Fermanagh and Omagh Transport Plan

Integrated Sustainability Appraisal: Scoping Report

November 2023

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Quality information

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1. Introduction

Purpose of this report

1.1 AECOM has been commissioned to undertake am Integrated Sustainability Appraisal (ISA) in support of the emerging Fermanagh and Omagh Transport Plan (hereafter referred to as "the FOTP") on behalf of the Department for Infrastructure (DfI).

1.2 This Scoping Report presents the scoping information for the ISA process.

The Fermanagh and Omagh Transport Plan

1.3 The DfI is working co-operatively with councils across Northern Ireland to produce a new family of Local Transport Plans to integrate with their Local Development Plans (LDPs). The integration of land-use and transport planning processes provides an opportunity to combine the shared regional and local ambitions which are set out in the Programme for Government and also in the councils' Community and Local Development Plans.

1.4 In this context, the FOTP is being developed alongside the Fermanagh and Omagh District Council LDP Local Policies Plan. This is to facilitate the successful integration of land use and transportation and to advance the regional strategic objectives for transportation and land use planning as outlined within the Strategic Planning Policy Statement.

1.5 The focus of the FOTP is on local transport policies and schemes, active travel facilities, local public transport services and accessibility to local trip attractors.

1.6 The draft objectives of the FOTP, and the LDP themes and key challenges that are associated with them, are outlined in **Table 1.1** below.

1.7 Notably, the 'Fermanagh Omagh 2030' Community Plan is the overarching plan for the Fermanagh and Omagh district, bringing together knowledge, expertise and collective resources of a wide range of partners, all working towards a single agreed vision.

Table 1.1 Draft objectives of the FOTP

Objective	LDP themes	Key challenges
1. Contribute to the reduction in carbon emissions from transport within the wider transport decarbonisation programme through initiatives that provide and promote sustainable travel options.	Environmental, Social	• Providing transport alternatives that are not only viable but also attractive to create modal shift in the context of a large dispersed rural population. • LDP policies in town centres limit ability to influence change though parking. • Changing people's attitude towards the use of private vehicles in their everyday lives.
2. Improve sustainable public transport accessibility to the main towns for people living in Fermanagh and Omagh district where it is	Social, Economic, Environmental	• Providing public transport that is not only viable but also attractive in comparison to private cars in the context of a large dispersed rural population.

Objective	LDP themes	Key challenges
sustainable and viable to do so.		• Changing people's attitude towards the use of private vehicles in their everyday lives.
3. Provide attractive and safe active travel networks (walking and cycling) linking residential, employment, retail and leisure uses in the urban areas of Enniskillen and Omagh.	Social, Economic	• Improving cycling and walking infrastructure in main towns, particularly where space for transport infrastructure is limited and there is a requirement to reallocate or restrict the use of road space.
4. Support high quality public realm in the centres of Enniskillen and Omagh, making the towns attractive places to live and work, by prioritising sustainable modes of transport and by reducing vehicle dominance.	Social, Economic	• Improving cycling and walking infrastructure in main towns. • LDP policies in town centres limit ability to influence change though parking. • Changing people's attitude towards the use of private vehicles in their everyday lives.
5. Ensure the transport network is resilient to climate change and is well maintained.	Environmental, Economic, Social	• The district is subject to wide spread flooding that impacts large sections of the transport network. • The District has the largest road miles per capita in the region.
6. Contribute to improvements in transport safety and a reduction in road casualties.	Economic, Social	• The District has the largest road miles per capita in the region. • Within the District, four times as many killed or seriously injured (KSI) casualties occur in rural areas compared to urban areas, consistent with the rural nature of the District. • The District had the highest number of fatal collisions on rural roads and the highest KSI casualty rate per population between 2012 and 2016 compared to each of the other Council areas.

What is the ISA process?

Strategic Environmental Assessment

1.8 Strategic Environmental Assessment (SEA) is a systematic process for evaluating the environmental consequences of proposed plans or programmes to ensure environmental issues are fully integrated and addressed at the earliest appropriate stage of decision making, with a view to promoting sustainable development. SEA was introduced under European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' (SEA Directive), which came into force in 2004.[1]

[1] The UK left the EU on 31st January 2020. Under the UK-EU withdrawal agreement, a transition period ended on 31st December 2020, during which time all EU law continued to apply to the UK. During the transition period the UK needed to continue following domestic law that implements EU law, or directly applicable EU law that is given effect through the EUWA

1.9 The requirements of the SEA Directive were transposed into Northern Irish domestic law through the Northern Ireland SEA Regulations, comprising the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (SR 280/2004).

1.10 The SEA Regulations require the DfI, as the programming authority, to assess the likely significant effects of its plans and programmes on:

"the environment, including short, medium and long-term effects, permanent and temporary effects, positive and negative effects, and secondary, cumulative and synergistic effects, on issues such as biodiversity; population; human health; fauna; flora; soil; water; air; climatic factors; material assets; cultural heritage, including architectural and archaeological heritage; landscape, and the inter-relationship between the issues…"[2].

1.11 Two key procedural requirements of the SEA Regulations are that:

1. When deciding on 'the scope and level of detail of the information' which must be included in the Environmental Report, there is a consultation with nationally designated authorities concerned with environmental issues; and
2. A report (the 'Environmental Report') is published for consultation alongside the draft plan for consultation that presents an assessment of the draft plan (i.e. discusses 'likely significant effects' that would result from plan implementation) and reasonable alternatives.

1.12 This Scoping Report presents the information associated with 1) above.

Integrated Sustainability Appraisal

1.13 A central part of the FOTP development process will be to ensure that the relevant SEA requirements are met, as set out in the Environmental Assessment of Plans and Programmes Regulations (Northern Ireland) 2004 (the SEA Regulations).

1.14 The aim of the SEA will be to inform plan-making both directly (i.e. through structured, systematic and evidence-based analysis), and indirectly (through providing stakeholders with information on potential plan impacts and so facilitating effective consultation).

1.15 The FOTP will also need to demonstrate that it has considered issues related to health, equalities and rurality.

1.16 A Health Impact Assessment (HIA) is a tool used to identify and assess the potential impacts of a plan and inform decision-making. Health is a central consideration for transport authorities, with air quality and noise issues associated with transport infrastructure significant contributors to health issues, and active transport modes supporting healthier lifestyles. By exploring the potential health outcomes associated with different approaches to transport delivery (both adverse and beneficial), an HIA integrated with an SEA enables an assessment of how the transport plan will influence key determinants of

2018. Beyond the transition period, the SEA Regulations, which previously implemented the requirements of the SEA Directive in Northern Ireland, will continue to apply as before unless and until new legislation is introduced.

[2] Schedule 2(6).

health and wellbeing. This includes through an environmental and socio-economic model of health.

1.17 DfI has a duty to ensure that the objectives and policy options within the FOTP promote equality of opportunity between groups outlined in Section 75 of the Northern Ireland Act 1998. The Act also requires the Department to give regard to the desirability of promoting good relations between persons of different religious belief, political opinion or racial group. An Equality Impact Assessment (EqIA) process is used by DfI to demonstrate how this duty has been met.

1.18 Rural proofing is a process which enables an understanding of the impacts of plan policies in rural areas. It ensures that these areas receive fair and equitable policy outcomes, and that the needs and interests of rural people, communities and businesses are properly considered.

1.19 Given the significant rural component of many parts of Fermanagh and Omagh, there will be a need to fully consider the impacts of different approaches for the plan on rural areas. This will draw on the approaches presented in The Rural Needs Impact Assessment Form and A Guide to the Rural Needs Act (NI) 2016 for Public Authorities.

1.20 In the context of the above, the SEA will be expanded into an Integrated Sustainability Appraisal (ISA) process. The ISA will seek to fulfil the requirement for SEA and addresses the duty to undertake equality screening and, if required, assessment. It will also incorporate an HIA and Rural Proofing. The approach is to fully integrate these to provide a single assessment process to inform the development of the FOTP, allowing evidence and insight to be shared across assessment processes. This will enable the ISA to be delivered through a robust and legally compliant process which actively seeks to inform and influence the preparation of the FOTP.

ISA scoping

1.21 This Scoping Report, which is the first stage of the ISA process, addresses procedural requirement 1) as set out under the ‘Strategic Environmental Assessment’ heading above.

1.22 Scoping is the process of determining the range and level of detail of the environmental issues to be taken forward in the ISA. The scope of the ISA depends on what is likely to be proposed through the plan or programme, its geographical and temporal coverage, and the nature of the receiving environment. The scoping process also identifies the methods to be used, the organisations and/ or individuals to be consulted during the assessment, and the timing and length of the consultation period.

1.23 The aim of this Scoping Report is to set out the scope for the ISA for consultees, and to provide a framework for the information to be presented in the forthcoming Environmental Report, which will form the main output of the ISA process.

1.24 This Scoping Report also explains how a rural proofing exercise will be integrated within the ISA process and describes how an EqIA and Habitats Regulations Assessment (HRA) will be undertaken alongside.

2. Approach to the ISA process

Key stages of the ISA process

2.1 This ISA follows the process required by the SEA Regulations. There is guidance published by government on undertaking SEA, specifically 'A Practical Guide to the Strategic Environmental Assessment Directive'; the 'Practical Guide'. This sets out a five-stage process for undertaking SEA. This process, in conjunction with the SEA Regulations, guides this assessment.

2.2 The stages and outputs for the ISA are set out in **Figure 2.1** below. Scoping (the current stage) comprises Stage 1 below.

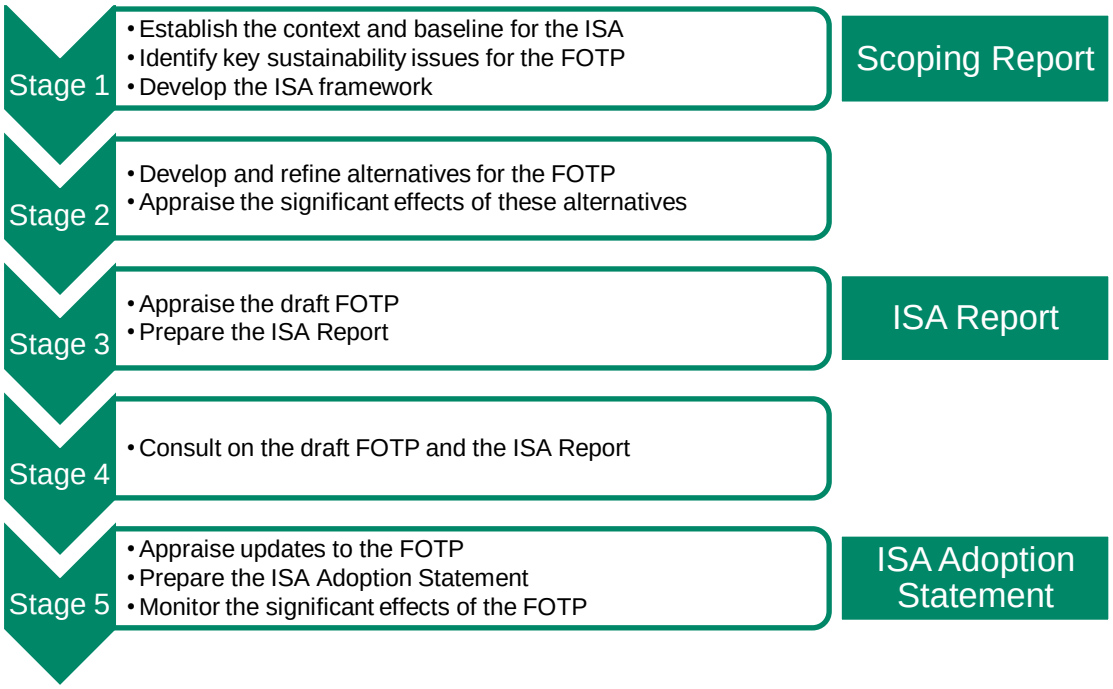

Figure 2.1 Key stages of the ISA for the FOTP, and ISA outputs

Rural proofing

2.3 The ISA process will incorporate a rural proofing exercise. The Rural Needs Act (Northern Ireland) 2016, which came in to force on 1st June 2017, applies to NI Government Departments and councils. It states that 'A public authority must have due regard to rural needs when developing, adopting, implementing or revising policies, strategies and plans.' Public authorities must report annually on how they have implemented this requirement.

2.4 Rural proofing recognises that rural areas of Northern Ireland have some significant barriers to economic growth and quality of life improvements which urban areas do not have. These barriers may, for example, include a lack of access to goods and services, more limited public transport services, or fuel poverty exacerbated by more costly fuels.

2.5 Effective rural proofing is part of good policy making practice. It allows plan makers to demonstrate that the needs of rural areas and impacts of proposed policies on rural areas have been fully considered. It also supports the identification of any potential impacts early on in the policy making process,

whilst helping to ensure that rural communities can receive maximum benefit from government policies.

2.6 Whilst there is no set approach for undertaking rural proofing, Government guidance states that rural proofing should seek to ensure *"fair and equitable treatment of rural communities and that a policy does not indirectly have a detrimental impact on rural dwellers and rural communities"*.[3]

2.7 In this context, a rural proofing exercise is integrated within the ISA process. Information relating to rural issues is presented in this Scoping Report under the 'rural proofing' ISA topic.

EqIA screening and HRA

2.8 To support the development of the FOTP, an EqIA screening and HRA will be undertaken.

2.9 Whilst EqIA and HRA will support the ISA process, they will be undertaken as separate processes. This is given EqIA and HRA are processes with distinct legal drivers and terminology from ISA with narrower focuses. The EqIA and HRA will however support the ISA and any key findings and mitigation/ recommendations will be clearly set out within the main Environmental Report.

EqIA screening

2.10 An EqIA (screening) is a policy development tool which assists policy makers/ decision makers to consider the needs and effects of a particular policy on people within the Section 75 equality groups.

2.11 To accompany the FOTP, EqIA screening will be undertaken to consider the needs and effects of Plan policies on people within the equality groups set out by Section 75 of the Northern Ireland Act 1998. The process will determine the impacts from the FOTP on equality of opportunity and if there are opportunities to better promote equality of opportunity between people within the Section 75 equality categories. In doing so, it will help ensure that the objectives and policy options within the FOTP eliminates unlawful discrimination (direct and indirect), as well as advancing equality of opportunity and fostering good relations between equality groups and all others.

2.12 Consultation undertaken on the FOTP later on in the plan making process will be accompanied by an EqIA Screening Report. This will be presented through the standard EqIA template (DfI Section 75 Equality of Opportunity Screening Analysis Form).

HRA

2.13 A HRA will be undertaken parallel to the ISA work. The primary aim of HRA is to ensure the protection of sites that host habitats and species of European importance. This process is set out in the Habitats Regulations.[4]

[3] Department of Agriculture and Rural Development (April 2015): 'Thinking Rural: The Essential Guide to Rural Proofing'

[4] The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 and the Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019

2.14 HRA is a staged approach to the assessment of European sites and the effects on them from proposed plans and projects, both alone and in combination with other plans and projects. The Stage 1 Screening is essentially a high-level risk assessment to determine *"is the project, either alone or in combination with other relevant projects and plans, likely to result in a significant effect upon any European site?"*. The Screening will examine the plan and identify likely significant effects and pathways to European sites. Mitigation cannot be considered at this stage. If the Stage 1 Screening concludes significant effects on European sites cannot be excluded on the basis of objective information, the plan will be assessed to determine if such impacts will impact the integrity of any European site at Stage 2.

2.15 Consultation on the FOTP will be accompanied by an HRA Report.

Structure of the Scoping Report

ISA topics

2.16 The information in this Scoping Report has been presented through the following ISA topics:

- Biodiversity.
- Water and soil resources.
- Historic environment.
- Landscape.
- Air quality and noise.
- Climate change.
- Healthy and safe communities.
- Rural proofing.

2.17 The selected ISA topics incorporate the 'ISA topics' suggested by Schedule 2 (6) of the SEA Regulations. These were refined to reflect a broad understanding of the anticipated scope of the FOTP's effects. They incorporate the aspects considered through the rural proofing and HIA elements of the ISA.

2.18 It is intended that presenting the scoping information under these topics will help enable the reader to easily locate the information of greatest interest to them. Once agreed (i.e. following consultation on this Scoping Report), the suggested scope presented under the eight topics will provide a methodological 'framework' for the ISA of the draft FOTP and reasonable alternatives.

Scoping report structure

2.19 This Scoping Report is presented through the following sections, reflecting the requirements of Stage 1 presented in **Figure 2.1** above:

- **Chapter 3: Links with other plans, programmes and strategies** – a summary of other relevant plans, programmes and strategies that are likely to influence the FOTP.

- **Chapters 4 – 11: Baseline and key sustainability issues** – an outline of the environmental, economic and societal characteristics of the plan area and key sustainability issues by ISA topic.
- **Chapter 12: ISA framework** – presents the proposed ISA framework, which, for each ISA topic, sets out the framework against which the draft FOTP and reasonable alternatives will be assessed.
- **Chapter 13: Next steps** – presents the next steps for the ISA process.

3. Links with other plans and programmes

Introduction

3.1 The ISA must consider the relationships between the FOTP and other relevant policies, plans, programmes and environmental objectives. In this context, the contents of the FOTP will be partially influenced by, and will also have some influence over, objectives presented within other plans/ programmes that are produced for Northern Ireland and locally.

3.2 This chapter therefore provides an overview of other relevant plans, programmes or strategies that are likely to influence the FOTP.

International[5]

- The Ambient Air Quality and Cleaner Air for Europe Directive (2008/50/EC).
- Birds Directive [2009/147/EC].
- Bonn Convention [L210, 19/07/1982 (1983)].
- Convention of Wetlands of International Importance especially as Waterfowl.
- Habitat (1971) [UN Treaty Series No. 14583].
- EIA Directive [85/337/EEC] [2014/52/EU].
- Environmental Liability Directive [2004/35/EC].
- Environmental Noise Directive [2002/49/EC].
- Environmental Quality Standards Directive [2008/105/EC].
- EU Action Plan: Towards Zero Pollution for Air, Water and Soil [COM(2021)400].
- EU Biodiversity Strategy for 2030 [COM(2020)380].
- EU Floods Directive [2007/60/EC].
- European Climate Pact [COM(2020)788].
- European Convention on the Protection of the Archaeological Heritage (Valletta 1992).
- Convention for the Protection of the Architectural Heritage of Europe (Granada 1985).
- European Landscape Convention [ETS No. 176].
- Groundwater Directive [80/68/EEC] and Daughter Directive [2006/118/EC].

[5] The UK left the EU on 31st January 2020. Under the UK-EU withdrawal agreement, a transition period ended on 31st December 2020, during which time all EU law continued to apply to the UK. During the transition period the UK needed to continue following domestic law that implements EU law, or directly applicable EU law that is given effect through the EUWA 2018. Beyond the transition period, the provisions of EU Directives will continue to apply before, unless and until new legislation is introduced.

- Habitats Directive [92/43/EEC].
- SEA Directive [2001/42/EC].
- Second European Climate Change Programme [ECCP II] 2005.
- Soils Thematic Strategy [COM(2006) 231].
- Waste Framework Directive [2008/98/EC].
- World Heritage Convention [WHC-2005/WS/02].

