North Lanarkshire Local Development Plan 2

Survey Paper - Evidence Report

Topics 3 Biodiversity, 4 Natural Places and 20 Blue and Green Infrastructure

1. Introduction

- 1.1 The Planning (Scotland) Act 2019 requires planning authorities to prepare an Evidence Report that contains sufficient information to enable the authority to prepare a Local Development Plan.
- 1.2 The Evidence Report has two main functions. The first is that it should set out the evidence that will be used to inform and prepare a new Local Development Plan. The second is for local authorities to identify the issues they think based on the evidence presented that need to be addressed by the new Local Development Plan, and for other interested parties and stakeholders to express what they think are the issues.
- 1.3 There are specific matters that the Evidence Report must cover; these are set out in the Planning (Scotland) Act 2019:
 - the principal physical, cultural, economic, social, built heritage and environmental characteristics of the district;
 - the principal purposes for which the land is used;
 - the size, composition, health, and distribution of the population of the district;
 - the housing needs of the population of the area, including, in particular, the needs of persons undertaking further and higher education, older people and disabled people;
 - the availability of land in the district for housing, including for older people and disabled people;
 - the desirability of allocating land for the purposes of resettlement;
 - the health needs of the population of the district and the likely effects of development and use of land on those health needs;
 - the education needs of the population of the district and the likely effects of development and use of land on those education needs;
 - the extent to which there are rural areas within the district in relation to which there has been a substantial decline in population;
 - the capacity of education services in the district;
 - the desirability of maintaining an appropriate number and range of cultural venues and facilities (including in particular, but not limited to, live music venues) in the district;
 - the infrastructure of the district (including communications, transport and drainage systems, systems for the supply of water and energy, and health care and education facilities);
 - how that infrastructure is used; and
 - any change which the planning authority thinks may occur in relation to any of the matters mentioned above.

- 1.4 This survey paper examines the Biodiversity, Natural places and Blue and Green Infrastructure evidence surrounding the Biodiversity, Natural places and Blue and Green Infrastructure topics for the forthcoming North Lanarkshire Local Development Plan 2 (NLLDP2). The paper identifies what evidence and information has been sourced and subjected to an initial assessment as to the relevance of that evidence and information to NLLDP2.
- 1.5 Key points from the evidence and information on this topic are highlighted and potential future relevance is discussed with a view to this informing the approach in progressing the Evidence Report and NLLDP2 more generally.
- 1.6 The final Evidence Report will detail the stakeholder engagement and public survey that has taken place in developing its conclusions and will highlight the agreements and disputes that have arisen through this process.

2. Identification of Relevant Evidence

2.1 The relevant evidence has been identified through an evaluation of the Biodiversity, Natural places and Blue and Green Infrastructure topics and assessment of available information linked to the topic. Where available evidence shared by external stakeholders has been included. Should additional evidence become available we will consider its implications for the Evidence Report.

3. <u>Consideration of Relevant Evidence</u>

3.1 The following is an explanation of evidence sources which have been used in this Survey Paper and are considered potentially relevant for NLLDP2.

Main Evidence considered:

Source: The Plan for North Lanarkshire (2019)

Reason for using the Evidence:

The plan sets out the vision for North Lanarkshire to be a place to Live, Learn, Work, Invest and Visit. NLLDP2 will be a tool to assist in the realisation of this vision. The vision consists of five priorities that are comprised of 25 high level Ambition Statements. These statements amongst other issues cover refocussing town centres, maximising the use of marketable land, and maintaining a clean, safe and attractive environment and specific to this topic look to transform our natural environment to support wellbeing and inward investment and enhance it for current and future generations and ensure we keep our environment clean, safe and attractive.

Links to Evidence: <u>The Plan for North Lanarkshire</u> and <u>North Lanarkshire Council</u> <u>Climate Plan</u>

Source: Tackling the Nature Emergency – Scottish Biodiversity Strategy to 2045

Reason for using the Evidence: Following the consultation on the draft Strategy in 2022, the updated version of the Scottish biodiversity strategy to 2045: Tackling the Nature Emergency in Scotland, which takes into account the responses to that consultation. The strategy sets out a nature positive vision for Scotland – one where biodiversity is regenerating and underpinning a healthy and thriving economy and society and playing a key role in addressing climate change. The Scottish Biodiversity Strategy will sit alongside Scotland's Climate Change Plan and, through developing and driving investment in nature-based solutions, will play a significant role in delivering our commitment to Net Zero.

