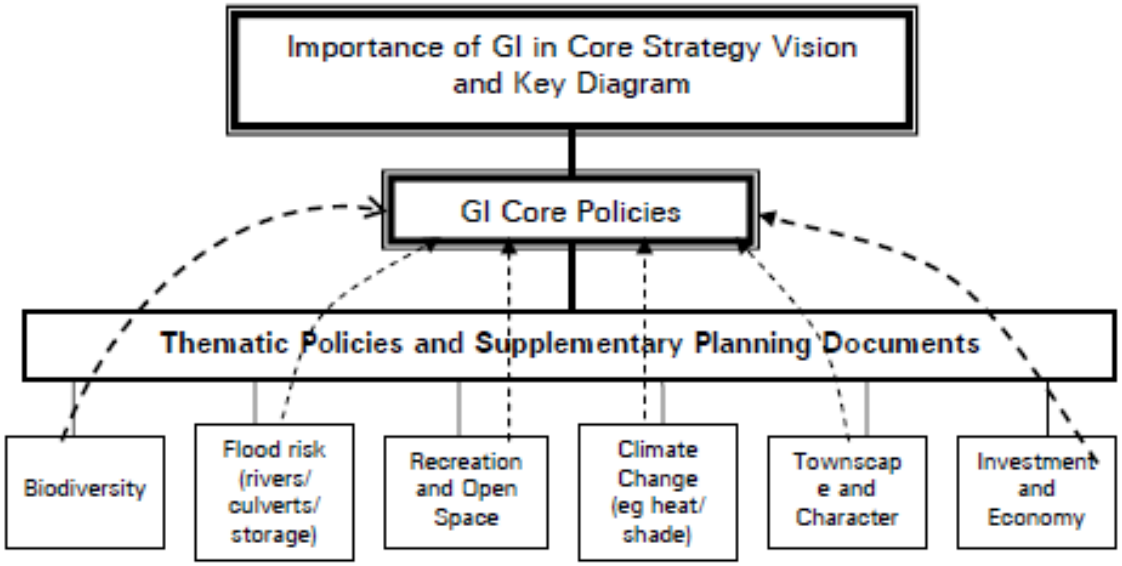
- Strategic Environmental Assessment (SEA 2001/42/EC); and
- The Water Framework Directive (WFD 2000/60/EC,);
- The Habitats Directive (HD 91/43/EEC) regarding the protection of Louth's natural environment.

The evidence based assessment of land allocation will support the GI Base and the overall network. See Figure 3 in relation to Core Strategy and integration and compliance with Green Infrastructure.

Residential lands shall be prioritised based on the availability of lands and sustainable development. The provision of valuable resources within urban areas and settlements will enable the prioritisation of lands for development.

Policy Objective	
GI 3	To utilise all information available on the Louth Baseline Assessment as evidence based decision making in the Louth Core Strategy

Figure 3: Core Strategy and Integration and Compliance with Green Infrastructure



3.2.2 Level 3 and Level 4 Settlements

The five Level 3 and eight Level 4 Settlements in County Louth were assessed for current green infrastructure and include features of interest such as the existing open space areas, those trees and hedgerows identified as having special amenity value and riparian corridors. Additionally, possible areas for potential upgrading of green infrastructure have been identified within these settlements as 'Areas for potential green infrastructure enhancement'. These areas should be used for development management decision making and integrated into proposed developments.

It should be noted that their inclusion does not prevent the promotion or development of other such areas for potential green infrastructure.

Table 7 provides an overview of the green infrastructure in the five Level 3 and eight Level 4 Settlements and should be read in conjunction with the composite maps associated with each individual settlement and available in Volume 2. Development management proposals within these settlements should be assessed having regard to the Development Management Guidance in Section 3 of this strategy.

Table 7: Assessment of Green Infrastructure within the Level 3 and 4 Settlements

Settlement	Features of Interest	Potential for Green Infrastructure Enhancement
Annagassan	River Glyde; Coastline; SAC/SPA; Strategic reserve and 4 areas of designated public open space.	Protection of coastline; Riparian corridor retention Additional supporting planting along the road lines, between open spaces and into the countryside.
ACTION A. Roadside planting schemes along the main road. Important hedgerows, if removed, to be integrated into any submitted design.		
Baltray	Coastline; SAC/SPA; Open space network throughout the settlement.	Core area (Natura site) with ecological corridors retained along road frontages and into the countryside.
ACTION A. Promote connectivity between the coastline and public open space within the village of Baltray. B. Retain current roadside planting along a main route in Baltray and promote the enhancement of additional planting.		
Carlingford	Coastal location; Large expanse of open space designation; Trees and views to be protected; Number of intact roadside treatments.	Core area of SAC/SPA along the coastline is to be supported by open space designations and ecological networks via trees and hedgerows.
ACTION: Protect central open space designation and support the connectivity into the countryside. Protect roadside hedgerows and any appropriate relocation.		
Castlebellingham & Kilsaran	River Glyde through the village; Large expanses of designated open space lands;	The central village area is lacking in greenspace or planting and would benefit the overall quality and public realm through more interconnectivity.
ACTION A. Additional supportive planting throughout the village centre to link the river and countryside.		
Clogherhead	Area of Outstanding Natural Beauty (AONB) SAC/pNHA Public open space	There is very little quality green infrastructure within the Clogherhead settlement and integration into any future upgrade is essential.
ACTION: Retention of AONB for the preservation of the natural environment and provision of street planting throughout the centre where possible.		
Collon	Presence of New Mellifont Abbey Woods pNHA, Abundance of trees proposed to be protected within the centre. The presence of stone walls and banks.	Roadside planting along identified growth areas out of the centre; Protection of green spaces and riparian corridors.