National, regional and local

- Fermanagh and Omagh District Council Local Development Plan 2030 Plan Strategy.
- DfI Environmental Mission Statement for Infrastructure Development and Management.
- Planning Act (Northern Ireland) 2011.
- Wildlife and Natural Environment Act (Northern Ireland) 2011.
- The Wildlife (NI) Order 1985 and amendments.
- The Wildlife Act 1976.
- The Wildlife (Amendment) Act 2000.
- The Water Environment (Water Framework Directive) Regulations (Northern Ireland) 2017 and amendments.
- The Water (NI) Order 1999.
- Abstraction and Impoundment (Licensing) Regulations (Northern Ireland) 2006.
- Environment Act 1995 Part IV Local Air Quality Management.
- Air Quality Standards Regulations (Northern Ireland) 2010.
- Air Quality (Ozone) Regulations (Northern Ireland) (2003).
- Climate Change Act 2008.[6]
- Climate Change Act (Northern Ireland) 2022.
- Energy Act 2008 and amendments 2011.
- Environmental Noise Regulations (Northern Ireland) 2006.
- Historic Monuments and Archaeological Objects (NI) Order 1995.
- The Environment (Northern Ireland) Order 2002.
- Environmentally Sensitive Areas Designation Order (Northern Ireland) 2005.
- Control of Pollution (Oil Storage) Regulations (NI) 2010.

[6] Two separate climate change bills were as of summer/autumn 2021 progressing through the Northern Ireland Assembly. Both Bills seek to set targets and carbon budgets with the aim of reducing greenhouse gas emissions.

- Shaping Our Future - Regional Development Strategy for Northern Ireland 2035.
- Climate Change Risk Assessment (CCRA) for Northern Ireland.
- Northern Ireland Climate Change Adaption Programme 2019.
- Ensuring a Sustainable Transport Future: A New Approach to Regional Transportation.
- Planning for the Future of Transport - Time for Change (2021).
- A Strategic Planning Policy Statement for Northern Ireland (2015).
- Local Development Plans of adjacent council areas.
- North West and Sub Regional Transport Plan Local Transport Studies 2021.
- NI Intelligent Transport Systems (ITS) Strategy 2025.
- Exercise Explore Enjoy: A Strategic Plan for Greenways (2016).
- Building A Bicycle Strategy for Northern Ireland (2015).
- Belfast Cycling Network (2021).
- Building an Active Travel Future for Northern Ireland (2013).
- Accessible Transport Strategy 2025.
- Draft Programme for Government.
- Rural Needs Act (Northern Ireland) 2016.
- Northern Ireland (Miscellaneous Provisions) Act 2006.
- Disability Discrimination Action 1995.
- Disability Discrimination (Northern Ireland) Order 2006.
- Children Young People's Strategy 2019-2029.
- Active Ageing Strategy 2016-22.
- River Basin Management Plans.
- Emerging issues from the draft Northern Ireland Energy Strategy 2050.
- Emerging issues from the draft Rural Policy Framework for Northern Ireland.

4. Biodiversity

Focus of the ISA topic

- Biodiversity designations.
- Key habitats and species.
- Ecological networks.

Baseline summary

Summary of current baseline

Designated sites

4.1 The Convention on Wetlands of International Importance (the Ramsar Convention) is the intergovernmental treaty that provides the framework for the conservation and wise use of wetlands and their resources. The convention was adopted in 1971 and came into force in 1975. In the UK, the initial emphasis was on selecting sites of importance to water birds, and consequently, many Ramsar Sites were also designated as Special Protection Areas (SPAs).

4.2 Within Northern Ireland, SPAs are designated under The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended). Special Areas of Conservation (SACs) in Northern Ireland are also designated under this legislation to provide increased protection to a variety of animals, plants, and habitats of importance to biodiversity.

4.3 To ensure The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) were operable after the end of the EU transition period, changes were made by The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019. In this respect, SPAs and SACs in the UK no longer form part of the EU Natura 2000 ecological network. Instead, the 2019 Regulations propose the creation of a national site network within the UK territory[7]. The network comprises the designated sites already designated under the Nature Directives (i.e. 79/409/EEC and 92/43/EEC), along with any additional sites which are designated under the 2019 Regulations. The national site network continues to operate in parallel with other designations – Areas of Special Scientific Interest (ASSIs), Marine Conservation Zones, and Ramsar Sites – and contributes towards Northern Ireland's international commitments for protected areas.

4.4 In the context of the above, a proportion of the national site network sites within Northern Ireland are in poor condition, and only 6% have management plans. Key facts relating to national site network sites include:

- Northern Ireland hosts 52 habitat types of Annex I and 19 species on Annex II under the European Habitats Directive, with the UK as a whole hosting 81 habitat types and 44 species.

[7] DAERA (2020): 'Guidance on The Conservation (Natural Habitats, etc.) (Amendment) (Northern Ireland) (EU Exit) Regulations 2019', [online] available to access via this link

- Northern Ireland has designated SPAs for 27 Annex I and other regularly occurring migratory species under the European Birds Directive.
- Northern Ireland has 25 species which are included as SPA assemblage features.

4.5 A summary of the internationally and nationally designated sites located within Fermanagh and Omagh is provided below and shown in **Figure 4.1** at the end of this chapter.[8]

Ramsar sites

4.6 There are eight Ramsar sites in Fermanagh and Omagh designated under the Convention on Wetlands of International Importance (the Ramsar Convention), which are:

- **Black Bog Ramsar** – situated in the northeastern part of the district, adjacent to its boundary with Mid Ulster. This site is one of the largest lowland raised bogs in Northern Ireland. The raised bog exhibits the full range of characteristic vegetation and structural features associated with this type of habitat and is surrounded by cut-over bog with poor fen. The site qualifies under criterion 1a of the Ramsar Convention by being a particularly good representative example of lowland raised bog. The site is especially important for its extensive hummock-hollow complex, high cover of Sphagnum species and largely intact lagg. There are some very large Sphagnum hummocks including *Sphagnum imbricatum* and *Sphagnum fuscum*. Another feature of the bog surface is the occurrence of an unusual plant community with locally high cover of common crowberry and large hummocks of the lichen *Cladonia portentosa*.
- **Cuilcagh Mountain** – situated in Fermanagh, along the border with the Republic of Ireland, this site is an important upland area with a wide variety of interests, including habitats, species and geology. The area is the second largest expanse of intact blanket bog in Northern Ireland, with a wide range of characteristic structural features and vegetation communities. The bog itself has several pool systems, which represent one of the best examples of dystrophic lakes and ponds in Northern Ireland. On the summit ridge, there is an expanse of the scarce *Racomitrium* alpine heath. The diverse mosaic of habitats includes scattered wet and dry heath, the steep north-facing siliceous scarp slope with its scree and boulderfield, and occasional *Sesleria caerulea* dominated limestone grassland and pavement on the lower slopes.
- **Fairy Water Bogs** – situated along the northern boundary of the district, to the northwest of Omagh, straddling Fermanagh and Omagh and Derry City and Strabane. The site consists of three bogs; one is in Derry City and Strabane and the other two are in Fermanagh and Omagh. The site qualifies under criterion 1a of the Ramsar Convention by being a particularly good representative example of lowland raised bog. This hummock and hollow pool complex is considered to be one of the largest and most intact concentrations of active lowland raised bogs in Northern

[8] It is important to note that in some cases, sites might share overlapping boundaries if they have multiple designations (i.e. in many cases, Ramsar Sites are also designated as SPAs).

Ireland and represents one of the best examples of this habitat type in the UK. Many invertebrate species such as the Brown hawker dragonfly can be seen in this habitat.

- **Fardrum & Roosky Turloughs** – situated approximately 7km northwest of Enniskillen, this site includes small elements of open water, the wet grasslands of the inundation zone, scrub woodland, and agricultural grassland. Roosky turlough, the southernmost sub-site, is dominated by inundation grassland, with little residual water when the site dries out. Semi-natural scrub dominates the northern and western margins, whilst extensive blackthorn scrub occurs to the east – the latter prone to winter flooding. The site usually holds a small suckler herd through the summer. Fardrum and Green Lough are set in intensively managed partially reseeded grassland, used for pasture but still retaining some semi-natural scrub. Whilst the turloughs themselves are relatively small, adjoining land that hosts notable habitat, or has a bearing on the conservation quality of the wetlands, has been included.
- **Magheraveely Marl Loughs** – situated approximately 35km from Enniskillen, with three of the loughs intersected by the border with the Republic of Ireland. This site comprises six low-lying loughs in the catchment of the River Finn. They are individually designated as ASSIs and selected from a cluster of lakes situated here because of the combination of hard water and low nutrient status, which results in lakes that approach the classic marl lake condition. In addition, they are surrounded by wetlands whose interest is also promoted by high calcium concentration.
- **Pettigoe Plateau** – situated in Fermanagh, to the north of Lower Lough Erne, this site is one of the largest expanses of blanket bog in Northern Ireland. Within Northern Ireland, Pettigoe Plateau occurs in a gently rolling landscape bearing much evidence of glaciation, with ridges, knolls and circular drumlins interspersed with flat plains and hollows. A thin layer of boulder clay underlies the blanketing peat over most of the area. Topography is variable, although most slopes tend to be moderate or gentle and altitude does not vary a great deal. The area of blanket bog has a wide range of the structural features associated with this habitat, including a large number of well-developed pool complexes, frequent acid flushes, basin mires, ladder fens and bog plains. The bog vegetation is characterised by luxuriant Sphagnum mosses, dwarf-shrubs with associated species demonstrating a strong oceanic influence. Amongst the lakes included in the designation, several are clean, soft water types, supporting a well-developed isoetid component in their aquatic vegetation.
- **Slieve Beagh** – situated partly in County Fermanagh and partly in County Tyrone, along the border with the Republic of Ireland, this site is one of the largest expanses of intact upland peatland in Northern Ireland. Peat depth is variable and consequently the peatland structure is highly diverse, with hummock, lawn and pool complexes on the deepest peats, grading into large expenses of blanketing peats on low gradients, to heathland communities on the steepest and more exposed slopes. Typically, the peatland vegetation supports good Sphagnum-rich blanket bog vegetation with high dwarf-shrub cover. Several lakes on site have characteristically un-enriched waters.

- **Upper Lough Erne** – situated in County Fermanagh, this site is a very large and complex freshwater system. A series of flooded drumlins in the course of the River Erne give rise to a complex of islands, bays and many lakes bordered by damp pastures, fens, reed swamp, alder/ willow carr, and oak woodland. The open waters of the main lough and smaller satellite loughs contain a variety of aquatic communities typical of natural eutrophic lakes. In addition, the shallow sheltered shores support extensive swamp, fen and marsh communities. Behind the open grazed foreshore is species-rich grassland, which occasionally extends back into the old adjacent field systems. Alluvial woodland is found where the shoreline is ungrazed or only very lightly grazed, whilst occasionally the dryer soils of the drumlins behind support a natural Oak woodland. There are a very large number of rare and notable plants and insects flourishing here, the woods being particularly important for breeding passerines and home for some notable mammals.

SPAs

4.7 There are three SPAs in Fermanagh and Omagh designated under The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), which are:

- **Pettigoe Plateau** – as above (see Ramsar site section).
- **Slieve Beagh-Mullaghfad-Lisnaskea** – covering a larger area than the Slieve Beagh Ramsar site, this site comprises a single land unit extending between Slatbeg in the northeast and Coolnasillagh in the southwest. It incorporates the Slieve Beagh massif, Mullaghfad Forest, and Lisnaskea Forest. Slightly more than half of the eastern boundary is formed by the border with the Republic of Ireland. The principal interest at this site is the breeding population of hen harrier.
- **Upper Lough Erne** – as above (see Ramsar site section).

SACs

4.8 There are 12 SACs in Fermanagh and Omagh designated under The Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended), which are:

- **Black Bog** – as above (see Ramsar site section).
- **Cladagh (Swalinbar) River** – this river rises in Cuilcagh Mountain and flows through County Cavan before crossing the border into County Fermanagh, where it widens and then enters Upper Lough Erne. Within County Fermanagh, the river has two distinct forms. The upper half is typical of fast-flowing dynamic rivers with beds of stream water crowfoot (*Ranunculus penicillatus var. penicillatus*), whilst the lower half of the river is slow-flowing and very deeply dredged as it nears Upper Lough Erne. The river is of particular importance for its associated fauna, as it is one of the few rivers in Northern Ireland that still retains a significant and viable population of the freshwater pearl mussel (*Margaritifera margaritifera*).
- **Cuilcagh Mountain** – as above (see Ramsar site section).
- **Fairy Water Bogs** – as above (see Ramsar site section).

- **Fardrum and Roosky Turloughs** – as above (see Ramsar site section).
- **Largalinny** – a complex site with a variety of interests. Geological interest relates to the Upper Visean Glenade sandstone formations and Upper Visean limestone formations with rich silicified fossil fauna (the latter around Carrick Lough). Physiographical interest relates to the scarp and dip control of slope. Botanical interest relates to the complex mosaic of habitats present, including heathland, oligotrophic and mesotrophic waterbodies and, in particular, broad-leaved semi-natural woodland. Rare species include rare higher plants, and notable lichen and bryophyte communities. In addition, there are notable assemblages of Odonata and Lepidoptera.
- **Lough Melvin** – originates from the end of the last Ice Age, with a catchment lying mainly in the Republic of Ireland. The lough is fed by five major rivers and drains into the Drowes River, a 7km outlet into Donegal Bay. The water is in a relatively pristine state, as it has not been artificially enriched by pollutants. Most of the shoreline and shallow margins of the lough are exposed to wave action and have a rocky character. The lough itself is characterised by open water plant communities typical of mesotrophic (unenriched) conditions, a narrow fringe of emergent swamp and fen, and a number of wooded islands. In addition, some of the surrounding lands contain traditionally managed grasslands, including fen meadow, which are rich in plant species. The wide range of habitats is reflected in the diversity of plant and animal communities present. Lough Melvin is of particular importance for its fish population.
- **Magheraveely Marl Loughs** – as above (see Ramsar site section).
- **Monawikin** – primarily a calcareous grassland site with Blue Moorgrass *Sesleria caerulea* dominated grassland, the richest of its type in Northern Ireland. The underlying rock is for the most part Carboniferous Upper Limestone, with the northwest of the site underlain by sandstone. The site also supports a range of species associated with a mosaic of other habitats including cliffs, screes, base rich flushes, heathland, scrub and woodland. There are transitions from open water to fen, swamp and Alder carr present around Carrick and Monawilkin Loughs within the site. The south-facing limestone scarp is the best inland site for Lepidoptera in Northern Ireland. There are recent records for a total of 23 butterfly species, and the site is the only known location in Northern Ireland for the Small Blue *Cupido minumus*. The site has recently, post declaration, been shown to be of national importance for its assemblage of grassland fungi. The Freshwater Crayfish *Austropotamobius pallipes* occurs in Monawilkin Lough.
- **Moninea Bog** – represents a comparatively large area of raised bog in County Fermanagh. It lies to the west of Upper Lough Erne, directly southwest of Teemore, and represents one of the few remaining examples from the complex of small, raised bogs, which once occupied hollows between the drumlins of South Ulster. The bog is completely surrounded by a series of low drumlin hills, which in turn are surrounded by a series of rivers. The peat deposits are deep and permanently waterlogged and the main feature of interest is a large intact dome supporting a good surface microtopography. A number of notable plant species have been recorded here, including *Sphagnum fuscum, S. imbricatum* and *S. pulchrum*.

- **Owenkillew River** – situated in the northeastern part of the district, to the east of Newtownstewart. The river originates in Mid Ulster and flows through Fermanagh and Omagh before entering Derry City and Strabane. To the east of Newtownstewart, it joins the River Foyle and Tributaries SAC. The site includes the river and its associated riverine flora and fauna, as well as adjacent semi-natural vegetation, primarily woodland flora and fauna. It is a fast-flowing spate river, notable for the physical diversity and naturalness of its bank and channel, and the richness and naturalness of its plant and animal communities, which includes extensive beds of Stream Water Crowfoot (*Ranunculus penicillatus var. penicillatus*) and the largest Northern Ireland population of Fresh Water Pearl Mussel (*Margaritifera margaritifera*). The river is also important for Otter and Atlantic Salmon.
- **Pettigoe Plateau** – as above (see Ramsar site section).
- **Slieve Beagh** – as above (see Ramsar site section).
- **Upper Lough Erne** – as above (see Ramsar site section).
- **West Fermanagh Scarplands** – runs from Sraniff and Kilgarrow in the north to Aghahoorin and Carn in the south, whilst extending back through a series of escarpments and ridges from the low foothills and limestone cliffs in the east to the extensive peatland plateau between Big Dog and Ballintempo Forests in the west. The site has a unique combination of geology, physiography, habitats, flora and fauna features. It contains base-rich broad-leaved woodland, wet and dry acid heath and calcareous heath, blanket bog, fen-meadow, calcareous and mesotrophic grassland, petrifying springs, flushes both acid and alkaline, natural dystrophic, mesotrophic and eutrophic open water bodies with accompanying aquatic macrophyte communities, swamp, and poor acid fen. Such diversity results in the presence of a large number of rare and notable higher plants, lichens, fungi and invertebrates.

ASSIs

4.9 Fermanagh and Omagh contains a total of 76 Areas of Special Scientific Interest (ASSIs). These are largely concentrated in the southwestern part of the district, many of which border its boundary with the Republic of Ireland. Particularly large ASSIs in this part of the district include the West Fermanagh Scarplands, Cuilcagh Mountain and Marlbank, and Upper Lough Erne (which is split into four parts: Belleisle, Trannish, Crom and Galloon). Whilst primarily smaller in size, several ASSIs are also located in the northeastern part of the district, including a particularly large one – Mullaghcarn ASSI – which is located to the northeast of Omagh and displays important examples of glacial landforms.

National Nature Reserves

4.10 National Nature Reserves (NNRs) have been established to protect the UK's most important habitats, species, and geology, and to provide 'outdoor laboratories' for research. Most NNRs offer great opportunities to schools, specialist interest groups and the public to experience wildlife at first hand and to learn more about nature conservation. In the context of the above, there are ten NNRs located in Fermanagh and Omagh, which are:

- Castle Archdale Forest.

- Castlecaldwell Forest.
- Correl Glen Forest.
- Crossmurrin.
- Hanging Rock & Rossaa Forest.
- Killykeeghan.
- Lough Naman Bog.
- Marble Arch.
- Reiley & Gole Woods.
- Ross Lough.

4.11 In terms of the location of designated sites in relation to Fermanagh and Omagh's road network, **Figure 4.1** at the end of this chapter indicates the following:

- Ramsar sites, SPAs and SACs located adjacent to, or intersecting with, the main road network include a small part of Upper Lough Erne (covers the same area as Killymackan Lough ASSI) (adjacent to the A509) and Cladagh (Swanlinbar) River (intersects with the A509).
- ASSIs located adjacent to, or intersecting with, the main road network include The Cliffs of Magho (adjacent to the A46), Cladagh (Swanlinbar) River (intersects with the A509), Tempo River (intersects with the A4), Killymackan Lough (adjacent to the A509), Dromore (adjacent to the A32), and Murrins (adjacent to the A505).