Links to Evidence: <u>Tackling the Nature Emergency - Scottish biodiversity strategy</u> to 2045 (Scot Gov Sept 2023)

Source: Biodiversity: Draft Planning Guidance (2023)

Reason for using the Evidence: This guidance sets out the Scottish Ministers' expectations for implementing NPF4 policies which support the cross-cutting NPF4 outcome 'improving biodiversity'. This guidance has been prepared with advice provided by CIEEM, the RTPI, Heads of Planning Scotland, the Improvement Service and NatureScot.

Links to Evidence: Biodiversity: Draft Planning Guidance (Scot Gov Nov 2023)

Dataset Name / Source: Developing with Nature guidance (NatureScot 2020)

Reason for the use of the Dataset

(relevance, interlinkages, currency, etc): This Guidance has been prepared to support application of NPF4 policy 3(c). It should be the starting point for applying policy 3(c), but will not cover all circumstances. This is non-statutory guidance and not part of the development plan. However, applicants and Planning Authorities are expected to give this Guidance due consideration through the site selection, design and planning application process. It should be considered alongside the local development plan and any local guidance the Planning Authority may have prepared.

Links to Dataset / Evidence: Developing with Nature guidance | NatureScot

Source: Scotland's Environment Webpage

Reason for using the Evidence: The gateway to everything you want to know about Scotland's environment. This website brings together environmental information and data from trusted sources in one place so that it is easy to search, discover, analyse and interpret.

Links to Evidence: <u>Scotland's Environment Webpage</u>

Source: Biodiversity – Where to find data (NatureScot)

Reason for using the Evidence: Surveying and recording biodiversity can provide valuable information about habitats, plants, animals and natural processes in an area. Information such as the presence (or absence) of species and habitats, the condition of habitats, the size of populations and the type of management in place is useful when planning projects that include or may affect biodiversity. By recording this information, you can establish a baseline against which the progress and success of a plan or project can be monitored.

Links to Evidence: Biodiversity Data and Links (NatureScot)

Source: State of Nature (2023)

Reason for using the Evidence: The report presents an objective assessment of the state of nature in the UK. The metrics show how species status has changed

over time and the variation in trends among species. The report focuses on measuring change over two periods: the medium term, up to 50 years; and short-term trends, the last 10 years.

Links to Evidence: <u>State of Nature Report 2023</u>

Source: NBN Atlas Webpage

Reason for using the Evidence: The NBN Atlas is an online tool that provides a platform to engage, educate and inform people about the natural world. It will help improve biodiversity knowledge, open up research possibilities and change the way environmental management is carried out in the UK. The NBN Atlas is innovative because the combination of the multiple sources of information about UK species and habitats, and the ability to interrogate, combine, and analyse these data – in a single location – has not been done before, on this scale. It aims to facilitate learning about and understanding the UK's wildlife.

Links to Evidence: North Lanarkshire | NBN Atlas

Source: Scotland's Environment – Habitat Map of Scotland

Reason for using the Evidence: The Habitat Map of Scotland (HabMoS) is the national repository for habitat and land use data. The map adopts internationally recognised data and habitat classification standards.

Links to Evidence: <u>Habitat Map of Scotland</u>

Source: North Lanarkshire Biodiversity Action Plan 2023-2027

Reason for using the Evidence: Objectives of the North Lanarkshire Biodiversity Action Plan:

To maintain and enhance:

- The populations and natural ranges of native species and the quality and range of wildlife habitats and ecosystems.
- Internationally and nationally important and threatened species, habitats and ecosystems.
- Species, habitats and managed ecosystems that are characteristic of North Lanarkshire or are of local importance.
- The biodiversity of natural and semi-natural habitats where this has diminished over the recent decades.
- To increase community awareness of, and involvement in, conserving biodiversity.
- To work with the development industry to identify opportunities for biodiversity enhancement within development proposals.
- To identify priorities for habitat and species conservation in North Lanarkshire and set realistic targets and timescales for these.