Settlement	Features of Interest	Potential for Green Infrastructure Enhancement
ACTION A. Inclusion of roadside planting and native planting schemes within any proposed developments.		
Dromiskin	Expanses of strategic land reserve with mature planting and hedgerows; Open space, places of worship and graveyards located close,	Native planting and enhancement schemes.
ACTION A. Integration of green infrastructure throughout the village centre providing connectivity.		
Knockbridge	Central provision of open space with abundance of mature hedgerows and mature trees.	Consolidation of GI within future enhancement schemes.
ACTION: Provision of open space in any residential development schemes.		
Louth Village	Abundance of open space and amenity throughout the village.	Provision of appropriate integration of proposals into future residential development.
ACTION: Roadside treatment detail and enhancement schemes at several locations throughout the village centre and main routes into the village.		
Omeath	SAC/SPA The Coastline, Adjoining pNHA.	Support for the core area and protection of green routes through into the countryside.
ACTION: Central spine of the village requires upgrade to allow for connectivity and environmental enhancement.		
Tallanstown	River Glyde flows through the central area with important riparian corridors. Good quality open spaces; Important hedgerows and trees.	Protection of existing important biodiversity areas.
ACTION: Integration of existing native landscaping schemes into any development proposals.		
Termonfeckin	Riparian Corridor, Public open space and domain, Biodiversity enhancement schemes; Protection of trees and hedgerows.	Protect the existing green infrastructure network throughout the settlement.
ACTION: Additional roadside boundary treatment.		
Tullyallen	Adjoining SAC/SPA; Abundance of open space provision.	Protection of open space to allow the support and connectivity of core areas
ACTION A. Roadside boundary treatment.		

Policy Objective	
GI 4	To support the existing features of interest in the Level 3 and Level 4 Settlements of County Louth and promote and facilitate any areas identified for green infrastructure enhancement.

The following features of interest should be supported, not only within the identified settlement areas but also outside of these boundaries and throughout the countryside.

Riparian Corridors: A riparian corridor is a unique area along a river, stream, lake or waterbody which serves to support the natural environment through:

- Preserving water quality by filtering sediment from run-off prior to entering rivers and streams;
- Protecting stream banks from erosion;
- Providing a storage area for flood waters;
- Providing food and habitat for fish and wildlife; and
- Preserving open space and aesthetic surroundings.

Riparian corridors are fragile areas which are recognised for their contribution to green infrastructure.

Policy Objective	
GI 5	To ensure that no development including clearing or storage of materials takes place within a minimum distance of 10m measured from each bank of any river, stream or watercourse

Landscape Features: Landscape features of importance in each of the settlements have been listed and these can form an essential part of an ecological network within an overall context. These features include trees, hedgerows, stone walls and Louth banks which have special amenity value.

These features shall be retained in any proposed developments and in any event where this is not possible, the Planning Authority will require the relocation of stone walls and/ or planting of hedgerows and trees.

Policy Objective	
GI 6	To incorporate all identified stone walls into development proposals. Where retention of the stone wall is not feasible there shall be a requirement to rebuild the stone wall at an alternative, suitable location.

3.2.3 Level 1 Settlements: Drogheda and Dundalk

In addition to the overall green infrastructure network of the County, an in-depth assessment of the features of interest in urban areas can further support quality of life. Additionally, green infrastructure baseline assessments will be provided for in the LAPs for Dundalk and Drogheda following the adoption of the Louth County Development Plan 2021-2027 and the subsequent review of these plans.

Objectives to be included within the LAPs will enhance the quality of life of the residents by affording support for existing and proposed green infrastructure.

These objectives for the identified urban areas will be comprehensive in nature and will be based on the following strategic objectives:

1. To create a high quality, well-connected and sustainable natural environment of green spaces and watercourses based on linkages by footpaths and cycleways;
2. Promotion of a high quality, well-connected and sustainable urban area with flexible, multi-functional places to enhance local distinctiveness and character for e.g. use of trees and planting within public spaces;
3. Protection of high value habitats and support for the enhancement of habitats of local importance; and
4. Integration of green infrastructure features to combat climate change impacts and flood control such as green corridors, green roofs and native planting.