Key habitats and species

4.12 The Northern Ireland Biodiversity Action Plan, in addition to implementing UK-wide biodiversity priorities in Northern Ireland, identifies habitats and species that are of particular importance in the Northern Ireland context. Such habitats include fens, grassland, heathland, peatland, and woodland. Species identified as being particularly important in Northern Ireland include the Irish Hare (Lepus timidus hibernicus), Chough (Pyrrhocorax pyrrhocorax), Curlew (Numenius arquata) and Red Squirrel (Sciurus vulgaris).

4.13 The UK Land Cover Map 2015 (published in 2017 by CEH) reveals the proportion of land cover for habitat classes across Northern Ireland as follows:

- 3.3% broadleaved (6.1% UK average).
- 5.2% coniferous woodland (6.4% UK average).
- 6.8% arable (23.1% UK average).
- 57.3% improved grassland (30.4% UK average).
- 1.9% heather (4.0% UK average).
- 4.4% heather grassland (6.3% UK average).
- 6.5% bog (3.9% UK average).
- 0.6% urban (1.6% UK average).

- 3.5% suburban (5.6% UK average).

4.14 Updated and published in 2020 by CEH, the UK Land Cover Map 2019 shows the location of 21 broad land cover classes based on UK Biodiversity Action Plan (BAP) broad habitats. Available to view on CEH's web mapping service[9], high-resolution data for the whole of the UK can be observed. During the next stages of the ISA process and where appropriate, the mapping service shall be reviewed in greater detail to determine the land cover classes which are likely to be impacted by the proposals within the FOTP.

4.15 In terms of the location of priority habitats in relation to Fermanagh and Omagh's road network, **Figure 4.2** at the end of this chapter indicates the following:

- Peatland is the most prevalent priority habitat observed across Fermanagh and Omagh. Whilst it covers the district relatively evenly, a particularly large area intersects with the A505 to the northeast of Omagh.
- Grassland is concentrated in the southwestern extent of the district, particularly in the area contained by the A46, B81, A4 and B52, as well as the area to the south of the B52 near the border of the district.
- There are scattered areas of woodland within the district, primarily in the southwestern extent. Notable clusters can be seen near Enniskillen, Irvinestown, to the east of the B81, and to the south of the B52.

4.16 Ecological features of interest which might have the potential to be impacted by transport infrastructure include road verges, trees, and hedgerows. As these features play an important role in providing connectivity corridors and refuges for migrating and foraging species within Fermanagh and Omagh, it will be important for the FOTP to consider the potential implications on such features within the plan making process.

Summary of future baseline

4.17 Habitats and species will potentially face increasing pressures from future development in Fermanagh and Omagh, with the potential for negative impacts on the wider ecological network. This may include loss of habitats and impacts on biodiversity networks. The potential impacts on biodiversity from climate change are likely to include changes in habitat, changes in species distribution, changes in hydrology, and changes in ecosystem functioning.

4.18 Internationally and nationally designated sites are particularly sensitive to air quality issues. In this respect, exceeding critical values for air pollutants may result in changes to the chemical status of habitat substrate, accelerating or damaging plant growth, altering vegetation structure and composition and thereby affecting the quality and availability of nesting, feeding or roosting habitats. Additionally, the nature, scale, timing, and duration of some human activities can result in the disturbance of species at a level that may substantially affect their behaviour, and consequently affect the long-term viability of their populations.

[9] Centre for Ecology and Hydrology (2020): 'UKCEH Land Cover Maps: Web Mapping Service', [online] available to access via this link

4.19 To maintain and improve the condition of biodiversity in the future, it will be important to not only protect and enhance important habitats but the connections between them, in addition to delivering net gains through new development areas. It will be crucial to effectively coordinate the delivery of new infrastructure to ensure that opportunities to improve green infrastructure and ecological corridors are maximised within Fermanagh and Omagh.

4.20 Under the Environment Act 2021, from November 2023 all planning projects, including transport and infrastructure projects, will be required to deliver at least 10% biodiversity net gain (BNG). BNG will be measured using biodiversity metrics and habitats will need to be secured for at least 30 years. Transport and infrastructure projects offer a unique opportunity to create new/expand upon existing green and blue infrastructure networks, which can utilise roadside verges or be formed alongside active travel routes.

Key sustainability issues

4.21 The following key issues have been identified through the baseline review for this topic:

- The nature, scale, timing, and duration of some transport activities can result in the disturbance of species at a level that may substantially affect their behaviour, and consequently affect the long-term viability of their populations. This can include effects of poor air quality on designated sites, severance of ecological networks from transport corridors, and road kills.
- Road verges are subject to a range of stresses imposed by passing traffic, including salt spray, oil, lead, and air pollutants. Parking and over running on verges can result in the complete loss of vegetation.
- There are six Ramsar sites, three SPAs and 12 SACs located within Fermanagh and Omagh, which all contribute to the national site network across Northern Ireland. Two of these sites are located adjacent to, or intersect with, the main road network.
- Other protected areas within the district include 76 ASSIs and ten NNRs. Six ASSIs are located adjacent to, or intersect with, the main road network.
- A significant proportion of Northern Ireland's habitats and species are in an unfavourable condition. Few designated sites have management plans, suggesting a potential absence of a coordinated conservation approach for ecological networks.
- There are a variety of key habitats located within proximity to Fermanagh and Omagh's road network, including areas of peatland, grassland and woodland.
- Fragmentation of wildlife habitats into smaller, isolated areas caused by new and existing development, as well as increasing traffic, reduces the scope for wildlife to move and adapt to new conditions. Habitat creation in existing and new transport corridors, as well as the delivery of BNG, can help mitigate the impact of transport on biodiversity.
- The FOTP presents an opportunity to maximise benefits for biodiversity by including consideration of important habitats, species, undesignated sites,

and connections between designated sites and undesignated sites at a localised scale, and at an early stage of planning for future enhancements to transport infrastructure.

4.22 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

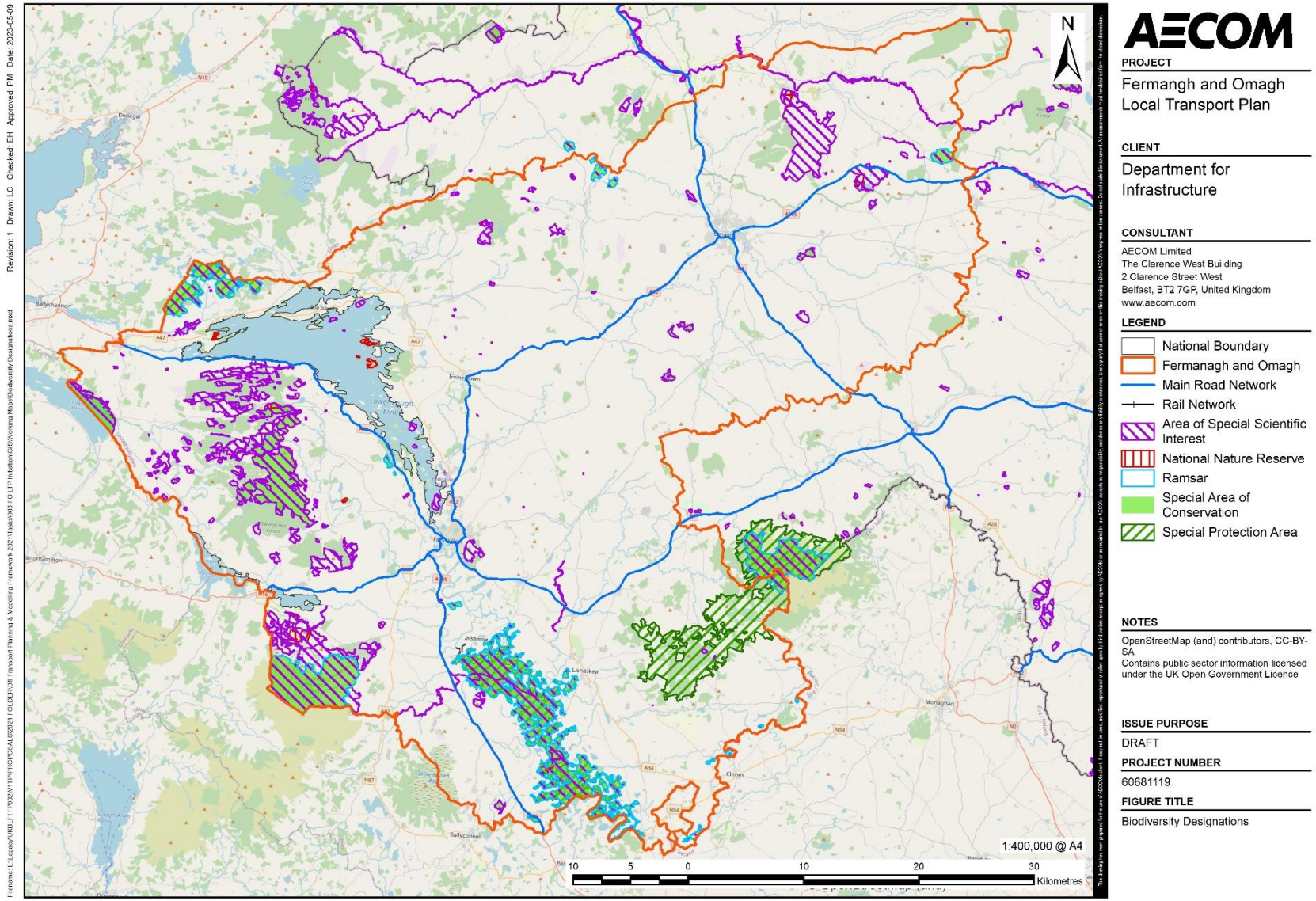

Figure 4.1 Designated sites for biodiversity in and around Fermanagh and Omagh

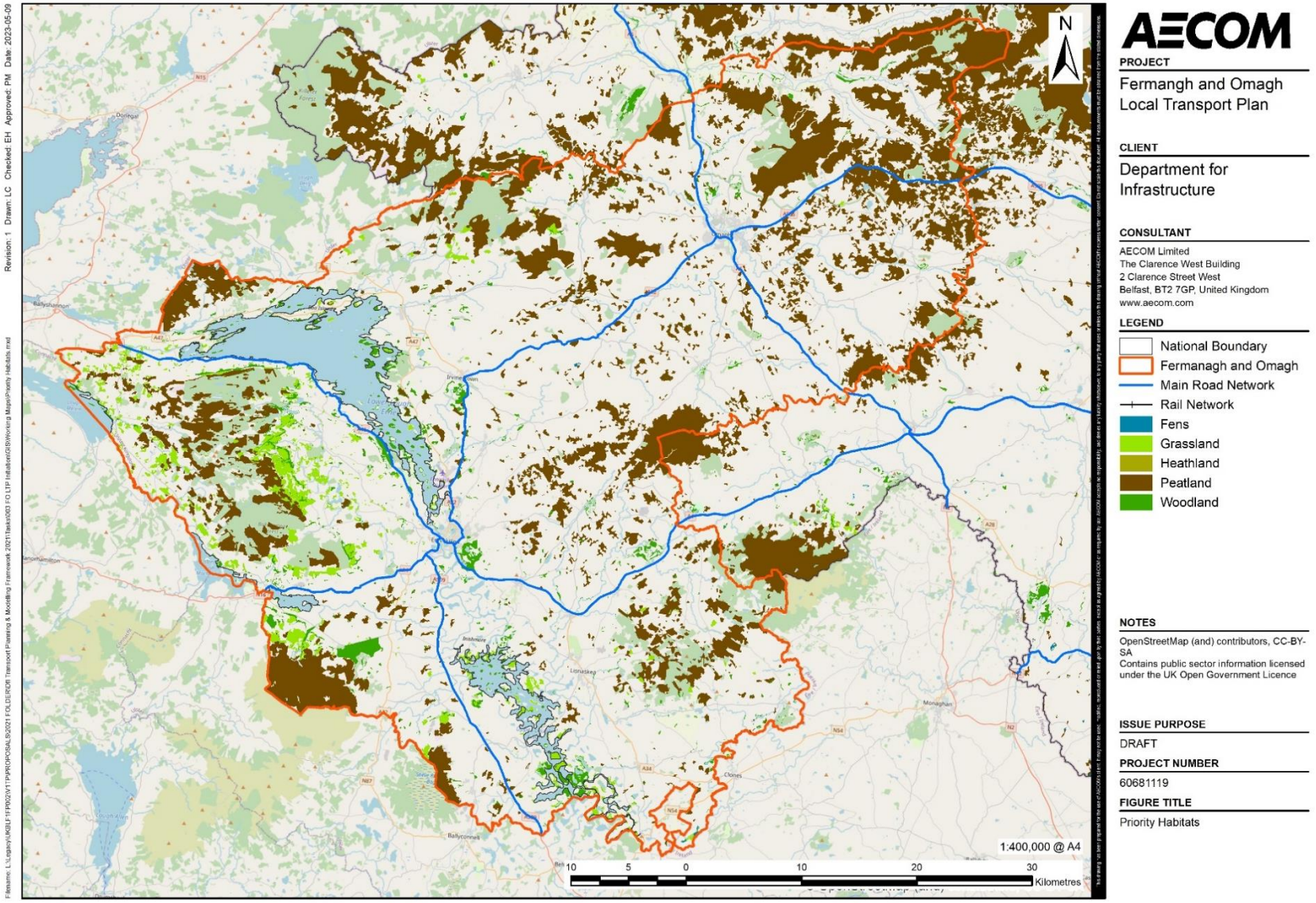

Figure 4.2 Priority habitats in and around Fermanagh and Omagh

5. Water and soil resources

Focus of ISA topic

- Water resources and quality.
- Soil resources.
- Mineral resources.
- Waste.

Baseline summary

Summary of current baseline

Water resources and quality

5.1 The water resources located within Fermanagh and Omagh include a network of main rivers, lakes, small streams, brooks, and drainage ditches.

5.2 There are numerous waterbodies in Fermanagh and Omagh, including a large number of rivers and eight lakes, which are: Castlehume Lough, Lough Scolban, Lower Lough Erne Devenish, Lower Lough Erne Kesh, Lough Macnean Lower, Lough Macnean Upper, Lough Melvin, and Upper Lough Erne. The remaining waterbodies are groundwater resources.

5.3 River monitoring is carried out routinely by the Northern Ireland Environment Agency (NIEA) against Water Framework Directive (WFD) standards. This monitoring includes chemical and biological indicators of ecological water quality, with the overall waterbody classification ranging from ‘high’ to ‘bad’. In 2018, 31.3% of Northern Ireland’s river waterbodies were classified as 'good’ or better. This compares with 32.7% classified as ‘good’ or better in 2015.

5.4 The key issues preventing waterbodies from reaching ‘good’ status can be attributed to physical modifications; pollution from towns, cities, and transport; and changes to the natural flow and levels of water. **Figure 5.1**, at the end of this chapter, shows the water quality of the surface waterbodies within Fermanagh and Omagh. The majority of surface waterbodies in the district are classified as ‘good’ or ‘moderate’. However, there are several waterbodies with a ‘high’ or ‘poor’ status, as well as one with a ‘bad’ status.

5.5 The WFD is implemented through River Basin Plans, creating a six-yearly cycle of planning, action, and review. The first planning cycle covered the period from December 2009 to December 2015, with the second continuing from December 2015 to December 2021. The WFD requires NIEA to protect the status of the waterbodies from deterioration, and where necessary and practicable, to restore waterbodies to ‘good’ status.

5.6 An updated assessment of lake water quality was undertaken in 2020.[10] The assessment found that of the 21 lakes in Northern Ireland, only one was classified as ‘good’, whilst the remaining 20 were classified as ‘moderate’,

[10] DAERA (2020): ‘Northern Ireland Water Framework Directive Statistics – Lake Quality Update 2020’, [online] available to access via this link

'poor' or 'bad'. Comparatively, in 2015 and 2018, five lakes were classified as 'good'.

Soil resources

5.7 Land is a limited resource with competition for use for agriculture, forestry, and other uses. The value and use of land will generally depend on its quality, location and any restrictions placed on it.

5.8 The Agricultural Land Classification (ALC) system broadly aligns to the classifications given to land within Northern Ireland, subdividing Grades 3 into 3a and 3b, with Grades 1, 2, and 3a being classified as best and most versatile (BMV) land.

5.9 Northern Ireland has significant natural resources such as carbon rich soils (including substantial peatland) and high-quality grassland cover. The Agri-Food and Biosciences Institute (AFBI) revealed that Northern Ireland as a whole comprises 7.1% Grade 2 land, 23.9% Grade 3a land, 26.1% Grade 3b land, 30.6% Grade 4 land, and 7.8% Grade 5 land (which includes urban land). The remaining 4.5% comprises water. As 31% of land in Northern Ireland is classified as Grade 2 or 3a, there is a need to avoid the loss of BMV land.

5.10 Public Authorities (Northern Ireland government departments, councils, non-departmental public bodies, and arms-length bodies), the Crown Estate and charities own considerable areas of land in Northern Ireland. Most land, however, is owned by private landowners, primarily farmers. Land management is strongly influenced by government and EU policies under the Northern Ireland Protocol and financial measures. Soil is important in Northern Ireland for the role it plays in supporting agriculture and forming important natural habitats, and the degradation of soil resources threatens these uses.

5.11 Agri-environment schemes encourage farmers and landowners to manage their land to benefit the environment (specifically to enhance biodiversity, improve water quality, enhance the landscape and heritage features, and help reduce the impact of climate change) by integrating sustainable environmental management into the everyday workings of the farm. In return for this, farmers and landowners receive a payment, based on the area of habitat and archaeological features present on the farm, and the area/ length of habitat enhancement options carried out.

Mineral resources

5.12 Mineral resources are defined as natural concentrations of minerals or, in the case of aggregates, bodies of rock that are, or may become, of potential economic interest due to their inherent properties. They make an essential contribution to Fermanagh and Omagh's prosperity and quality of life. Since minerals are a non-renewable resource, minerals safeguarding is the process of ensuring that non-minerals development does not needlessly prevent the future extraction of mineral resources, of local and national importance.[11]

5.13 The geology of the Fermanagh and Omagh area is rich in minerals.[12] Mineral resources within the area range from peat, basalt, igneous rock, limestone and sand and gravel. Sand and gravel is very common in the north-east of the

[11] GOV.UK (2014): 'Minerals Guidance', [online] available to access via this link
[12] FODC (2018): 'Local Development Plan – Minerals', [online] available to access via this link

district, found along the fringes of the Sperrins and within the river valleys emanating from them. Limestone is mainly found in Fermanagh, occurring in a range of geological areas and environments. Notably, County Fermanagh is the largest producer of limestone in Northern Ireland, accounting for 68% of total output. The main local recipient of these resources is the building and construction trades, though demand has reduced over the last few years due to the recession and downturn in housing markets.

5.14 Oil, gas, coal, lignite and peat may be grouped together as 'energy minerals' as their main use has been to produce energy. The Carboniferous rocks in County Fermanagh are known to contain gas, but the sandstone reservoirs have very low permeabilities, and therefore the gas does not flow readily to surface. These tight gas sandstones, together with gas-bearing shales, are known as unconventional reservoirs and require the use of high-volume hydraulic fracturing (commonly known as 'fracking') to extract the gas.

5.15 In terms of the contribution of mineral extraction to the local economy, in 2016, mineral extraction in Fermanagh and Omagh contributed just over £6m to the economy, with over half of this total attributed to limestone extraction.