Links to Evidence: North Lanarkshire Biodiversity Action Plan 2023-2027

Source: A Draft Framework for Nature Networks in Scotland (NatureScot September 2023)

Reason for using the Evidence: This framework aims to catalyse the urgent and transformative action needed across Scotland to implement Nature Networks that

help halt and reverse biodiversity loss. It promotes the basic principles which associated action and delivery, at all levels, should be founded upon. Developed using co-design, this framework is built from the expertise and time given by over 200 individuals from nearly 110 organisations from a broad spectrum of Scotland's sectors and communities. This highlighted the issues and challenges faced, and then the common guiding principles needed to ensure Nature Networks overcome these, are successful, equitable, and deliver for a nature-rich future

Links to Evidence: Framework for Nature Networks in Scotland - Draft

Source: NatureScot

Reason for using the Evidence: This guidance aims to help planning authorities apply the requirements of NPF4 for Nature Networks into Local Development Plans (LDPs).

Links to Evidence: Planning authorities and Nature Networks | NatureScot

Source: NatureScot

Reason for using the Evidence: Scotland's register of European sites under Regulation 11 of the Conservation (Natural Habitats, &c.) Regulations 1994. SiteLink provides access to data and information on key protected areas across Scotland. You can view site boundaries, designated features and download supporting documents. There is also data on site management agreements and consultation cases along with links to other websites for supporting information.

Links to Evidence: <u>SiteLink Home - NatureScot</u>

Source: River Basin Management Plan for Scotland 2021-2027

Reason for using the Evidence: The river basin management plan (RBMP) sets out a framework for protecting and improving the benefits provided by the water environment across Scotland. The RBMP builds on previous RBMPs published in 2009 and 2015, setting revised objectives for the period from 2021 to the end of 2027 and providing a programme of actions for achieving the objectives.

Links to Evidence: River Basin Management Plan for Scotland 2021-2027

Source: NatureScot

Reason for using the Evidence: Source Mapping.

Links to Evidence: <u>Sites of Special Scientific Interest | Sites of Special Scientific</u> Interest | NatureScot Spatial Data Hub

Source: Scottish Government

Reason for using the Evidence: Source Mapping.

Links to Evidence: <u>SpatialData.gov.scot</u>

Source: NatureScot

Reason for using the Evidence: Source Mapping

Links to Evidence: <u>Scotland Land Cover Map 2022 - EUNIS Level 1 | NatureScot</u> <u>Spatial Data Hub</u>

Scotland Land Cover Map 2022 - EUNIS Level 2 | NatureScot Spatial Data Hub

Scotland Land Cover Map - Change 2020-2022 | NatureScot Spatial Data Hub

Source: SEPA

Reason for using the Evidence: Source Mapping.

Links to Evidence: <u>Water Classification Hub (sepa.org.uk)</u>

Flood maps | Beta | SEPA | Scottish Environment Protection Agency

Environmental data | Scottish Environment Protection Agency (SEPA)

Map | Scotland's Wetland Inventory (SEPA)

Source: NatureScot

Reason for using the Evidence: Source Mapping.

Links to Evidence: Landscape variety in Scotland | NatureScot

Scottish Landscape Character Types Map and Descriptions | NatureScot

Source: NLLDP Modified Proposed Plan – Local Landscape Character Assessment Background Report (November 2018)

Reason for using the Evidence: This report initially sets out the broad context of landscape character assessment, followed by an overview of the methodology employed, a description of each of the identified Local Landscape Units, and concludes by identifying those areas that would warrant specific landscape protection.

Links to Evidence: <u>NLLDP Local Landscape Character Assessment - Background</u> <u>Report 2018</u>

Source: NLLDP Modified Proposed Plan – Statement of Landscape Importance for the Kilsyth Hills Special Landscape Area Background Report (November 2018)

Reason for using the Evidence: This Statement of Importance explains why the Kilsyth Hills have been proposed for designation as a Special Landscape Area (SLA). The Statement provides a framework linked to policies in the North Lanarkshire Local Development Plan Modified Proposed Plan Policy Document for protecting and enhancing the distinctive landscape character qualities and for managing change by development within proposed SLA designated areas.

Links to Evidence: <u>NLLDP Statement of Landscape Importance for the Kilsyth Hills</u> <u>Special Landscape Area Background Report 2018</u>

Source: North Lanarkshire Council Biodiversity Duty Report 2021 - 2023

Reason for using the Evidence: The Wildlife and Natural Environment (Scotland) Act 2011 amended the Nature Conservation (Scotland) Act 2004 and introduced a requirement for all Public Authorities to produce and make available a report, every three years, detailing their compliance with the biodiversity duty.