Table 8 provides an example of the objectives which may be included within the identified LAPs and which may transpire as policies and actions for the urban areas. The delivery of these features and green infrastructure should also be linked into operational plans for these areas.

Table 8: Objectives to be included for LAPs

Feature	Green Infrastructure
Greenways	Provision of planting schemes in conjunction with planned pedestrian and cycle routes. Where these are planned within landscaped areas caution will be taken to retain mature planting already in place.
Public Realm	The enhancements of existing public spaces as green infrastructure "hubs" which can encourage use of these areas by the public. Integration of green environments within hospitals and health centres.
Biodiversity	Planting schemes with regeneration schemes and roads infrastructure. The use of vacant and derelict land as set aside areas and/ or rewilding. Native planting required in all landscaping schemes for proposed developments.
Climate Change	Integration of Sustainable Urban Drainage Systems (SUDS) into all developments and policies to reflect this integration. Identified flood area to be addressed within the core strategy and used as an important aspect of the overall green infrastructure network for urban areas. Flood defence works should benefit the green infrastructure network.

Policy Objective	
GI 7	To prepare specific Green Infrastructure Strategies for the Regional Growth Centres of Drogheda and Dundalk and integrate into the Local Area Plan for each settlement.

3.2.4 Development Management Guidance

3.2.4.1 Development Proposals

Developments proposed at a local level have an opportunity to put strategic objectives into practice. These proposals may be further advanced within the LAP's but should not be precluded from any other areas within County Louth. Louth County Council promotes green infrastructure integration based on:

- Biodiversity;
- Landscapes;
- Open spaces, parks and recreation;
- Heritage; and
- Water management.

Following on from the green infrastructure baseline assessment, recommendations which can be included within any development proposals to enhance the environment should be incorporated and cognisant of the promotion and integration of green infrastructure to enhance the quality, character and design of the proposal.

Table 9 below can be used during the assessment of a development proposal. The advantage of this relates to the retention and enhancement of existing green infrastructure and supports these overall policies and objectives for enhancing the quality of life.

3.2.4.2 Environmental Enhancement

a) Assessment and enhancement of biodiversity features for development proposals should have regard to the following assessment included within Table 9.

Table 9: Summary of the Survey of Existing Biodiversity Features

Features	Description
Surrounding land cover and landscape character	The Corine Land Cover (CLC 2018) indicates that the Plan area includes land uses such as pasture, non- irrigated land, and discontinuous urban fabric and sport and leisure facilities. The Louth Landscape Character Assessment includes 9 areas of character which can help shape development proposals.
Connecting Features	**Green Networks:** Protection and/or integration of important hedgerows & treelines into development proposals. **Green Routes:** Inclusion of environmental enhancement features along the main connection route throughout urban areas and settlements in conjunction with green infrastructure such as cycle, pedestrian and bus routes.
Biodiversity Review	The inclusion of the green infrastructure assessment and proposals can provide great value for biodiversity and support movement of species. This includes the retention of valuable hedgerows, louth banks and nature corridors. They can be further enhanced by integrating with green routes, walkways cycleways etc. Louth is particularly rich with biodiversity due to its location along the coast, beside an SAC/ SPA, the number of amenity spaces, the existing and proposed recreational areas and the agricultural lands. Any development proposals should enhance rather than remove features of interest.
Integration of habitats	**Habitats:** Those of importance have been identified as green spaces or valuable habitats, as illustrated in the green infrastructure network and the settlement maps. They have the potential to contribute to the overall environmental quality of the Plan area, in addition to supporting the ecosystem services of the County. Any development proposals should integrate these habitats of importance according to *'A Habitat Guide in Ireland' (Fossit, 2000*). Valuable habitats can support the SPA, SAC and provide additional support areas and valuable ecosystem services by preventing fragmentation.
Features of Value	**Green Space:** Aside from the existing green spaces provided within the Plan area a number of additional areas are identified as features of value, as listed below. These should be retained and developed in tandem with future development proposals. **Public Green Space:** Public green space provision in the settlements can enhance the quality of life for the residents with additional open space areas integrated into residential areas. A centrally located park can provide a range of facilities and prove to be favourable with the resident's. It should be well located and supported by good linkages to surrounding areas and integration of additional planting. **Private Green Space:** Undeveloped areas and gardens can benefit public health by providing informal passive recreation opportunities. The opportunity exists to incorporate valuable private garden areas to enhance economic value of residential developments. **Trees:** A number of trees and groups of trees of value may be subject to a Tree Preservation Order. **Hedgerows:** Hedgerows of importance have been mapped as important green infrastructure and shall be retained and incorporated into any proposed development areas. **Wetlands & Watercourse:** Support the environmental qualities of the area and other features of value.