5.16 Numerous abandoned quarries are also visible throughout the district, where workings have long been abandoned.

5.17 Impacts on material assets associated with FOTP proposals are site-specific and would likely be limited to the immediate area.

Waste

5.18 The production and disposal of waste is becoming an increasingly important issue. Waste is produced by households, by industrial processes, by the construction and demolition industry, through commercial activities and agricultural practices and by public services and utilities. Waste can affect the environment through its visual impact, emissions to the air, leachate to groundwater, runoff to surface water as well as the contamination of land.

Summary of future baseline

5.19 Population growth, development, and climate change is likely to increase pressure on WFD associated objectives and water resources. Climate change could also increase flooding, which could lead to adverse effects on water quality from overflowing of storm water drains and leaching of contaminated soils into surface waters.

5.20 Soil erosion is likely to continue due to surface water flash flooding and other causes. Compaction and sealing is also likely to continue, for example through an increase in developed areas and impermeable surfaces. Continued pressure for development and new infrastructure within the undeveloped areas of Fermanagh and Omagh has the potential to displace areas of BMV land. However, it is noted that the new sustainable drainage systems (SuDS) policy within the newly adopted Plan Strategy for FODC is likely to mitigate this to some degree.

5.21 The consumption of natural resources to maintain Fermanagh and Omagh's transport network has a negative environmental effect. However, if maintenance is not undertaken, the integrity and quality of the transport

network would deteriorate to the detriment of accessibility and economic growth. Additionally, there would be impacts on the environment, for example increased greenhouse gas (GHG) emissions from longer travel times.

5.22 Improvements to the economic climate and government initiatives promote transport infrastructure projects, and inherently use material assets and produce waste. It is anticipated that this trend will continue over the coming years.

Key sustainability issues

5.23 The following key issues have been identified through the baseline review for this topic:

- The water resources located within Fermanagh and Omagh include a network of main rivers, lakes, small streams, brooks, and drainage ditches.
- The key issues preventing waterbodies from reaching good status can be attributed to physical modifications; pollution from towns, cities, and transport; and changes to the natural flow and levels of water.
- The construction, maintenance and operation of transport infrastructure should seek to reduce the quantity of primary materials required, make use of surplus materials, and minimise the disposal of waste via landfill.
- Increased soil erosion and compaction could be an issue for new infrastructure schemes, with impermeable materials reducing the drainage capacity and increasing the potential for surface water run-off issues.
- Transport infrastructure projects (akin to most development projects) inherently use material assets and produce waste. If not appropriately mitigated, waste can affect the environment through its visual impact or by emissions to the air, leachate to groundwater, and runoff to surface water as well as the contamination of land.

5.24 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

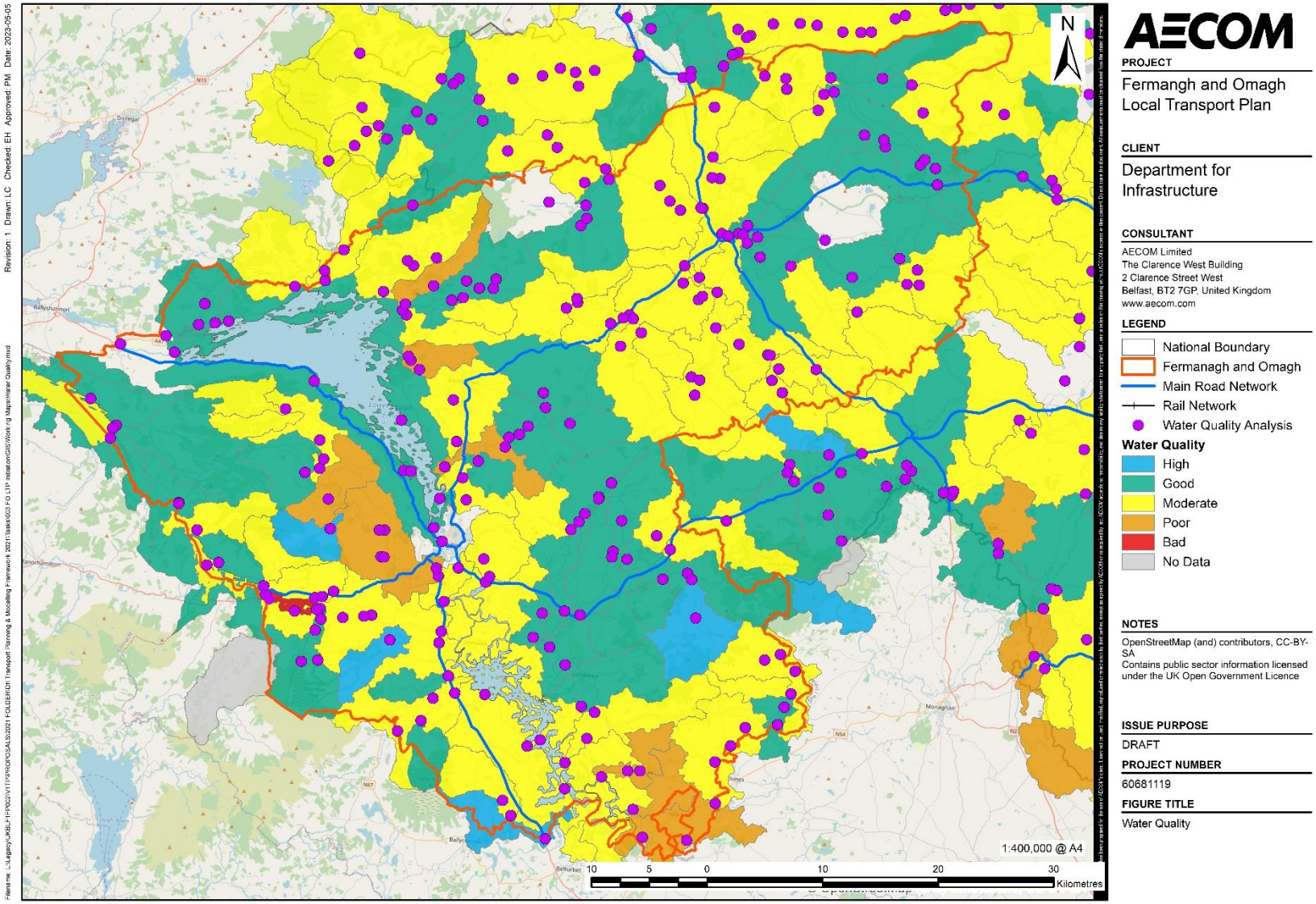

Figure 5.1 Water quality of surface waterbodies in and around Fermanagh and Omagh

6. Historic environment

Focus of ISA topic

- Designated and non-designated heritage assets.
- Setting, special qualities, and significance of heritage assets.
- Locally important heritage assets.
- Archaeological resources.

Baseline summary

Summary of current baseline

Introduction

6.1 The built heritage of Fermanagh and Omagh includes archaeological sites and monuments, historic buildings, industrial and military remains, gardens, and historic landscapes.

6.2 As well as designated sites, there are also a significant number of assets of historical and archaeological importance that do not meet the criteria for designation and are classed as 'record only'.

6.3 Northern Ireland's centralised heritage recording system has created a unified, standardised, and advanced baseline data set, for industrial heritage, post-medieval/ modern defence heritage, listed buildings, and non-listed buildings of historical interest.

Listed buildings

6.4 Listed buildings are those of special architectural or historic interest and provide an indication of the extent of this historical architectural resource. There are over 8,500 buildings listed in Northern Ireland. Listed buildings are graded A, B+, B, B1 or B2 depending on their level of special architectural or historic interest; approximately two-thirds of listed buildings are in the lower two categories.

6.5 As shown in **Figure 6.1** at the end of this chapter, listed buildings are spread across Fermanagh and Omagh, with particularly dense clusters found in the main settlements of Enniskillen and Omagh. Other settlements also contain clusters of listed buildings, many of which are located along the main road network.

Sites and Monuments

6.6 The Northern Ireland Sites and Monuments Record (NISMR) holds information on over 16,000 archaeological sites and historic monuments.[13] These provide evidence of settlement, agricultural, industrial, and ritual activity from 9,000 years ago to the recent past.

[13] Department for Communities (no date): 'Sites and Monuments Record', [online] available to access via this link

6.7 There are a total of 3,272 records on the NISMR found in Fermanagh and Omagh. As shown in **Figure 6.1** at the end of this chapter, these are spread across the entire district. However, there appears to be far more sites and monuments in the southwestern part of Fermanagh and Omagh, particularly around Lower Lough Erne and Enniskillen. This is due to the rich military history resource of County Fermanagh, particularly in this area.

Scheduled monuments

6.8 There are over 2,000 scheduled monuments within Northern Ireland, 418 of which are located in Fermanagh and Omagh. These include settlements, defences, prehistoric sites, forts, churches, castles, maritime sites, routeways and sites for ritual and burial. Monuments may be scheduled for protection under Article 3 of The Historic Monuments and Archaeological Objects (Northern Ireland) Order 1995. It is an offence to carry out changes to such structures without consent.[14]

6.9 As shown in **Figure 6.2** at the end of this chapter, several relatively large scheduled monuments can be found near Enniskillen. These are:

- Crannogs (4) in Drumgay Lough, located to the north of Enniskillen.
- Crannogs (6) in Lough Eyes, located to the east of Enniskillen.
- Monastic site (area surrounding the state care monument) on Devenish Island, located to the north of Enniskillen.
- Prehistoric ritual landscape, located to the east of Enniskillen.
- 17th century house (site of) bawn (site of) and formal garden, located to the southeast of Enniskillen, adjacent to Lough Coole.

6.10 There are further, smaller scheduled monuments scattered throughout the entire district. Whilst smaller in size, these still hold significant value.

Historic Parks and Gardens

6.11 The Northern Ireland Heritage Gardens Archive contains a comprehensive record of over 700 historic parks, gardens, and demesnes (manorial estates). Many are distinguished by their carefully composed designs of trees, shrubs, meadows, or waters, or perhaps as a setting for a building. Others may provide a significant historic record, either of a particular era or showing how the design has changed over the centuries[15].

6.12 As shown in **Figure 6.2** at the end of this chapter, historic parks and gardens are largely concentrated in the southwestern part of Fermanagh and Omagh. The largest of these are:

- Belle Isle, located in the northwestern extent of Upper Lough Erne.
- Castle Archdale, located to the east of Lower Lough Erne, adjacent to the A47.
- Castle Caldwell, located to the northwest of Lower Lough Erne, intersecting with the A47.

[14] Department for Communities (no date): 'Scheduled Monuments', [online] available to access via this link
[15] Department for Communities (no date): 'Historic Parks, Gardens, and Demesnes', [online] available to access via this link

- Castle Coole, located to the southeast of Enniskillen, intersecting with the A4.
- Colebrook Demesne, located to the northeast of Brookborough, adjacent to the A4.
- Crom Castle, located in the southeastern extent of Upper Lough Erne, adjacent to the district's boundary with the Republic of Ireland.
- Ely Lodge, located to the west of the southern extent of Lower Lough Erne, intersecting with the A46.
- Florence Court, located adjacent to the B52.
- Necarne Castle (Castle Irvine), located to the south of Irvinestown, adjacent to the A32.

6.13 Whilst less prevalent in the northeastern half of the district, there are still several historic parks and gardens present, including:

- Beltrim Castle, located to the west of Gortin, intersecting with the B46 and adjacent to the B48.
- Creevenagh, located in the southeast of Omagh.
- Edenfel, located in the southeast of Omagh.
- Lisnamallard (Millbank) House, located in the centre of Omagh, adjacent to Old Mountfield Road.
- Termon (Athenry), located to the southeast of Carrickmore, adjacent to the B4.

Conservation areas

6.14 In Fermanagh and Omagh, conservation areas can be found in Enniskillen, Dromore, Lisnaskea and Omagh. Conservation areas are places of special architectural or historic interest where it is desirable to preserve and enhance the character and appearance of such areas.

6.15 Conservation Area Guides provide information on the planning context, historical development, description or character appraisal of the area, the designation, and guidelines for development proposals. There are over 40 guides for conservation areas in Northern Ireland, accessible on the Department for Infrastructure webpage.[16]

Defence Heritage Records and Industrial Heritage

6.16 There are more than 16,000 features listed in the Industrial Heritage Record for Northern Ireland, including mills, mines, canals, and railways. There are many Industrial Heritage Records in Fermanagh and Omagh, which can be seen in **Figure 6.1** at the end of this chapter. In this respect the canal and railway network was a key factor in enabling the movement of goods around the district and further afield.

6.17 Defence heritage assets include airfields, ammunition, bomb and component stores, army camps, barracks, blister hangars, machine gun ranges, military

[16] Department for Infrastructure (no date): 'Conservation Area Guides (A-Z list)', [online] available to access via this link

structures, observation posts, pillboxes, refuelling jetties, and runways, linked to World War I and World War II. Such areas are recognised by the designation of Defence Heritage Records. The location of these in Fermanagh and Omagh are shown in **Figure 6.1**. Notably, there are several large clusters of Defence Heritage Records along the eastern side of Lower Lough Erne, which illustrates the strong military history of County Fermanagh.

Archaeological resources

6.18 Northern Ireland's archaeology ranges from sites and monuments (as discussed above) to maritime remains. The Historic Environment Division (within the Department for Communities) works in conjunction with external bodies to excavate, survey, catalogue, protect and conserve Northern Ireland's archaeology.[17] Designations within Northern Ireland include Areas of Archaeological Potential and Areas of Significant Archaeological Interest.

6.19 As shown in **Figure 6.2** at the end of this chapter, there are two large Areas of Significant Archaeological Interest near Enniskillen, which are:

- Devenish – a medieval monastic site on and around Devenish Island.
- Topped Mountain – a burial cairn in the foothills of the Sperrins, to the northeast of Enniskillen. It contains the greatest concentration of prehistoric monuments in County Fermanagh.

Heritage at risk

6.20 Though the majority of heritage assets in Northern Ireland are in relatively good condition, a small proportion (around 8% of listed buildings) are at risk. This includes a total of 190 single, groups or complexes of sites and monuments (representing some of the premier examples of monument types in Northern Ireland) which are subject to an ongoing conservation programme.

6.21 The Historic Environment Division works with owners, developers, heritage groups, building preservation trusts, local communities, and other stakeholders to find solutions for the issues faced by these assets and to help realise their latent potential. Such issues include (but are not limited to)[18]:

- Long-term vacancy of assets.
- Neglected and/ or poorly maintained.
- Damage by events such as fires.
- Unsecured and in danger of loss.
- Threatened with demolition.

6.22 The Heritage at Risk Register for Northern Ireland highlights properties of architectural or historic merit throughout the country that are at risk or under threat.[19] During the next stages of the ISA process, and where appropriate, the Register shall be reviewed in greater detail to determine whether any heritage

[17] Department for Communities (no date): 'Archaeology', [online] available to access via this link
[18] Department for Communities (2021): 'Heritage at Risk', [online] available to access via this link
[19] Department for Communities (2021): 'The Heritage at Risk Register for Northern Ireland', [online] available to access via this link

features which are currently at risk are likely to be impacted by the proposals within the FOTP.

Relationship with road and greenway networks

6.23 Northern Ireland's greenway network[20] comprises around 1,000km of former transport routes, which currently lie abandoned. In Fermanagh and Omagh, the greenway network comprises the former railway network, which links Omagh, Fintona, Enniskillen, Belleek and Maguiresbridge to each other and other settlements within Northern Ireland.

6.24 In terms of the location of heritage features and assets in relation to Fermanagh and Omagh's road and greenway networks, the following trends have been observed across **Figure 6.1** and **Figure 6.2**:

- Numerous listed buildings, sites and monuments, and Industrial Heritage Records can be found along the main road network.
- Several historic parks and gardens can also be found along the main road network, particular along the roads leading in to/ out of Enniskillen.
- Devenish – one of the large Areas of Significant Archaeological Interest near Enniskillen – is bounded by two main roads, the A46 and A32.

6.25 The canal network also forms and important component of the historic environment, particularly in County Fermanagh. The Ulster Canal, which was built between 1825 and 1842, runs through County Armagh, County Tyrone and County Fermanagh, and in the Republic of Ireland, County Monaghan. The locks were built narrower than the other Irish waterways, preventing through trade, and there was an inadequate water supply. Due to this, it was a failure commercially, and contributed to the collapse of the Lagan Navigation Company. It closed in 1931; however, Waterways Ireland started work on rebuilding the canal at its southern end in 2015. Another notable canal is the Shannon-Erne Waterway, which links the River Shannon in the Republic of Ireland with the River Erne in County Fermanagh. The Waterway opened in 1994.

Additional heritage features and areas of interest

6.26 It should be noted that not all historic environment features are subject to statutory designations, and non-designated features comprise a large part of what people have contact with as part of daily life – whether at home, work, or leisure. Although not designated, many buildings and areas are of historic interest and are important by local communities. For example, open spaces and key distinctive buildings are likely to have a local historic value.

Summary of future baseline

6.27 New infrastructure provision within Fermanagh and Omagh has the potential to impact on the fabric and setting of heritage assets, for example, through ground disturbance and inappropriate design and layout. It should be noted, however, that existing historic environment designations offer a degree of protection to

[20] Northern Ireland Greenways (no date): 'About Northern Ireland Greenways', [online] available to access via this link

heritage assets and their settings, and there are a range of existing initiatives to enhance the historic environment across Northern Ireland.

6.28 Increasing traffic levels associated with an increase in population has the potential to negatively impact heritage assets. In urban areas, this can be from vibration affecting the structural integrity of vulnerable buildings, emissions, and from the provision of street furniture affecting the setting of assets.

6.29 Increases in visitor numbers may increase demand for recreational activities associated with key heritage assets in the district, including the use of the canal and greenway network.

Key sustainability issues

6.30 The following key issues have been identified through the baseline review for this topic:

- A significant number of features and areas of historic environment interest are present in the vicinity of Fermanagh and Omagh's transport network, including the road and greenway networks.
- Many features of cultural interest are directly associated with the transport network of Fermanagh and Omagh, including railways, bridges and the canal network.
- New infrastructure provision has the potential to impact on the fabric and setting of heritage assets, through ground disturbance, inappropriate design and layout.
- The transport network should avoid loss of or damage to heritage features, and where possible, recognise and better reveal the significance of heritage assets into transport infrastructure, providing opportunities for enhancing their fabric and setting.
- New development need not however be harmful to the significance of a heritage asset, and in the context of the FOTP, there may be opportunity for new transport infrastructure to enhance the historic settings of localities and better reveal assets' heritage significance.
- It is also recognised that the FOTP has the potential to establish cross-cutting provisions relating to development. This has the potential to include the creation and enhancement of functional environmental infrastructure, ecosystem services and biodiversity, providing appropriate buffers to natural spaces and restoring and enhancing connectivity. In this context, improving the resilience of such networks is likely to protect the historic environment, important views, and/ or the setting of designated and non-designated assets, in addition to the wider character of key historic settlements in the district.