Links to Evidence: NLC Biodiversity Duty Report 2021 - 2023

Source: NLC – Core Path Network

Reason for using the Evidence: Source Mapping

Links to Evidence: <u>NLC core path network (arcgis.com)</u>

Source: Green Infrastructure Design and Placemaking

Reason for using the Evidence: The content of the document builds on Designing Places and Designing Streets to give practical tips on incorporating green infrastructure in masterplans. It is split into two parts:

• Part 1 explains what green infrastructure is, who should be involved, when to think about it, and highlights the many advantages of taking an integrated approach to green infrastructure in designs.

• Part 2 focuses on masterplanning, in particular by showing how green infrastructure can contribute to each of the six qualities of successful places that have been identified throughout the Scottish Government's design policy

Links to Evidence: Green Infrastructure : Design and Placemaking (2011)

Source: Maximising the benefits of green infrastructure in social housing - NatureScot Research Report 1046

Reason for using the Evidence: The main objective of the project is to explore opportunities to deliver multiple benefits through the good design and maintenance of GI associated with new and existing social housing in Scotland. The focus is on GI within the footprint of social housing; however, the study also considers the role of adjacent GI and green spaces likely to be regularly used by tenants.

Links to Evidence: <u>SNH Research Report 1046</u>: <u>Maximising the benefits of green</u> infrastructure in social housing (nature.scot)

Source: ClimateXChange

Reason for using the Evidence: Understand the effects of climate change and their impacts on building and infrastructure networks. Provide the knowledge, skills and tools to manage climate change impacts on buildings and infrastructure.

Links to Evidence: Indicators and trends: Extreme weather and infrastructure | ClimateXChange

Source: The Scottish SUDS Database 2002

Reason for using the Evidence: The purpose of this report is to give an overview of the number of SUDS and sites in Scotland, their nature and their geographical distribution.

Links to Evidence: <u>SUDS database 16/01/02 (sniffer.org.uk)</u>

Source: The SuDS Manual (C753) 2015 - Construction Industry Research & Information Association (CIRIA)

Reason for using the Evidence: Guidance and design manual for sustainable urban drainage systems in force

Links to Evidence: <u>SuDS Manual (susdrain.org)</u>

Source: Water Assessment and Drainage Assessment Guide

Reason for using the Evidence: This document primarily aims to assist the applicant with advice on the procedures for a range of water and drainage matters that require assessment to gain the relevant permissions to proceed with any development. It also provides support to local authority planners particularly in relation to Development Planning. It is important to understand the process and complete forms properly as this will expedite the application. This guidance helps with this understanding, for example, timings and response periods, and what each relevant authority will be expecting.

Links to Evidence: Water drainage assessment guide (sepa.org.uk)

Source: Natural Flood Management Handbook

Reason for using the Evidence: The purpose of this handbook is to provide a practical guide to the delivery of natural flood management to benefit flooding, while also bringing about many other outcomes. It is informed by a number of demonstration projects and studies commissioned by SEPA and partners in recent years that have highlighted some of the requirements for the effective delivery of natural flood management.

Links to Evidence: sepa-natural-flood-management-handbook1.pdf

Source: Water-Resilient Places: A Policy Framework for Surface Water Management and Blue Green Infrastructure (Scot Gov Feb 2021)

Reason for using the Evidence: This paper outlines how surface water is currently managed in Scotland, sets out a vision for the future and describes the components that should be brought together to form a coherent framework that will support delivery of water resilient places.

Links to Evidence: <u>Water-Resilient Places: A Policy Framework for Surface Water</u> Management and Blue-Green Infrastructure

Source: Greenspace Scotland

Reason for using the Evidence: In 2011, greenspace scotland published the world's first national greenspace map. Working with Ordnance Survey (OS) this has been updated and extended so that it now covers greenspace in Scotland, England and Wales. This free interactive digital map can be used to find accessible recreational and leisure greenspace anywhere in Britain – parks, public gardens, playing fields, sports areas, play spaces, allotments and community gardens.