Policy Objective	
GI 8	All future development proposals shall require, within the overall design scheme, the integration of environmental assets and existing biodiversity features including those identified in Table 9 of the Green Infrastructure Strategy, to enhance the quality, character and design of the proposal.

3.2.4.3 Landscape Design and Planting

Land use planning objectives transferred into a development proposal can incorporate useable green infrastructure proposals for the benefit of the proposed developments.

The integration of appropriate landscape layout can be used in the first instance in any masterplan schemes or proposals such as those illustrated in Figure 4.

Figure 4: Masterplan Proposals and Links to Proposed Development from the City of Stockholm

Following on from the overall landscape design and support for the green infrastructure network, the detail provided should include native planting such as tree planting referred to in Table 10.

Table 10: Native Planting Scheme

Aspect	Detail
Tree Structure/ species-richness	Native trees to Ireland include : • Alder, Ash, Aspen • Birch Silver, Birch Downey • Cherrywild • Hazel, Hawthorn, Holly • Oak Pedunculate, Oak Sessile • Rowan • Scots Pine, Strawberry tree • Willow, Wych elm, • Yew. The species listed above should be included within any proposed planting development and further links are provided by the Tree Council in *"Our trees, a guide to growing Ireland's native trees".* The Native Woodland Scheme provides a grant to land owners eligible and partaking in the planting scheme. The scheme includes two elements. The first is for the protection and enhancement of existing native woodlands and the conversion, where appropriate, of existing non-native forests to native woodlands. The second supports the establishment of new native woodlands on greenfield sites. Element 2 is focused in particular on the following site types: • Sites within areas regarded as being particularly sensitive from an environmental, landscape or amenity perspective; • Sites located immediately adjacent or close to existing designated native woodland; • Sites that create physical connectivity between existing native woodlands and other important habitats.

3.2.4.4 Public Realm

Environmental enhancement schemes can be in the form of both public and private areas and good public realm is appropriate for all areas which members of the public may utilise. Schemes can include hard (street furniture/ paving) and soft (planting) options.

Green infrastructure benefits should be enhanced by soft schemes and landscape details should promote the flow of species throughout all areas.

The area included within a Business Improvement District (BID) can be used to deliver local business-led aspirations for 'Greening for Growth'. An attractive town centre environment can entice visitors in to shop, work and play, therefore increasing revenue for the local business.

The Market Square and Clanbrassil Street public realm enhancement has successfully transformed the central area of Dundalk as an attractive location for the public to gather. Figure 5 provides details of trees integrated into a townscape.

Figure 5: Example of Trees Integrated into the Townscape

(Source: Landscape Institute)

Policy Objective	
GI 9	To require the integration of green infrastructure and inclusion of native planting schemes in all development proposals in landscaped areas, open spaces and areas of public space.

3.2.5 Climate Change

3.2.5.1 Sustainable Urban Drainage System (SUDS)

SUDS assist with adaptation measures and ensure that proposed developments can deal with any severe climate changes. It can alleviate storm surges and increased surface run off.

3.2.5.2 Flood Risk Assessments

Flood risk assessments of any spatial plan shall identify areas at risk of flooding as per '*The Planning System and Flood Risk Management Guidelines for Planning Authorities 2009'.* These guidelines require that planning authorities shall:

- Identify whether and the degree to which flood risk is an issue,
- Identify flood zones (if not already available),
- Inform decisions in relation to zoning and planning applications,
- Develop appropriate flood risk mitigation and management measures for development sited in flood risk areas.

Green infrastructure can be supported through the planning process for flood areas. Flood defence measures should not adversely affect the movement of green infrastructure by unnecessary fragmentation.

3.2.5.3 Sustainable Development Patterns

The promotion of sustainable settlements and transportation strategies throughout County Louth can:

- Reduce energy demand,
- Reduce anthropogenic greenhouse gases, and
- Address the necessity of adaption to climate change.

Green Infrastructure proposals can be supported in these strategies through the provision of greenways and support for green infrastructure.

Policy Objective	
GI 10	To require the integration of climate change mitigation measures in any future spatial plans and climate change adaptation measures in proposed developments.

4 CONCLUSION

Green infrastructure support and provision can manifest itself in many forms throughout the countryside, through settlements and in urban areas. This Strategy provides a first stage analysis of the network currently available in Louth. The retention of this network is particularly important in the protection of our European and nationally important biodiversity sites.

The policies provided for in this Strategy may assist in the protection of current features of interest and the provision of additional connectivity, where this is deemed necessary. Additional detailed guidance will further be provided during the drafting of Local Area Plans and other masterplans. The final aim shall always be to improve the resilience of County Louth within a changing environment.