6.31 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

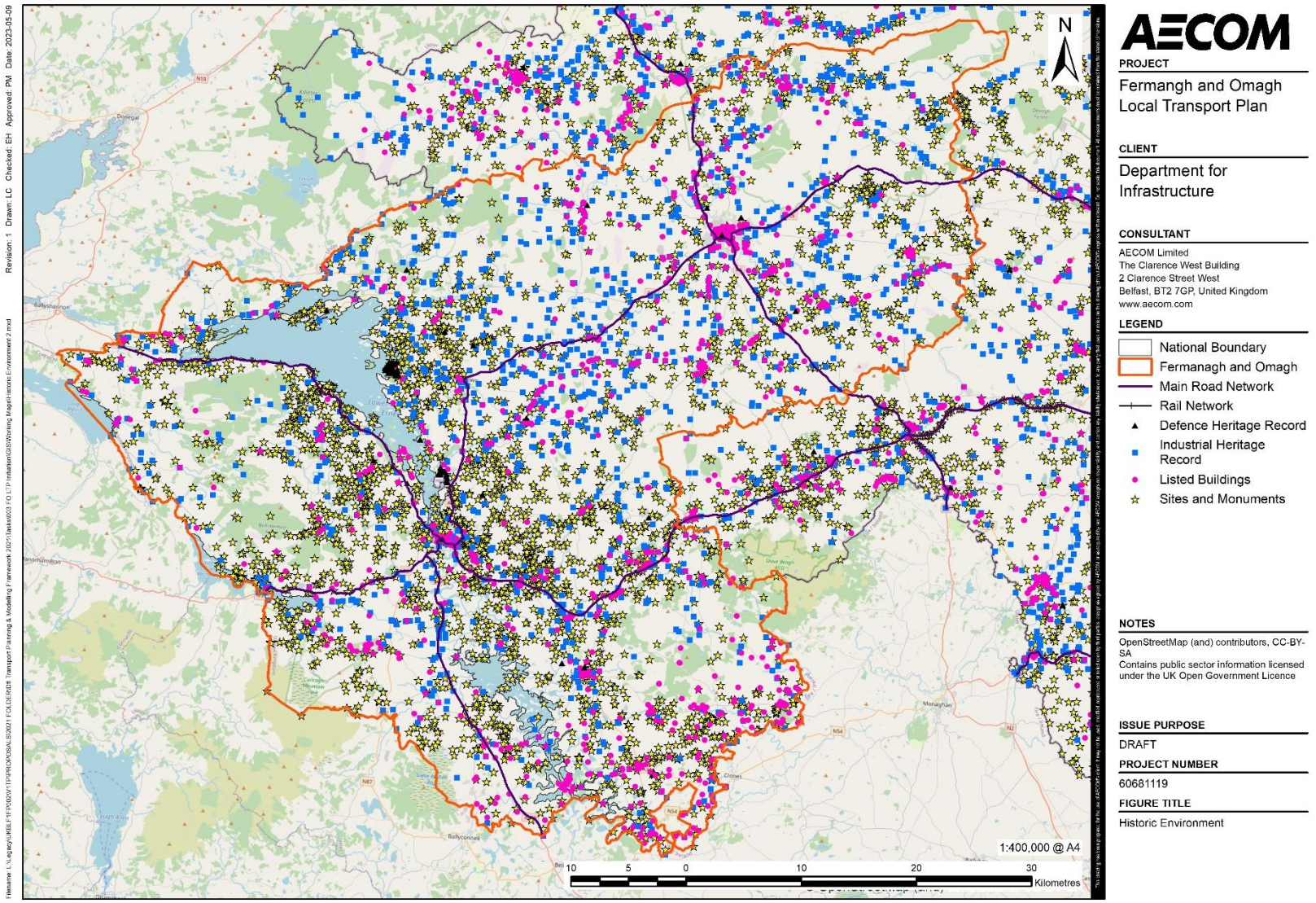

Figure 6.1 Defence Heritage Records, industrial Heritage Records, listed buildings, and sites and monuments in and around Fermanagh and Omagh

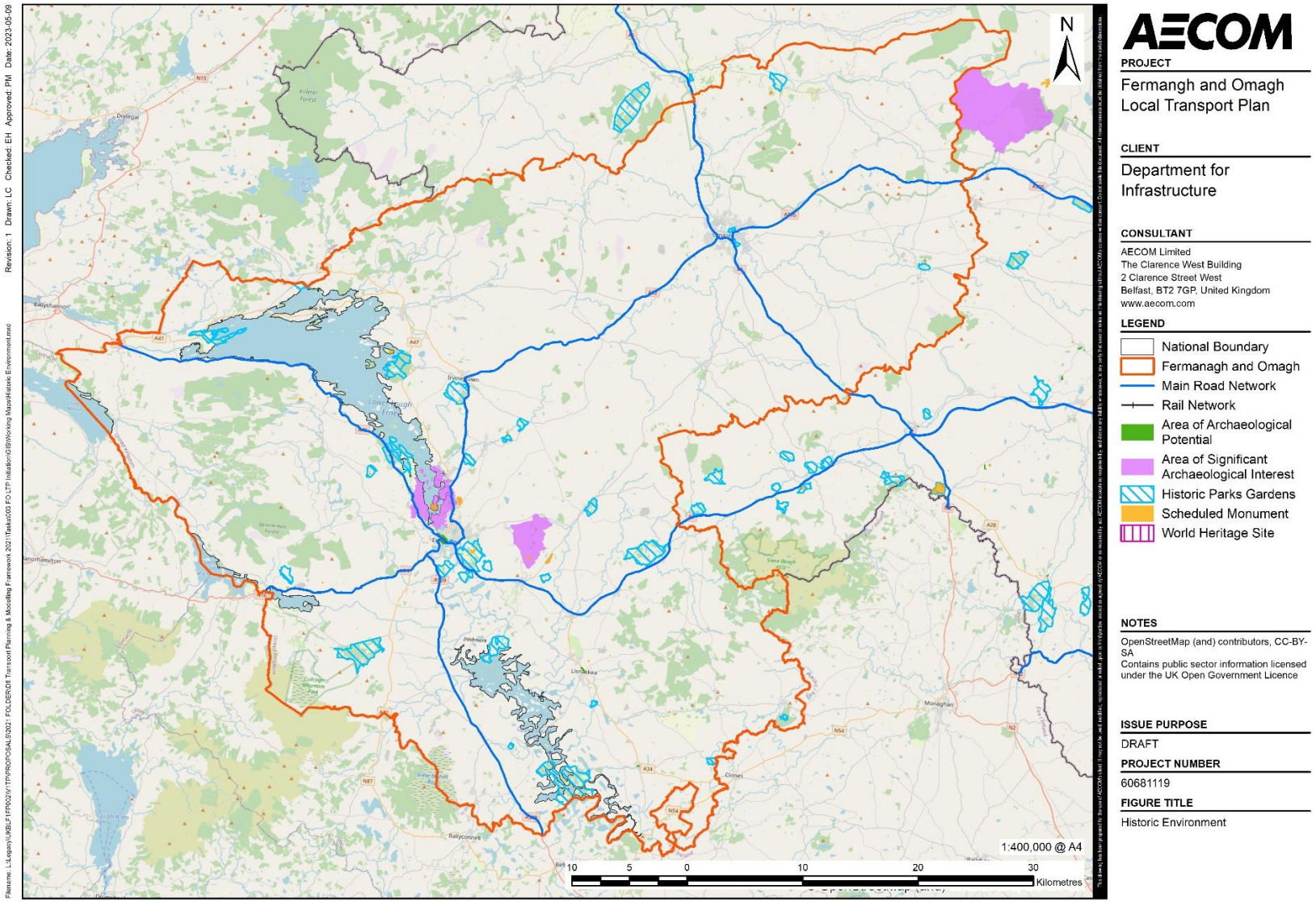

Figure 6.1 Areas of Archaeological Potential, Areas of Significant Archaeological Interest, historic parks and gardens, and scheduled monuments in and around Fermanagh and Omagh

7. Landscape

Focus of ISA topic

- Designated and non-designated sites and areas.
- Landscape character and quality.
- Visual amenity.

Baseline summary

Summary of current baseline

Areas of Outstanding Natural Beauty

7.1 Fermanagh and Omagh has attractive, largely unspoilt, and high-quality rural landscapes, as well as numerous protected area designations.

7.2 Through the Nature Conservation and Amenity Lands Order (Northern Ireland) 1985 (NCALO), the finest landscapes across Northern Ireland can be designated as Areas of Outstanding Natural Beauty (AONBs). The protection of cultural values, the promotion of public enjoyment, and the fostering of the social and economic wellbeing of local communities sit alongside nature conservation at these sites.

7.3 There is one AONB located in the northeastern part of Fermanagh and Omagh, which is the Sperrin AONB[21]. The Sperrin AONB encompasses a largely mountainous area of great geological complexity. Stretching from the Strule Valley in the west, to the perimeter of the Lough Neagh lowlands in the east, this area presents vast expanses of moorland penetrated by narrow glens and deep valleys. In its south, the Burren area is noted for its lakes, sandy eskers and other glacial features. The area is rich in historic and archaeological heritage and folklore.

7.4 Regarding the location of the AONB in relation to Fermanagh and Omagh's road network, the Sperrin AONB overlaps with both the A5 and A505 to the north of Omagh (see **Figure 7.1** at the end of this chapter).

Landscape character and quality

7.5 Fermanagh and Omagh is largely a lowland pastoral landscape, centred around the historical county towns of Omagh in the north and Enniskillen, in Fermanagh, in the south, the two largest settlements within the area.[22] However, there is great diversity in the landscape, from the wild upland landscapes of the Sperrins to the north, the scenic 'lakelands' of Fermanagh, and karst limestone uplands, which are unique to Northern Ireland.

7.6 In the south west of the district, bordering the Republic of Ireland, are the 'Fermanagh Cavelands', a landscape of distinctive sandstone and limestone uplands, including key landscape features Cuilcagh Mountain, the Cliffs of Magho, dramatic escarpments, and other karst features resulting from the

[21] DAERA (no date): 'Sperrin AONB', [online] available to access via this link
[22] FODC (2018): 'Landscape Character Review for Fermanagh and Omagh', [online] available to access via this link

underlying limestone geology. Fermanagh and Omagh is also home to the Cuilcagh Lakelands UNESCO Global Geopark, which spans across the border into Count Cavan in the Republic of Ireland.

7.7 To the southeast and northwest of Enniskillen, Upper and Lower Lough Erne lie within shallow and expansive lowland lough basins, set within drumlin farmland of the river Erne valley. This low-lying landscape is juxtaposed with the dramatic features of the more upland landscape to the west, including the Cliffs of Magho. The area is important for recreation and tourism.

7.8 In the north east of the district, towards Omagh, are low-lying pastoral landscapes characterised to a varying extent by rolling drumlins. This landscape is enclosed by the sandstone plateaus of Brougher Mountain to the south, and the hills of West Tyrone to the north. The Brougher Mountain uplands further separate the farmlands between Irvinestown and Omagh from the lowlands of the Clogher Valley to the south east. The lowlands of Rosslea and Newtownbutler in the south of the district are separated by the uplands of Slieve Beagh.

7.9 To the north of Omagh, the landscape changes dramatically, with the lowland farmland and sandstone plateaus giving way to more pronounced hill summits, including Bessy Bell and Mullaghcarn, which mark the gateway to the upland landscape of the Sperrins. As outlined above, much of this landscape is designated as an AONB in recognition of its nationally important scenic value.

Landscape Character Areas

7.10 Landscape Character Areas (LCAs) were established over 20 years ago during the completion of the Northern Ireland Landscape Character Assessment (NILCA) in 2000.[23] However, the NILCA has since been superseded by Fermanagh and Omagh District Council's Landscape Designation Review (2018)[24] . As shown in **Figure 7.2** in at end of this chapter, there are 27 LCAs that fall either wholly or partially within Fermanagh and Omagh. These are listed below in bold, alongside their corresponding Landscape Character Type (LCT) in italic:

- **1 – Garrison**, *Lowland Farmland*
- **2 – Lower Lough Erne (North)**, *Lough Basin*
- **3 – Croagh and Garvary River**, *Lowland Hills*
- **4 – Lough Navar and Ballintempo**, *Limestone Uplands*
- **5 – Lough Macnean**, *Lough Basin*
- **6 – The Knockmore Scarpland**, *Limestone Uplands*
- **7 – Sillees River**, *Broad Lowland Valley*
- **8 – Arney River**, *Broad Lowland Valley*
- **9 – Cuilcagh and Marlbank**, *Limestone Uplands*
- **10a – Slieve Rushen**, *Limestone Uplands*

[23] DAERA (no date): 'Northern Ireland Landscape Character Assessment 2000', [online] available to access via this link
[24] FODC (2018): 'Landscape Designation Review for Fermanagh and Omagh', [online] available to access via this link

- **10b – Derrylin and Kinawley**, *Lowland Farmland*
- **11 – Upper Lough Erne**, *Lough Basin (Part)*
- **12 – Newtonbutler and Rosslea**, *Lowland Farmland*
- **2b – Lower Lough Erne (South)**, *Lough Basin*
- **14a – Lough Bradan**, *Lowland Farmland*
- **14b – Lough Braden**, *Sandstone Ridges and Plateau*
- **15 – Irvinestown**, *Lowland Farmland*
- **16 – Brougher Mountain and Slievemore**, *Sandstone Ridges and Plateau*
- **17 – Clogher Valley**, *Lowland Farland*
- **18 – Slieve Beagh**, *Sandstone Ridges and Plateau*
- **21 – Drumquin**, *Broad Lowland Valley*
- **22 – Omagh**, *Lowland Farmland*
- **23 – Camowen River**, *Broad Lowland Valley*
- **24 – South Sperrin**, *Upland Hills and Valleys*
- **25 – Beaghmore Moors and Marsh**, *Lowland Hills*
- **26 – Bessy Bell and Gortin**, *Upland Hills and Valleys*
- **43 – Carrickmore**, *Lowland Hills*

7.11 Each LCA has distinctive features and qualities which contribute to their character (i.e. geology, landform, cultural and ecological features etc.). The Landscape Character Assessment also provides guidance for the management of LCAs in response to new development. New development areas have the potential to adversely impact upon the distinctive qualities of each LCA in the absence of sensitive design.

Regional Landscape Character Areas

7.12 More recently, the Northern Ireland Regional Landscape Character Assessment (NIRLCA)[25] was completed in 2016, with seven Regional Landscape Character Areas (RLCAs) identified in Fermanagh and Omagh. The assessment also identifies 'forces of change' for each RLCA, which can be attributed to different development types (including transportation). A description of the RLCAs which identify transportation as a past, present, or future force of change are provided on the next page. This evidence base can be used to enable informed decisions to be made about the future protection, management and sustainable development of Fermanagh and Omagh's landscapes, and can be complemented by more detailed local studies.

7.13 RLCAs in Fermanagh and Omagh where transportation is identified as a past, present, or future force of change are:

- **RLCA3 (Clogher Valley and Slieve Beagh)** – The A4 is a key route through Northern Ireland and has been upgraded to dual carriageway as far west as Ballygawley. Further upgrades to the A4 have been carried out as

[25] DAERA (2016): 'Regional Landscape Character Areas map viewer', [online] available to access via this link

far west as Augher, though these are not on the same scale. Beyond this, the road is less engineered and retains a more rural character, passing through the towns of Augher, Clogher and Fivemiletown. Further upgrades or by-pass schemes may be proposed in future, which would introduce engineered structures into this rural landscape. A major dual-carriageway upgrade of the A5, between Ballygawley and Auchnacloy, is currently under consideration.

- **RLCA4 (Omagh Basin)** – A major upgrade of the A5 road is currently under consideration, which would see a new dual carriageway constructed across this landscape, following the existing A5. The proposed route runs alongside the River Strule from Mountjoy, passing west and south of Omagh, to Garvaghy and Ballygawley. Numerous bridges, cuttings, embankments, and junctions will be built as part of the scheme, in contrast to the relatively rural nature of the present A5.

7.14 It is useful to note that transportation is only one of the 'forces of change' categories which are included in Northern Ireland's Regional Landscape Character Assessment. Additional forces of change identified in the assessment, which have the potential to be directly and indirectly influences by transport related issues, may include (but are not limited to): climate change, habitats and field systems, tranquillity, built development, and tourism.

7.15 The assessments listed above will be a source of evidence during the next stages of the ISA process (alongside any AONB Management Plans prepared for the regionally designated landscapes across Northern Ireland).

Areas of High Scenic Value

7.16 The LDP Plan Strategy 2030 outlines that the council has designated three Areas of High Scenic Value (AoHSVs). These are those parts of the countryside that are of a relatively unspoilt nature, and which provide an attractive setting of local importance. They are:

- Cuilcagh, Marlbank and Lower Lough Macnean
- Upper Lough Erne
- Lower Lough Erne

Special Countryside Areas

7.17 Special Countryside Areas (SCAs) are regarded as exceptional landscapes and include areas such as stretches of coast or lough shores, as well as certain views or vistas. The quality of the landscape and amenity value is such that development should only be permitted in exceptional circumstances. The islands of Lough Erne, Lough Macnean and Lough Melvin were originally identified in the Fermanagh Area Plan (2007) as Countryside Policy Areas (CPAs) and replaced by SCAs in the Department of the Environment's Planning Policy Statement 21 (2010).

Visual amenity

7.18 It is useful to note that the views across the region are also an important consideration in the planning process as the scale, height and mass of development can ultimately impact important views if they are not considered

and assessed through the process. Changes due to both development and landscape manipulation can see these views degraded over time.

7.19 In this respect, views experienced from the road network can often be far reaching and dramatic, particularly within the more rural areas of Fermanagh and Omagh, within the AONB, and on the approach into key towns.

Summary of future baseline

7.20 New infrastructure provision across Fermanagh and Omagh has the potential to lead to incremental but small changes in landscape character and quality. This includes from the loss of landscape features and areas with an important visual amenity value. Increasing traffic levels associated with an increase in population also has the potential to negatively impact landscape character and tranquillity.

Key sustainability issues

7.21 The following key issues have been identified through the baseline review for this topic:

- There is one AONB located within Fermanagh and Omagh, which is the Sperrin AONB, located in the northeastern extent of the district.
- Fermanagh and Omagh District Council's Landscape Designation Review (2018) identifies 27 LCAs in Fermanagh and Omagh. In addition, NIRLCA (2016) identifies seven RLCAs in the district. The assessment provide a summary of the character, sensitivities, and forces of change for each area.
- Within the NIRLCA (2016), transportation is identified as a force of change for two of the seven RLCAs in Fermanagh and Omagh. Additional forces of change identified in the assessment, which have the potential to be directly and indirectly influences by transport related issues, may include (but are not limited to): climate change, habitats and field systems, tranquillity, built development, and tourism.
- Local designations also recognise landscapes within the district, including AoHSVs and SPCs.
- Views are also an important consideration in the planning process as the scale, height and mass of development can ultimately impact important views if they are not considered and assessed through the process.