Links to Evidence: Greenspace map | Greenspace Scotland

4. <u>Assessment of Evidence</u>

Scottish Biodiversity Strategy to 2045

4.1 The Scottish Biodiversity Strategy set out clear targets to halt biodiversity loss by 2030 and to be nature positive and by 2045 to have restored and regenerated biodiversity across the country. This Vision encapsulates three core ideas: that urgent action is needed at scale across our land and seascapes; that we are looking to the future – regenerating biodiversity and building resilience to climate change; and that people and communities are central to a nature positive future. It is envisaged that regenerated biodiversity will drive a sustainable economy and support thriving communities and people will play their part in the stewardship of nature for future generations.

National Planning Framework 4 (NPF4) 2023

- 4.2 Policy 3 Biodiversity seeks to protect biodiversity, reverse biodiversity loss, deliver positive effects from development and strengthen nature networks by ensuring that biodiversity is enhanced and better connected including through strengthened nature networks and nature-based solutions. Policy 4 Natural Places seeks to protect restore and enhance natural based assets making best use of nature-based solutions by ensuring that natural places are protected and restored and natural places are managed in a sustainable way that maintains and grows their essential benefits.
- 4.3 NPF4 outlines that LDP's should protect, conserve, restore and enhance biodiversity in line with the mitigation hierarchy. They should also promote nature recovery and nature restoration across the development plan area, including by facilitating the creation of nature networks and strengthening connections between them to support improved ecological connectivity; restoring degraded habitats or creating new habitats; and incorporating measures to increase biodiversity, including populations of priority species. It is clear that both policies 3 and 4 are inextricably linked in terms of their requirements for both protection and enhancement of biodiversity and the natural places that sustain it.
- 4.4 NPF Policy 20 seeks to protect and enhance blue and green infrastructure and their networks by ensuring that blue and green infrastructure are an integral part of early design and development processes; are designed to deliver multiple functions including climate mitigation, nature restoration, biodiversity enhancement, flood prevention and water management. In addition communities should also benefit from accessible, high quality blue, green and civic spaces.
- 4.5 NPF4 outlines that LDPs should be informed by relevant, up-to date audits and/or strategies, covering the multiple functions and benefits of blue and green infrastructure. The spatial strategy should identify and protect blue and green infrastructure assets and networks; enhance and expand existing provision including new blue and/or green infrastructure. This may include retrofitting. Priorities for connectivity to other blue and/or green infrastructure assets, including to address cross-boundary needs and opportunities, should also be identified. LDPs should encourage the permanent or temporary use of unused or under-used land as green infrastructure. Where this is temporary, this should not prevent future development potential from being realised. LDPs should safeguard access rights and core paths, including active travel routes, and encourage new and enhanced opportunities for access linked to wider networks.

Designated Sites – International, National, Regional and Local Importance for Nature

- 4.6 Designated sites (protected areas) are identified to protect natural features of interest and species of importance or groups of species of conservation importance. International directives and treaties, domestic legislation and policy, or local needs and interests may call for the designation of sites. All designated sites are required to meet certain criteria set at an international, national, or local level. The draft Scottish Biodiversity Strategy states that there is now an indisputable body of evidence that biodiversity, both globally and in Scotland, is in real decline, and sets out a clear ambition for Scotland to be Nature Positive by 2030, and to have restored and regenerated biodiversity across the country by 2045.
- 4.7 Approximately 18.2% of Scotland's land surface is protected for nature either as SSSIs, SAC, SPA or Ramsar sites. North Lanarkshire has a variety of habitats (primarily urban, grassland, woodland and blanket bogs), with a number of designations designed to protect key species and habitats, covering a total of 16.8% (7,900 ha) of the surface area. North Lanarkshire contains the following designated sites:

- 3 country parks: 2.0% land coverage. Country parks are managed to benefit wildlife and support nature conservation.
- 1 Special Protection Area (SPA): 3.8% land coverage. SPAs protect birds and their surrounding habitats; which are classified under the 1992 EC Wild Birds Directive
- 14 Sites of Special Scientific Interest (SSSI): 2.1% land coverage, of which 12 are designated for their biological attributes. SSSIs is a formal conservation designation aimed to conserve key biological or geographical features.
- 4 Special Areas of Conservation (SAC): 0.4% land coverage. Special Areas of Conservation are designated as high-quality areas that contribute towards the habitats and species identified in Annexes I and II of the European Habitats Directive.
- 6 Scottish Wildlife Trust reserves: 0.7% land coverage/2 Royal Society for the Protection of Birds (RSPB) reserves: 0.4% coverage. A variety of reserves managed by these NGOs for the benefit of both humans and wildlife.
- 10 Local Nature Reserves (LNR): 1.0% land coverage. Local nature reserves are areas of at least locally important natural heritage, designated and managed by local authorities to give people better opportunities to learn about and enjoy nature close to where they live.
- 410 Sites of Importance to Nature Conservation (SINC): 16.1% land coverage. Local designation covering sites that have a local or biodiversity value or notable biodiversity features.