7.22 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

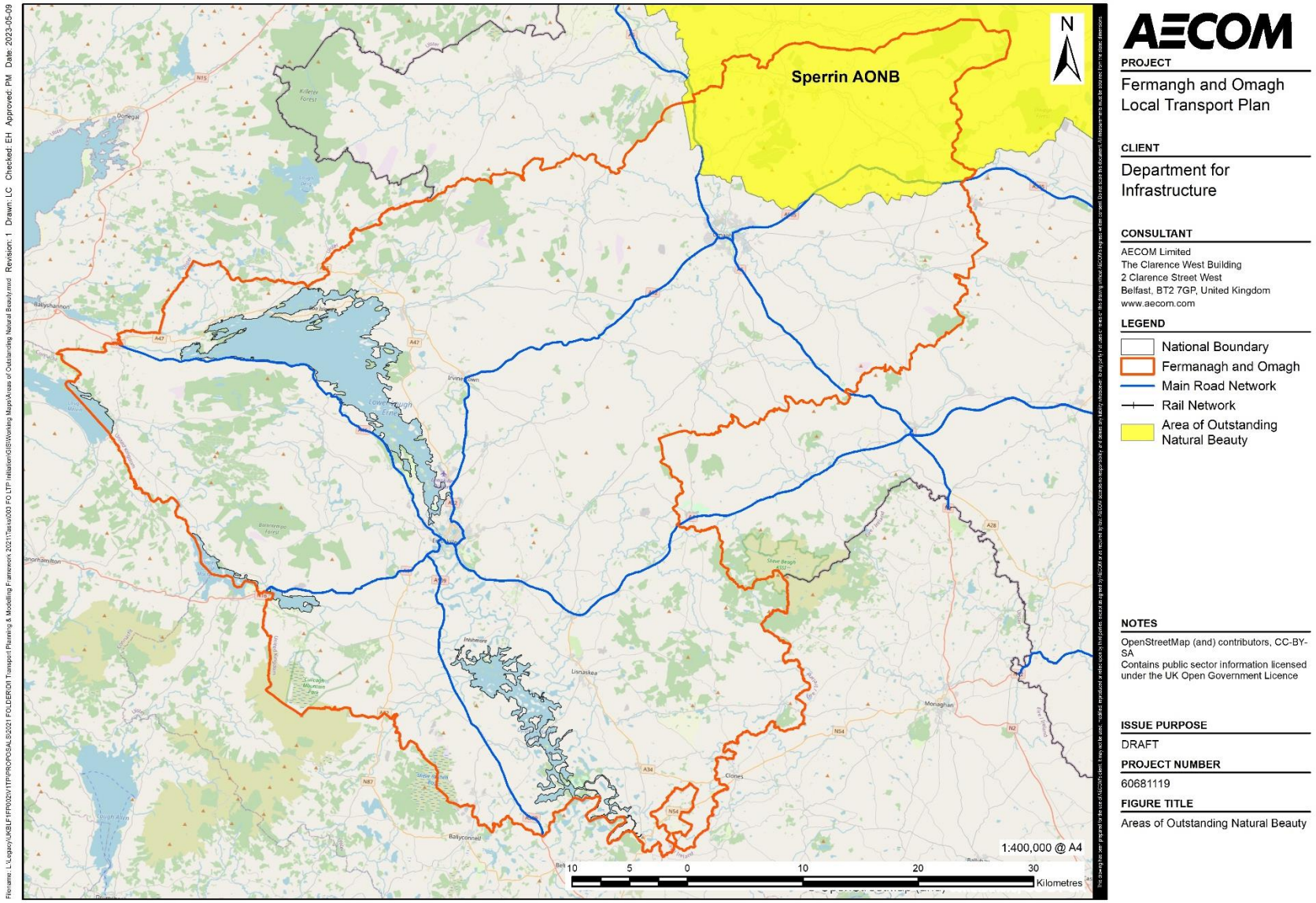

Figure 7.1 Location of the Sperrin AONB in relation to Fermanagh and Omagh

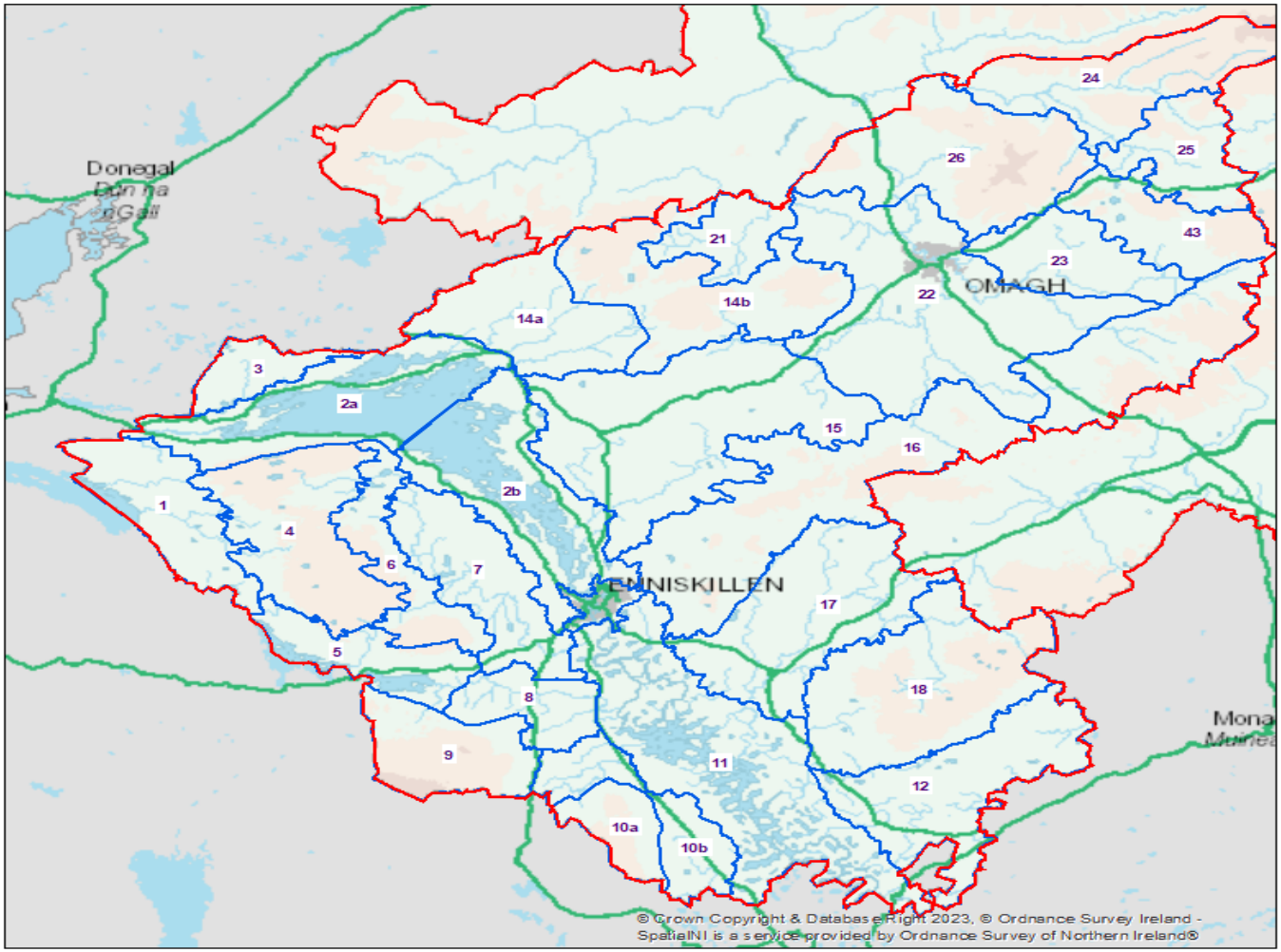

Figure 7.2 LCAs Fermanagh and Omagh District Council

Legend

- Council Boundaries
- Landscape Character Areas

Figure 7.2 LCAs in and around Fermanagh and Omagh

8. Air quality and noise

Focus of ISA topic

- Air pollution sources.
- Air quality hotspots.
- Air quality management.
- Noise pollution.

Baseline summary

Summary of current baseline

Air Quality Management Areas

8.1 Air quality in Northern Ireland has improved substantially in recent decades. Concentrations of sulphur dioxide, a pollutant associated with coal and oil combustion, have declined significantly over the past twenty years. However, some pollutants in some parts of Northern Ireland continue to exceed air quality objectives. Nevertheless, there are no active Air Quality Management Areas (AQMAs) in Fermanagh and Omagh at present.

8.2 The nearest air quality monitoring site to Enniskillen is in Lough Navar, which is located to the west of Lower Lough Erne. The monitored pollution level here is currently low.[26] The nearest air quality monitoring site to Omagh is in Newtownstewart, just outside of the border of Fermanagh and Omagh in neighbouring County Tyrone. The pollution level here is also currently low.

Noise pollution

8.3 As a result of the Environmental Noise Directive (2002/49/EC), preliminary noise mapping has been produced for Northern Ireland. The Environmental Noise Regulations (Northern Ireland) 2006 require that noise from various transport and industrial noise sources be mapped every five years. The transport noise sources that are mapped are road, rail and air traffic.

8.4 Three 'rounds' of noise maps have been completed. Round 1 was based on 2006 data, whilst Round 2 used 2011 data and Round 3 used 2016/ 17 data. Round 3 noise maps have been produced for the following sources[27]:

- Major roads – roads with more than 3 million vehicle passages annually.
- Major railways – railways with more than 30,000 train passages annually.
- Major airports – airports with more than 50,000 movements annually.
- Agglomerations – urban areas with more than 100,000 inhabitants.

8.5 Accessible on DEARA's webpages, figures are available for the main road and main rail networks across Northern Ireland (both during daytime hours and during the night time period). On the wider main road networks, the extent of

[26] DAERA (2023): 'Northern Ireland Air', [online] available to access via this link
[27] DAERA (2018): 'Round 3 Noise Maps and Noise Mapping Technical Reports', [online] available to access via this link

areas mapped above 55dB has increased from the Round 2 mapping by up to 4% for the daytime noise indicators, and between 7-10% for the night time noise indicators. However, the report notes that making direct comparisons between Round 2 and Round 3 data is difficult, given the overall changes in the extent of the roads which were mapped during Round 3.

Roads that contribute to noise pollution

8.6 Transportation in Fermanagh and Omagh is primarily provided by the road network.[28] Both Enniskillen and Omagh towns lie along key transport corridors, the A4 and A5 respectively, which provides links to Derry/ Londonderry, Belfast and Dublin. Enniskillen is also linked to the Republic of Ireland via the N3 at County Donegal, the N16 (Sligo), N87 and N3 at County Cavan, and the N54 at County Monaghan.

8.7 In Fermanagh, the A32, A34, A46 and A509 are also 'A' classified routes, as well as the A505 and the A32 route in the Omagh area. Notably, there are no motorway or dual carriageway sections within Fermanagh and Omagh. The remainder of the road network comprises both 'B' class and minor roads – both classified and unclassified. The road network in the Fermanagh and Omagh area accounts for a significant proportion of Northern Ireland's road network, which reflects the large geographical spread of the district.

8.8 Noise pollution across the district is likely to be highest along these roads, particularly the A roads that connect the largest settlements of Enniskillen and Omagh to the surrounding areas both within and outside of the district.

Airports that contribute to noise pollution

8.9 Enniskillen Airport is located three miles north of Enniskillen, in County Fermanagh.[29] It has been in existence for over sixty years (since the Second World War) and is one of only five licensed airports in Northern Ireland, and one of the only two in the west of Northern Ireland. Noise pollution is likely to be significant in and around this airport.

Summary of future baseline

8.10 Future infrastructure provision has the potential to increase the amount of traffic on the key routes through Fermanagh and Omagh, with the potential for increasing pollutants. Cleaner vehicles, including the update of electric vehicles (EVs), have the potential to lead to improvements in air quality over the longer term. The provision and management of EV charging points across Fermanagh and Omagh has the potential to lead to positive effects in terms of addressing EV challenges, including through increasing public confidence in charging infrastructure.

Key sustainability issues

8.11 The following key issues have been identified through the baseline review for this topic:

- There are no active AQMAs in Fermanagh and Omagh at present.

[28] FODC (2018): 'Local Development Plan – Transportation', [online] available to access via this link
[29] FODC (2018): 'Local Development Plan – Transportation', [online] available to access via this link

- Outside key towns, areas of noise concern across Fermanagh and Omagh broadly link to and follow the routes of the road network.

8.12 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

9. Climate change

Focus of ISA topic

- GHG emissions.
- Potential effects of climate change.
- Flood risk.
- Climate change resilience.

Baseline summary

Summary of current baseline

Climate change and transport

9.1 Northern Ireland's current climate is characterised by relatively mild winters, cool summers and periods of more extreme weather. During the 21st Century, Northern Ireland is projected to experience increasing average temperatures throughout the year, an increase in average rainfall in winter, a decrease in average rainfall in summer, and rising sea levels (UK Climate Projections 2018, UKCP18). **Figures 9.1 and 9.2** overleaf illustrate the climate projections for annual mean temperature and annual rainfall for Northern Ireland.

9.2 Emissions from transport are a significant contributor to climate change. As such, there are two linkages between transportation and climate change that are important: 1) transportation is responsible for a significant portion of climate change through the emission of vehicular GHG emissions, and 2) a changing climate could have serious consequences on the resiliency and performance of transportation systems in response to environmental conditions.

9.3 The hazards of a changing climate, such as warmer climate, changes in precipitation patterns, higher severity storms, increasing risk of flooding and larger storm surge, could have serious implications on a wide variety of natural and human systems, including transportation.

9.4 In this respect, climate change is likely to damage transportation infrastructure, affecting the reliability and capacity of transportation systems. Climate change impacts will also likely increase the cost of Northern Ireland's transportation systems.

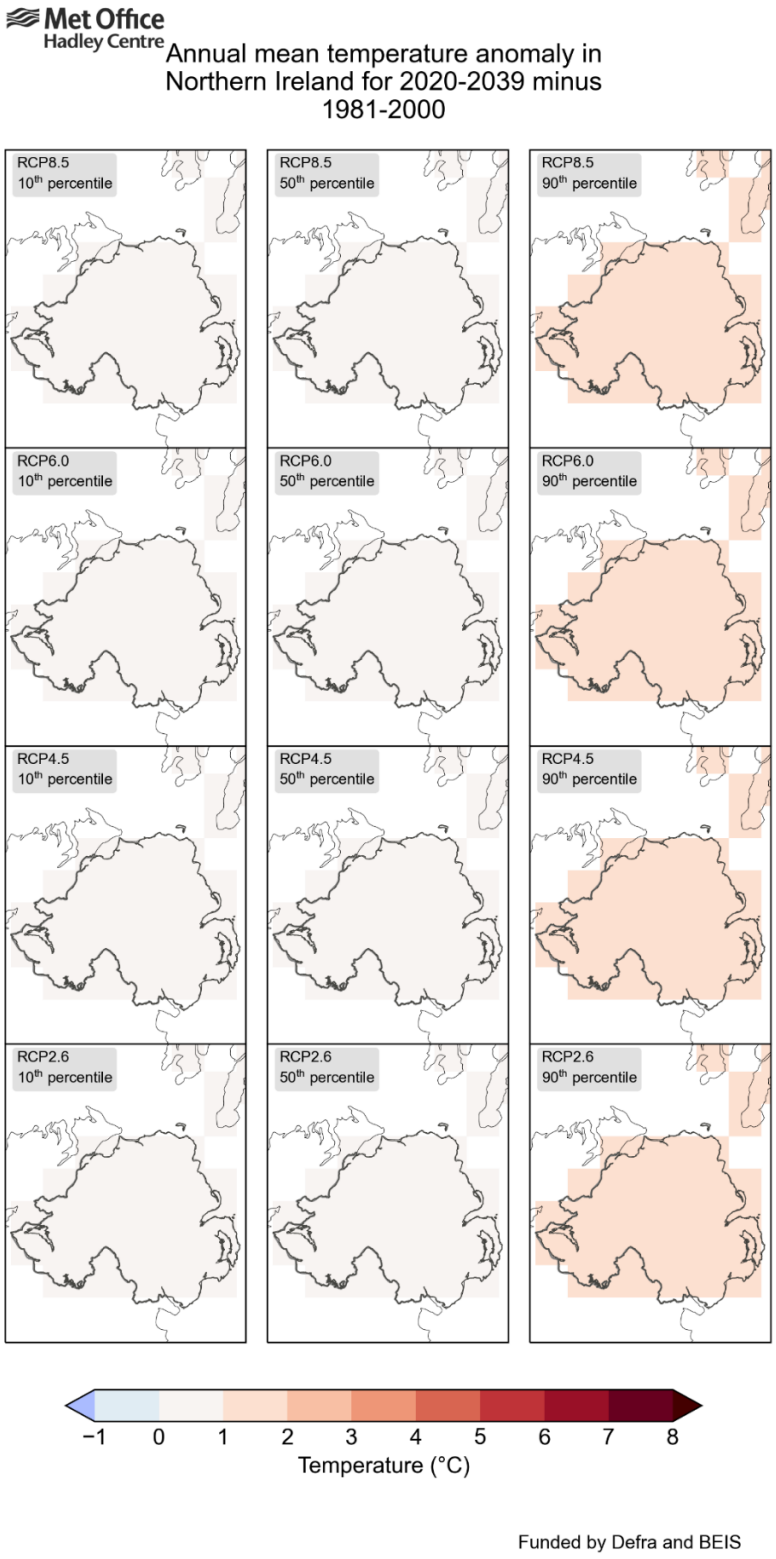

Figure 9.1 UKCP18 annual mean temperature anomaly in Northern Ireland[30]

[30] Probabilistic projections that combine climate model data, observations and advanced statistical methods to simulate a wide range of climate outcomes for four emissions scenarios (RCP2.6, RCP4.5, RCP6.0, RCP8.5). A Representative Concentration Pathway (RCP) is a greenhouse gas concentration trajectory adopted by the IPCC. Four pathways have been selected for climate modelling and research, which describe different climate futures, all of which are considered possible depending on how much greenhouse gases are emitted in the years to come. The four RCPs, namely RCP2.6, RCP4.5, RCP6, and RCP8.5, are labelled after a possible range of radiative forcing values in the year 2100 relative to pre-industrial values.

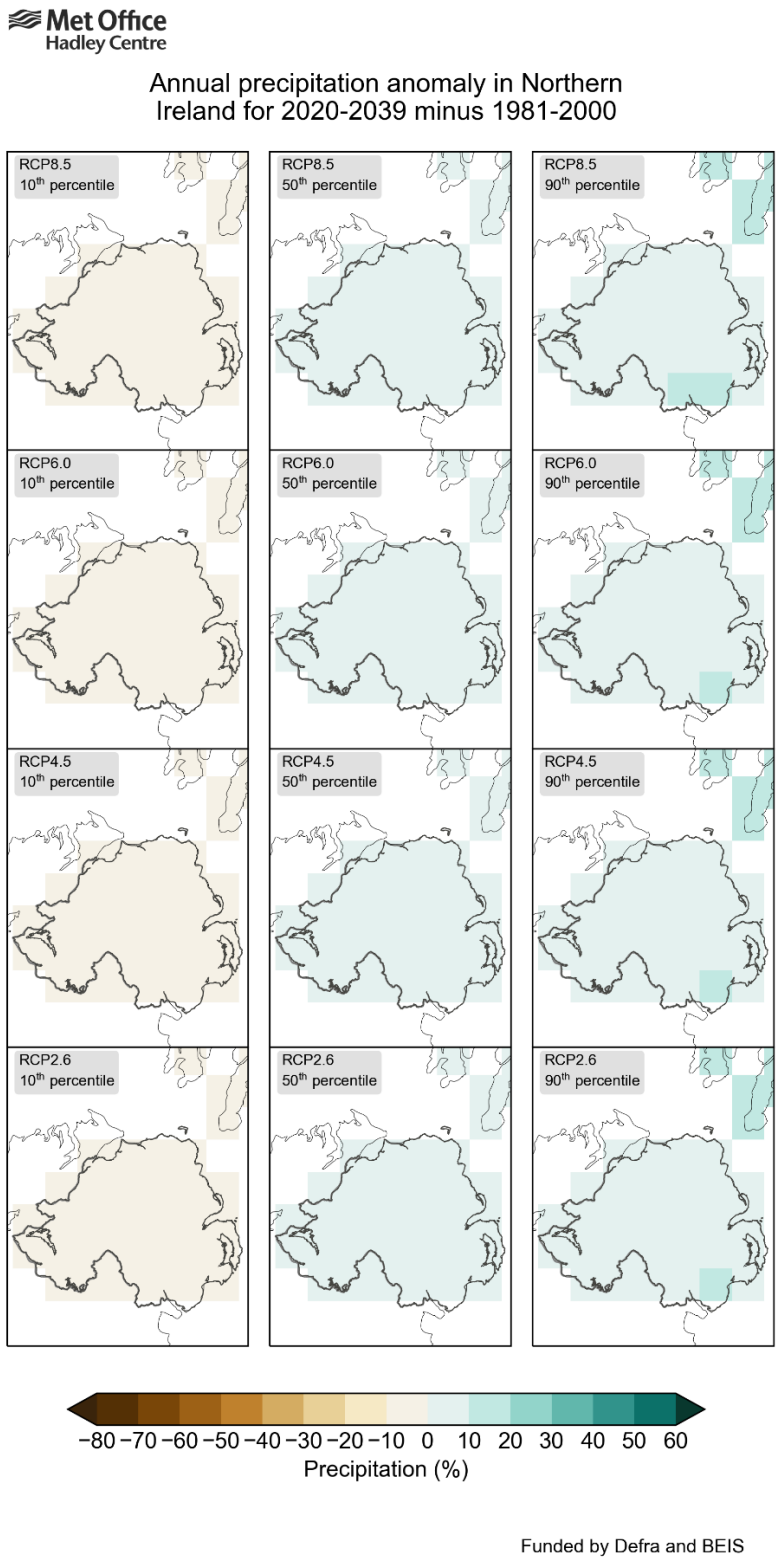

Figure 9.2 UKCP18 annual precipitation anomaly in Northern Ireland

9.5 Mean annual maximum and minimum temperatures have been rising since the end of the 19th Century. Such changes in temperature extremes have implications for agriculture and health. Rainfall is also important for agriculture. There is some evidence of an upward trend in mean annual rainfall, with less rain falling in summer months. The 1970s had lower levels of rainfall, but there is no strong trend in recent years. Growing seasons fluctuate, and since the 1980s, there has been a tendency for a longer growing season.

9.6 Northern Ireland is already seeing a number of changes as a result of climate change, including changes in the growing, breeding and migration seasons, shifts in species abundance and diversity, and changing weather patterns with the potential for more floods and droughts. Continued reliance on fossil fuels and growing demand for energy for transport and for housing will escalate emissions of carbon dioxide to increasingly dangerous and potentially irreversible levels.

9.7 The third UK Climate Change Risk Assessment was published in 2021. The key findings for Northern Ireland were:

- Milder winters are projected to reduce fuel poverty and overall financial pressures on households from the reduction in winter energy demand.
- Hotter summers, however, may lead to a rise in heat-related deaths and hospital admissions and increased demand for air conditioning.
- Less summer rainfall may lead to a reduction in river flows, affecting public water supplies and increasing the risk of pollution, and a reduction in soil moisture, potentially damaging natural ecosystems.
- Flooding may pose an increasing threat to people, property, critical infrastructure, agriculture and important natural habitats.
- Some native animal and plant species may decline in the face of threats presented by pests, diseases and non-native invasive species.
- Agricultural output may be adversely affected from droughts, pests and disease, exacerbated by higher temperatures.

9.8 The Northern Ireland GHG inventory contains data detailing GHG emissions in Northern Ireland from 1990 to the latest reporting year. It is a subset of the UK GHG inventory, which is produced to fulfil both European Union Monitoring Mechanism (EUMM) and United Nations Framework Convention on Climate Change (UNFCCC) reporting requirements the UK has under the Kyoto Protocol. It is compiled in line with international guidance from the International Panel on Climate Change (IPCC). Key points from the DAERA 2020 statistical bulletin[31] are:

- In 2020, Northern Ireland's GHG emissions were estimated to be 20.9 million tonnes of carbon dioxide equivalent ($MtCO_2e$). In 1990, the estimate was 27.5 $MtCO_2e$, and therefore GHG emissions have gradually decreased between 1990 and 2020.
- Northern Ireland accounted for 5.2% of UK GHG emissions in 2020, when it only makes up approximately 2.8% of the population of the UK.
- Agriculture (27%) was the largest emitting sector of GHG emissions in 2020, followed by transport (16%). Whilst most sectors have seen a decrease in GHG emissions since 1990, emissions from agriculture have increased by 6%. Notably, GHG emissions from transport have only decrease by 2%, which is negligible compared to the 46% decrease in

[31] DAERA (2022): 'Northern Ireland greenhouse gas inventory 1990 – 2020 statistical bulletin', [online] available to access via this link

GHG emissions seen for energy supply. This can largely be attributed to the switch from coal to natural gas.

9.9 The Northern Ireland GHG inventory is not currently available at local authority level. However, considering CO_2 emissions alone, Fermanagh and Omagh District Council's Climate Change and Sustainable Development Action Plan (2021-2024)[32] states that the district was responsible for 1,614 Kt CO_2 in 2019. This equates to 13.7 tCO_2 per capita. Notably, there was a 28.8% decrease in CO_2 emissions in Fermanagh and Omagh between 2005 and 2019.

9.10 Land use, land use change and forestry was the largest emitting sector in Fermanagh and Omagh in 2019, contributing 37.9% of CO_2 emissions. The transport sector contributed 22.7% of CO_2 emissions, making it the second largest emitting sector. Of the eleven districts in Northern Ireland, Fermanagh and Omagh was the seventh highest emitter of CO_2 emissions in 2019.

9.11 Climate change is a global issue and therefore transboundary in nature. Climate change has the potential to exacerbate erosion and flooding issues on an all-island scale and as such, climate change resilience and adaptation should take account of transboundary impacts in other plan areas.

Summary of future baseline

9.12 Climate change has the potential to increase the occurrence of extreme weather events in Northern Ireland, with increases in mean summer and winter temperatures, increases in mean precipitation in winter, and decreases in mean precipitation in summer. This is likely to increase the risks associated with climate change, including surface water and fluvial flood risk, as well as flooding by sea. This will result in an increased need for resilience and adaptation for transport infrastructure.

9.13 In terms of climate change mitigation, per capita emissions are likely to continue to decrease as energy efficiency measures, renewable energy production, and new technologies become more widely adopted. In particular, an ongoing increase in the use of EVs has the potential to reduce emissions from transport. In this respect, the UK Government has stated that it will disallow the sale of petrol and diesel cars and vans after 2030, and hybrids after 2035. More stringent emission standards on manufacturers will also help accelerate the trend to alternatively powered vehicles.

9.14 In line with the above, a modal shift to more sustainable modes of transportation, as well as improving the active travel network and reducing the need to travel through encouraging home working, would also be beneficial to reducing transport emissions in Northern Ireland.

Key sustainability issues

9.15 The following key issues have been identified through the baseline review for this topic:

[32] FODC (2021): 'Climate Change and Sustainable Development Action Plan 2021-2024', [online] available to access via this link

- A range of flood risk issues exist across Northern Ireland, including linked to fluvial, surface water, and groundwater flooding and inundation from the sea.
- Road transportation is a major contributor of CO_2 emissions (which is one of the main components of GHGs) in Northern Ireland, and therefore a major factor in exacerbating climate change. However, the ongoing transition towards electric and hybrid vehicles and increase in home working has the potential to help reduce emissions from transport in the long-term.
- The transport network has the potential to become increasingly vulnerable to the potential effects of climate change in forthcoming years. As such the resilience of the transport network to the likely impacts of climate change will be a key factor in its effective functioning.

9.16 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

10. Healthy and safe communities

Focus of ISA topic

- Population.
- Health and wellbeing.
- Crime and community safety.
- Road safety.

Baseline summary

Summary of current baseline

Population estimates and change

10.1 At the time of the 2021 census, the population of Fermanagh and Omagh was 116,812, which made it the smallest local authority. Notably, this represents a 3.2% increase since the 2011 census. The population is spread across 45,715 households.

10.2 With a focus on migration, 85% of the population of Fermanagh and Omagh were born in Northern Ireland. Of the remaining 15%, 6% arrived before 2001, 5% arrived between 2011 and 2021, and 4% arrived between 2001 and 2010.

10.3 In terms of the age breakdown of the district, 20% of the population of Fermanagh and Omagh are 0-14 years, 29% are 15-39 years, 33% are 40-64 years, and 18% are 65+ years. Since the 2011 census, the proportion of younger people has decreased, whilst the proportion of older people has increased.

Northern Ireland Multiple Deprivation Measure

10.4 The Northern Ireland Multiple Deprivation Measures (NIMDM 2017), were informed through public consultation and Steering Group agreement, and provide a mechanism for ranking the 890 Super Output areas (SOAs) in Northern Ireland from the most (rank 1) to least deprived (rank 890).[33]

10.5 They include ranks of the areas for each of seven distinct types (or domains) of deprivation, which have been combined to produce an overall NIMDM rank of the areas. The MDM ranks of the areas should be considered in conjunction with those for each of the seven domains in order to gain a comprehensive picture of deprivation.

10.6 **Figure 10.1** at the end of this chapter shows the overall NIMDM across Fermanagh and Omagh, with the light purple areas ranked as the least deprived, and the dark purple areas ranked as the most deprived. Notably, the two main settlements, Enniskillen and Omagh, are relatively deprived when compared to the more rural areas surrounding them. Several SOAs along the district's boundary with the Republic of Ireland are also relatively deprived.

[33] NISRA (no date): 'Northern Ireland Multiple Deprivation Measure 2017 (NIMDM 2017)', [online] available to access via this link

Health and wellbeing

10.7 In terms of general health, 79% of the population of Fermanagh and Omagh are in good or very good health, 14% are in fair health, and 7% are in bad or very bad health. Notably, 24% of the population have their day-to-day activities limited by a health problem or disability, whilst 12% of the population aged 5 years and over provide unpaid care.

10.8 With a focus on methods of travel to work, the 2021 census indicates that only 6% of the population of Fermanagh and Omagh walk or cycle to walk. Meanwhile, 70% drive a car or van to work, 16% work mainly at or from home, 4% are a passenger in a car or van, and less than 1% travel to work by bus or train. The remaining 2% selected 'other' as a means of travel to work.

10.9 Moving on to methods of travel to study, 10% of the population of Fermanagh and Omagh walk or cycle to a place of study. Meanwhile, 44% are passengers in a car or van, 34% travel by bus or train, 6% drive a car or van, 3% study mainly at or from home, and 2% selected 'other'.

Crime and community safety

10.10 According to data provided by the Police Service of Northern Ireland (PSNI) and the Northern Ireland Statistics and Research Agency (NISRA)[34], there were 4,384 recorded crimes in Fermanagh and Omagh between March 2022 and February 2023. This represents a 5.4% increase on the previous year.

10.11 Broadly speaking, higher crime levels were seen in violence against the person, sexual offences, theft offences, robbery, drugs and possession of weapons offences across Northern Ireland. Meanwhile, lower crime levels were seen in burglary, criminal damage and public order offences.

Road safety

10.12 Also according to data provided by the PSNI and NISRA[35], there were 459 police recorded injury road traffic casualties in 2022. Of this figure, 393 were slightly injured, 57 were seriously injured, and nine were killed. Notably, there were 402 casualties in 2021, and therefore there was a 14.2% increase in casualties in 2022.

Summary of future baseline

10.13 The population of Fermanagh and Omagh is predicted to grow and age in the future, with associated transport and accessibility issues.

10.14 New housing and employment provision has the potential to increase traffic and cause congestion at key pinch points on Fermanagh and Omagh's transport network.

10.15 Obesity is seen as an increasing issue by health professionals, and one that will contribute to significant health impacts on individuals, including increasing the risk of a range of diseases, including heart disease, diabetes and some forms of cancer. Transport planning will play a key role in encouraging active

[34] PSNI and NISRA (2023): 'Police Recorded Crime in Northern Ireland', [online] available to access via this link
[35] PSNI and NISRA (2023): 'Police Recorded Injury Road Traffic Collisions and Casualties Northern Ireland: 2022 Key Statistics Report', [online] available to access via this link

transport choices (e.g. walking and cycling) as well as accessibility to sports and recreation facilities.

10.16 Changes in air quality and noise quality in the vicinity of certain routes in Fermanagh and Omagh are likely to take place with the implementation of ongoing transport improvements in the district and wider region.

Key sustainability issues

10.17 The following key issues have been identified through the baseline review for this topic:

- Fermanagh and Omagh is experiencing an increase in population, which is likely to translate into a higher demand for transport. The population is also ageing; this has implications for transport provision and accessibility.
- Several SOAs in Fermanagh and Omagh are amongst the 'most deprived' according to the overall NIMDM 2017.
- 24% of the population of Fermanagh and Omagh have their day-to-day activities limited by a health problem or disability, whilst 12% of the population aged 5 years and over provide unpaid care.
- Only 6% of the population of Fermanagh and Omagh walk or cycle to walk, whilst 10% walk or cycle to a place of study. This could imply that active travel infrastructure across the district is currently lacking, or perhaps deemed unsafe to use by residents.
- 25% of the population of Fermanagh and Omagh have no qualifications, which suggests that there may be barriers to education in some parts of the district.
- Recorded crimes in Fermanagh and Omagh increased slightly between 2021 and 2022, however over the long-term crime has been decreasing.
- In terms of road safety, there were more road casualties recorded in Fermanagh and Omagh in 2022 compared to 2021. It is recognised that this may in part be caused by the return of office workers to the office in wake of the Covid-19 pandemic and associated lockdown restrictions.
- Issues associated with rural areas have been discussed in **Chapter 11**.

10.18 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

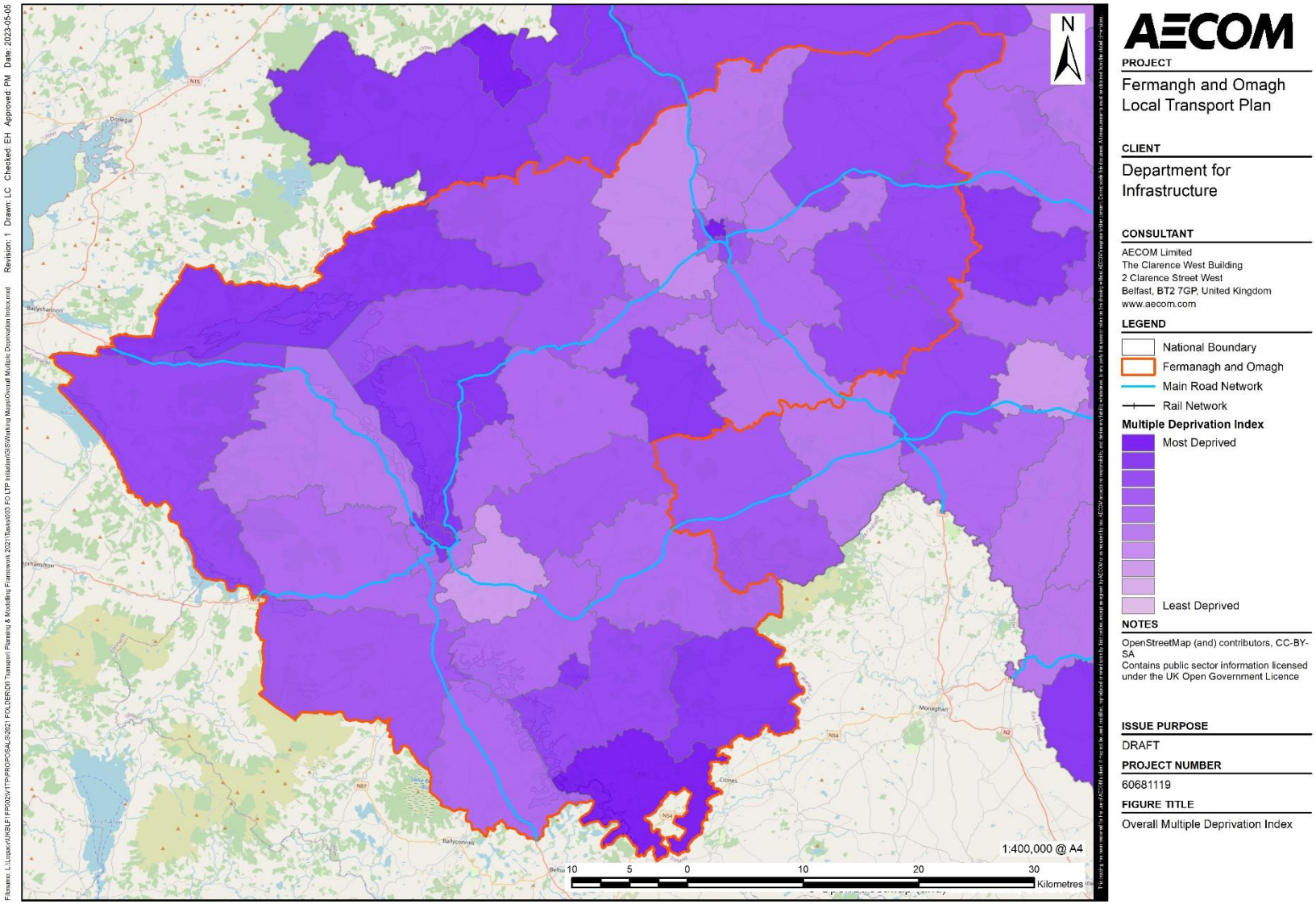

Figure 10.1 Overall NIMDM 2017 by SOA in and around Fermanagh and Omagh

11. Rural proofing

Focus of ISA topic

- Spatial pattern of rural and urban areas.
- Deprivation associated with the access to services domain.
- Urban rural differences.
- Key rural statistics.

Baseline summary

Summary of current baseline

Spatial pattern of rural and urban areas

11.1 A default definition of *"rural"* used in Northern Ireland is that developed by the Inter-Departmental Urban-Rural Definition Group. Initially proposed in 2005 and amended in 2015[36], this definition classifies those settlements with fewer than 5,000 residents together with the open countryside as rural.

11.2 However, in the 2005 and 2015 reports, it was recommended that a prescriptive urban-rural definition should not be given. Rather, it was advised that users should consider defining urban and rural areas in ways which are appropriate for different projects and programmes.

11.3 In this context, a 20- and 30-minutes' drive time to those settlements containing a population of at least 10,000 was also highlighted as an appropriate element to consider for the classification.

11.4 Given the nature of the FOTP as a transport plan, it is viewed that these two elements (i.e. settlement populations and drive times to a larger settlement) provide an appropriate definition of rurality in the context of the Plan.