The designated sites are shown in figure 1 below.

4.8 European sites - including Special Areas of Conservation SAC's and Special Protection Areas (SPA's) - were originally designated under the EU Habitats and Birds Directives. They continue to be protected under domestic law as European sites and are internationally important for threatened habitats and species.

Figure 1. North Lanarkshire Designated Sites



Source: North Lanarkshire State of the Environment Report 2024 (Draft)

- 4.9 Sites of Special Scientific Interest (SSSIs) are those areas of land and water that are considered to best represent natural heritage in terms of their flora, fauna, geology, geomorphology, or a mixture of these natural features. Many SSSIs are also designated as European sites. SSSI is a statutory designation made by NatureScot under the Nature Conservation (Scotland) Act 2004. Sites are selected following evaluation against the Joint Nature Conservation Committee criteria. There are separate criteria for the selection of biological and geological sites. For earth science (geological and geomorphological) features, their location within SSSIs is determined by the location of Geological Conservation Review (GCR) sites.
- 4.10 There has been an increasing drive to increase protection for sites, most notably, seven of the current 14 SSSIs are designated as cSPA (candidate Special Protection Areas) due to their importance as raised bogs. Major pressures include development of urban areas with continued demand for new housing, jobs and infrastructure that puts pressure on key habitats and species within designated sites. Although development may not occur directly on sites, pressures can occur from diffuse pollution and habitat fragmentation. In addition, intensification of agriculture, pollution/waste and invasive species have an impact on key species and habitats, with a number of initiatives outlined in order to combat species decline and provide enhancement for biodiversity across the council area.
- 4.11 Sites identified as being of regional or local importance for nature conservation can be identified as Local Nature Reserves (LNR). These can be identified by Local Authorities and other organisations such as RSPB, SWT or the Woodland Trust. There can be considerable overlap between these and other designations such as SSSI, where the local designation provides protection to biodiversity not explicitly addressed by the National designation. Local Nature Reserves (LNRs) are areas of natural heritage that are at least locally important. They are selected and designated by local authorities under Section 21 of the National Parks and Access to the Countryside Act 1949 (as amended). To be designated as an LNR, land must be owned or leased by the local authority, or the owner(s) must formally agree to the designation.
- 4.12 One of the key priorities identified by the Scottish Government in the Scottish Biodiversity Strategy is to expand protected areas to at least 30% of the land cover of Scotland. Further details on this are included in the draft 30x30 Framework, but further discussion is needed on the criteria used to identify which areas of land will contribute to 30x30, and there is no indication that Local Authorities will be involved in identifying sites to contribute to this target. It is clear however that connectivity between sites will be a key priority going forward and a significant consideration for NLLDP2 going forward.

Landscape Designations

- 4.13 There are no national landscape designations within North Lanarkshire however, there are two local landscape designations, identified as Special Landscape Areas (identified within the North Lanarkshire Local Development Plan 2022):
 - Kilsyth Hills SLA (equivalent to the Kilsyth Hills LLU, in the Rugged Moorland Hills LCT)
 - Clyde Valley SLA (equivalent to the Clyde River Valley LLU, in the Broad Valley Lowland LCT)

These areas are designated in the NLLDP, having previously been classified as a Regional Scenic Area and Area of Great Landscape Value, respectively and the boundaries are slightly amended from those original designations. Policy PROT A POLICY Natural Environment and Green Network Assets in the currently adopted

NLLDP 2022 focuses on protecting environmental assets and environmental designations.

Woodland Cover

4.14 In total, 23% (10,720 ha) of North Lanarkshire is denoted on the Native Woodland Survey of Scotland (NWSS) register. This is largely evenly distributed, with concentration in the southwest. The top three dominant habitats on this register are lowland mixed deciduous woodland (6,000 ha), wet woodland (2,800 ha) and upland birchwood (900 ha). In addition, 3% (1,500 ha) of the woodland of North Lanarkshire is recorded on the Ancient Woodland Inventory (AWI), of which 960 ha is Long Established of Plantation Origin (LEPO), 550 ha is Ancient of Semi-Natural Origin (ASNO) and the remainder is other. North Lanarkshire has undertaken management and enhancement works at 20 woodland sites. Ash dieback is predicted to continue to cause significant losses of ash trees. There are long term woodland creation projects in response to the Climate Emergency, where 40,000 trees will be planted.