11.5 The settlements in Fermanagh and Omagh with a population of under 5,000 residents, and whether they are a 20- or 30-minute drive time to a settlement containing a population of at least 10,000, are listed in **Table 11.1** below.

Table 11.1 Settlements under 5,000 population, and drive time to larger settlements

Classification	Settlement	2011 population	20-minute drive time	30-minute drive time
Band F – Intermediate Settlement (population 2,500-4,999)	Lisnaskea	2,900	No	Yes
Band G – Village (Population 1,000-2,499)	Irvinestown	2,264	Yes	Yes
	Ballinamallard	1,432	Yes	Yes
	Dromore	1,202	Yes	Yes

[36] Northern Ireland Statistics and Research Agency (March 2015) Review of the Statistical Classification and Delineation of Settlements

Classification	Settlement	2011 population	20-minute drive time	30-minute drive time
	Fintona	1,160	Yes	Yes
	Lisbellaw	1,102	Yes	Yes
	Maguiresbridge	1,038	Yes	Yes
	Kesh	1,036	No	Yes

Deprivation associated with the 'access to services' domain

11.6 In terms of the strategic road network, the 'access to services' domain of the Northern Ireland Multiple Deprivation Measure (NIMDM) (2017) is a useful indicator to ascertain the impact the current network has on residents in rural areas (i.e. through poor physical connectivity). It should however be noted that the 'access to services' domain does not consider transport on the strategic network solely, but also includes online access to key services.

11.7 The 'access to services' domain is based on three primary inputs, including service weighted fastest travel time by public transport, service weighted fastest travel time by public transport, and proportion of properties with broadband speed below 10mbs. Services considered include libraries, hospitals, supermarkets, GPs, dentists, leisure centres, and schools.

11.8 **Figure 11.3** at the end of this chapter shows the NIMDM relating to the 'access to services' domain across Fermanagh and Omagh, with the white/ light purple areas ranked as the most deprived, and the dark purple areas ranked as the least deprived. Unsurprisingly, the least deprived areas can be seen in and surrounding the main towns of Enniskillen and Omagh, followed by the smaller settlements of Lisnaskea, Irvinestown, Lisbellaw and Fintona. Meanwhile, the most deprived areas – which make up the majority of the district – are found in the countryside, where access to services is very poor.

11.9 Upgrades to the transport network in some areas might improve their NIMDM rank, as access to services by both private vehicle and public transport would be improved with shorter journey times and a more reliable network.

Urban-rural differences and challenges for rural areas in Northern Ireland

11.10 Statistics containing rural/ urban comparisons across a range of social and economic issues are collected by DAERA.

11.11 In the latest publication of Key Rural Issues, Northern Ireland 2022[37], DAERA have highlighted the following recent trends associated with rural areas, including those within Fermanagh and Omagh:

Population and education

- Population growth in rural areas from 2001-2020 has outstripped that in urban areas by a factor of almost 3 to 1 (20% to 7%).
- Young people from rural areas are more likely to leave school with five or more GCSEs at A* to C (82%, 74% in urban areas).

[37] DAERA (2023): 'Key Rural Issues, Northern Ireland 2022', [online] available to access via this link

- Those from rural areas leaving school are also more likely to enter higher education (50%) than their urban peers (46%).

Employment and industry

- Rural people of working age are more likely to be in full-time employment (58%), and less likely to be economically inactive than those living in urban areas.
- Average public sector earnings are substantially higher in urban areas (£28,067, £24,540 in rural areas), with a smaller difference between private sector earnings in rural compared with urban workplaces.
- Workers from rural areas report being more highly skilled and enjoying higher job satisfaction than urban workers.
- More than half (58%) of NI businesses are in rural areas, yet rural businesses account for less than a quarter (21%) of employees and around a quarter (25%) of total business turnover.
- Rural businesses predominantly engage in agriculture, forestry, fishing and construction (56%), with urban businesses more widely spread across a variety of sectors.

Tourism and connectivity

- Rural workers (91%) were also much more likely to use their own transport to commute than those from urban areas (76%).
- In 2020, workers from rural areas had an average commute more than double that of urban-based workers, travelling on average more than 600 miles more during the year to get to work.
- Just 17% of all overnight tourism visits to NI were to rural locations. Six of the top ten most visited attractions in NI in 2021 were in rural areas.
- Broadband availability and speeds in rural areas continue to increase rapidly, with full-fibre services available to 65% of rural NI households in 2022 (from 28% in 2021).

Access to services and quality of life

- People living in rural areas are consistently more likely to rate their happiness and life satisfaction as high, and their anxiety levels are low.
- Life expectancy is higher in rural areas (80.7 years for males, 84.1 years for females), but rural dwellers will wait longer for emergency services than their urban counterparts.

Crime

- People from rural areas are less likely to directly experience several crime types than those in urban areas.
- The number of recorded crimes with a racist, sectarian, or homophobic motivation increased in both urban and rural areas in 2020-21, with homophobically-motivated crimes recorded in rural areas doubling.

Poverty, housing and household income

- Similar proportions of urban and rural households are in relative poverty (18% urban, 17% rural) or absolute poverty (14% urban, 13% rural).
- Rural pensioners are more likely to experience relative poverty than their urban counterparts (15% in rural areas, 11% in urban areas).
- Levels of home ownership are higher in rural than in urban areas (81% to 67%), with house prices in rural areas continuing to outstrip those in towns and cities.

Summary of future baseline

11.12 Whilst the long-term implications of the Covid-19 pandemic remain unclear, the changes to work and commuting patterns that came about as a result of the pandemic are yet to disappear completely, which has impacted rural communities in some parts of Fermanagh and Omagh. In this respect, recent growth in demand for rural living and new ways of working in the wake of the pandemic stresses the importance of rural connectivity. These trends, whilst they may bring some benefits for the vitality of some communities, also have the potential to increase disparities between better connected locations (including those that are well connected to services and facilities and the regional employment market), and those that are not well connected.

11.13 In this respect, new technologies could help to deliver services in innovative and sustainable ways to rural communities; boosting physical and virtual connectivity has the potential to support stronger rural economies and public services. This will, however, depend on the extent to which rural connectivity is achieved, both in terms of digital connectivity and physical connectivity.

Key sustainability issues

11.14 The following key issues have been identified through the baseline review for this topic:

- Fermanagh and Omagh is a rural district, and many residents have poor access to services and facilities.
- Whilst the private car enables some residents to access the services and facilities required to meet their needs, those without access to a private car that live in more rural parts of the district may struggle to meet their needs as the district has a relatively poor public transport network.
- Broadband speed and availability, though improving, is still much lower in rural areas when compared to urban areas.
- There are significant economic disparities between well-connected and poorly connected rural areas, which is largely attributed to access to economic opportunities and educational facilities.
- The role of rural areas is changing in light of the Covid-19 pandemic, with more of the working age population now able to work from home.

11.15 **Chapter 12** presents the ISA framework for this topic, incorporating ISA objectives and assessment questions.

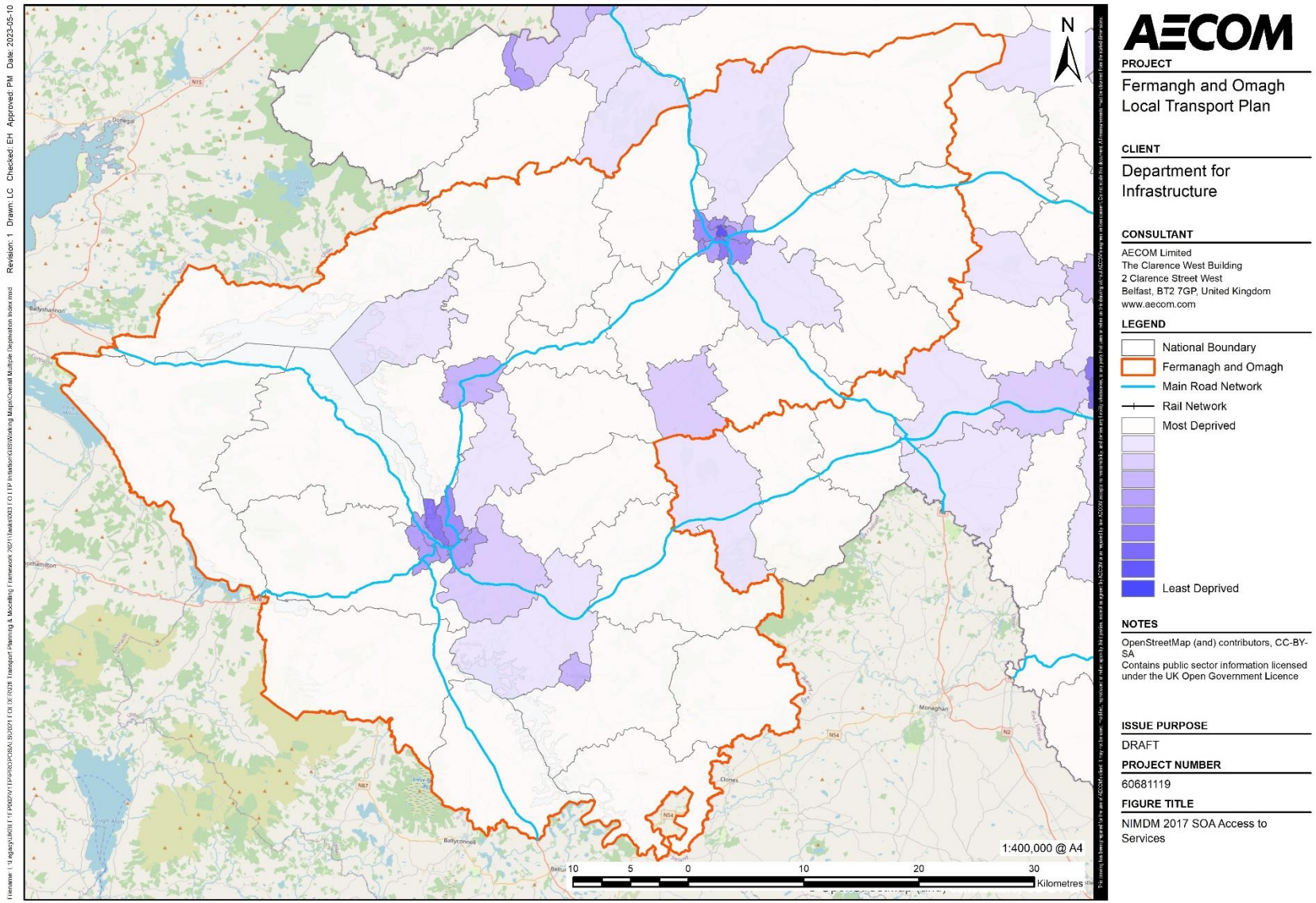

Figure 11.3 NIMDM 2017 access to services domain across Fermanagh and Omagh

12. ISA framework

Proposed ISA framework

12.1 **Table 12.1** below sets out the proposed ISA framework, which will form the methodological structure for assessing the draft FOTP and reasonable alternatives.

12.2 The assessment will take account of the criteria presented within the SEA Regulations. For example, account will be taken of the potential for effect significance to be a factor of the timescale and reversibility of effects. Cumulative effects are also considered, i.e. the potential for the FOTP to impact the baseline in combination with other plans, or unplanned activity.

12.3 Every effort will be made to identify and evaluate effects accurately; however, this is inherently challenging given uncertainty regarding the 'on the ground' implications of policy. The ability to predict effects accurately is also limited by understanding of the baseline and the need to be proportionate to ensure that the findings of the ISA process are clear and accessible.

12.4 The appraisal findings presented in the ISA Report will therefore be presented against each of the ISA topics, rather than against each individual objective or assessment question.

Table 12.1 Proposed ISA framework

ISA topic	Objectives	Assessment questions – will the option/ proposal help to:
Biodiversity	Support the integrity of designated sites.	• Protect the integrity of Ramsar sites, SPAs and SACs within Fermanagh and Omagh? • Avoid negative impacts, and where possible, improve the condition of ASSIs within Fermanagh and Omagh? • Manage pressures on locally designated sites for biodiversity and geodiversity in Fermanagh and Omagh? • Maintain, and where possible, enhance the status of Nature Reserves in Fermanagh and Omagh and people's access to these?
	Protect and enhance habitats and species.	• Protect and enhance semi-natural habitats? • Protect and enhance priority habitats, and the habitat of priority species? • Achieve a net gain in biodiversity? • Support the resilience of Fermanagh and Omagh's biodiversity to the potential effects of climate change? • Reduce the impact of the transport network on species' severance?
	Increase habitat connectivity across the transport network.	• Contribute to the creation of coherent and resilient ecological networks (i.e. allow passage of wildlife across roads and cycle paths through the use of animal bridges/ tunnels, or support green infrastructure enhancements)?
Water and soil resources	Minimise the impact the transport network has on water quality, associated biodiversity, and	• Support improvements to water quality, including through minimising the impacts of diffuse run-off from road surfaces? • Protect surface water and groundwater resources? • Minimise physical alterations to water bodies?

ISA topic	Objectives	Assessment questions – will the option/ proposal help to:
	the physical state of water bodies.	• Minimise impacts to, and where possible enhance, the quality of waterbodies of strategic significance for water supply?
	Promote the efficient use of land.	• Facilitate the use of previously developed land? • Avoid the development of BMV agricultural land (Grade 1 to 3a agricultural land)?
	Promote sustainable waste management solutions that encourage the reduction, re-use and recycling of waste during construction.	• Encourage recycling of materials and minimise consumption of resources during construction, operation and maintenance of new transport infrastructure? • Encourage the use of alternative transport methods for the movement of waste in the district? • Protect the integrity of mineral resources in the district?
Historic environment	Preserve and enhance Fermanagh and Omagh's heritage resource, including its historic environment and archaeological assets.	• Conserve and enhance the significance of buildings and structures of architectural or historic interest, both designated and non-designated, and their setting? • Conserve and enhance the special interest, character and appearance of conservation areas and their settings? • Conserve and enhance archaeological remains and support the undertaking of archaeological investigations, and, where appropriate, recommend mitigation strategies? • Reinforce the distinctive historic landscape character of Fermanagh and Omagh?
	Promote an understanding of Fermanagh and Omagh's heritage resource.	• Support access to, interpretation, and understanding of, the historic environment?
Landscape	Protect and enhance the character and quality of Fermanagh and Omagh's landscapes, townscapes and villagescapes.	• Support the management objectives and special qualities of the Sperrin AONB? • Conserve and enhance locally important landscape, townscape and villagescape features? • Improve accessibility by sustainable transport to the district's landscape resources, including within the AONB?
Air quality and noise	Deliver improvements in air quality in Fermanagh and Omagh.	• Reduce emissions from transport? • Contribute to improvements in air quality? • Promote enhancements to green infrastructure networks to facilitate increased absorption and dissipation of nitrogen dioxide and other pollutants? • Encourage a modal shift to more sustainable modes of transport? • Improve access to active travel networks?
	Reduce noise from transportation sources.	• Contribute to lowering noise levels? • Seek to mitigate the impact on areas affected by noise? • Utilise measures to reduce traffic noise, specifically during transport planning, such as low noise road surfacing?
Climate change	Support climate change mitigation through limiting the	• Limit the carbon footprint of new transport infrastructure?

ISA topic	Objectives	Assessment questions – will the option/ proposal help to:
	contribution of transport to GHG emissions.	• Promote the use of sustainable modes of transport, including walking, cycling and public transport? • Reduce energy consumption from non-renewable resources?
	Support the resilience of the transport network to the potential effects of climate change.	• Increase the resilience of the transport network to the potential effects of climate change? • Reduce embodied carbon associated with transport infrastructure? • Promote a coordinated approach to the management of flood risk associated with transport infrastructure? • Improve and extend green infrastructure networks associated with transport infrastructure to support adaptation to the potential effects of climate change? • Sustainably manage water run-off, reducing surface water runoff? • Ensure the risks associated with climate change are considered through new transport infrastructure? • Reduce the impact of extreme weather events on the condition of the transport network?
Healthy and safe communities	Promote sustainable transport use and reduce the need to travel.	• Encourage modal shift to more sustainable forms of travel? • Support accessibility to key services and facilities?
	Improve the health and wellbeing of Fermanagh and Omagh's residents.	• Reduce the impacts of air and noise pollution on health? • Promote the use of healthier modes of travel? • Enhance the provision of, and access to, green infrastructure? • Avoid any negative impacts on the quality and extent of existing recreational assets, such as formal or informal footpaths? • Improve access to the countryside for recreation?
	Support the vitality of communities.	• Enhance the vitality of Fermanagh and Omagh's town and local centres?
	Improve road safety.	• Improve road safety and reduce road accidents, particularly those resulting in fatalities and severe injuries?
	Enhance community safety.	• Reduce travel times of emergency services? • Reduce community severance?
Rural proofing	Support active travel in rural communities and provide public transport connections to essential services.	• Improve the sustainable transport network in rural areas (i.e. improve active travel and public transport), whilst also recognising that for some in rural areas, the car is still essential for accessibility? • Better enable people with specific needs to access transport to facilitate their day to day activities?
	Provide public transport to centres of employment and higher education.	• Support diversified economic activities in rural areas? • Enhance access to rural employment opportunities?

13. Next steps

Subsequent stages for the ISA process

13.1 Scoping is the current stage in the five-stage plan-making/ ISA process. The next stage will involve appraising 'reasonable alternatives' for a range of FOTP issues and feeding back initial findings so that they might be considered when preparing the draft FOTP. Once the draft plan has been prepared, it will be subjected to ISA, and an ISA Report prepared for consultation alongside it. It is anticipated that this will take place later in 2023.

13.2 In accordance with the SEA Regulations, the ISA Report[38] must contain a range of specified information including:

- An appraisal of the draft FOTP and reasonable alternatives,
- 'Outline reasons for selecting the alternatives dealt with'; including those which relate to health and equality factors; and
- Other information including a summary of the ISA scope and a description of 'measures envisaged for monitoring'.

13.3 The purpose of providing this information in the ISA Report is to inform both:

- Those who might want to make representations on the draft FOTP approach/ alternatives; and
- Those tasked with finalising the FOTP.

13.4 Subsequent to consultation on the draft FOTP/ ISA Report, updates will be made to the plan, and where appropriate, further ISA work will be undertaken.

13.5 At adoption, an ISA Adoption Statement will be prepared. The purpose of the ISA Adoption Statement is to: highlight the reasons for choosing the preferred Plan in light of other reasonable alternatives; how environmental considerations have been integrated into the Plan's development process; how consultation responses have been considered; and to highlight what measures have been taken to monitor the significant environmental effects of the FOTP.

[38] The ISA Report will include the information required to be included in the Environmental Report by the SEA Regulations.

Consultation on the Scoping Report

13.6 Public involvement through consultation is a key element of the ISA process. At the scoping stage, the SEA Regulations require consultation with consultation bodies but not full consultation with the public.

13.7 This Scoping Report will be issued to the relevant consultation body for Northern Ireland, the Department of Agriculture, Environment and Rural Affairs (DAERA), by the DfI. DAERA will integrate comments from the Department for Communities in their consultation response.

13.8 Consultees are invited to comment on the content of this Scoping Report, in particular the evidence base for the ISA, the identified key issues and the proposed ISA Framework.

13.9 Consultation with the public on the ISA Report will subsequently take place alongside the publication of the draft FOTP later in 2023.