Green Networks

4.15 Green networks refer to the connected areas of green infrastructure and open space which together form an integrated and multi-functional habitat network. Green networks help define the landscape, providing links with the countryside and allowing the movement of people and wildlife, creating opportunities for physical activity and access to the outdoors. Green infrastructure can deliver multiple environmental benefits, whilst playing a key role in mitigating against climate change. Developing and strengthening green infrastructure will underpin ecosystem services and contribute to healthy and resilient ecosystems. Green network assets encompass international, national and local landscape designations as well as urban green spaces and are covered by PROT A POLICY Natural Environment and Green Network Assets in the current NLLDP 2022. Urban green network including natural areas (including urban wildlife corridors, trees & woodlands, watercourses & wetlands and flood plains), outdoor sports facilities and other green open spaces contributing to guality of life in local communities. is shown in Figure 2 below. Green Network improvement opportunities are promoted under NLLDP Policy PROM LOC4 POLICY Special Landscape Areas and Green Network Improvements.



Source: North Lanarkshire State of the Environment Report 2024 (Draft)

Land Cover

- 4.16 Landcover has been periodically mapped in Scotland by Space Intelligence and divided according to their EUNIS habitat classification. Landcover in North Lanarkshire as of 2022 (in order of area) is as follows:
 - J: Built-up (21.8%) 10295 ha
 - E2: Mesic grassland (20.7%) 9755 ha
 - G1: Broadleaved deciduous woodland (18.1%) 8541 ha
 - E3: Seasonally wet and wet grasslands (13.1%) 6164 ha
 - D1: Raised and blanket bogs (7.5%) 3565 ha
 - G3.F: Highly artificial coniferous plantations (5.4%) 2548 ha
 - F4: Temperate shrub heathland (2.7%) 1270 ha
 - G5: Lines of trees, small anthropogenic woodlands, early-stage woodland and coppice (1.9%) 880 ha
 - I1: Arable land and market gardens (1.7%) 789 ha
 - C: Surface standing and running waters (1.6%) 766 ha
 - O: Bare field (1.4%) 681 ha
 - E1: Dry grasslands (1.4%) 668 ha
 - G4: Mixed deciduous and coniferous woodland (0.9%) 431 ha
 - F3: Temperate and mediterranean-montane scrub (0.6%) 266 ha
 - D2: Valley mires, poor fens and transition mires (0.5%) 259 ha
 - OW: Windthrow (0.3%) 159 ha
 - E5: Woodland fringes and clearings and tall forb stands (0.2%) 105 ha
 - F9: Riverine and fen scrubs (0.1%) 61 ha
 - H3: Inland cliffs, rock pavements and outcrops (0%) 19 ha

These landcover types are mapped in Figure 3 below.

- 4.17 Land cover changes were mapped between 2020 and 2022 (Figure 4). Major drivers in North Lanarkshire include:
 - Other changes (12%) 5674 ha
 - Urban development (8.1%) 3826 ha
 - Forest growth (5.3%) 2492 ha
 - Agriculture related (4.7%) 2222 ha
 - Tree removal (3.7%) 1748 ha
 - Afforestation (1.1%) 502 ha
 - Water gain (0.2%) 109 ha
 - Water loss (0.1%) 33 ha

The landcover changes are mapped in Figure 4 below.

Figure 3 Landcover Types



Source: North Lanarkshire State of the Environment Report 2024 (Draft)

Figure 3 Landcover Changes 2020 - 2022



Source: North Lanarkshire State of the Environment Report 2024 (Draft)

Water Quality

- 4.18 The last assessment of water quality for water/bodies rivers by SEPA was in 2014, where:
 - 2 waterbodies were rated 'bad'
 - 1 waterbody was rated 'poor'
 - 25 waterbodies were rated 'moderate'
 - 6 waterbodies were rated 'good'
 - 7 waterbodies were rated 'high'

The classification process is complex and takes account of physical condition, access for fish migration, invasive species, water quality and water flows/levels. SEPA list actions to address the known causes of poor water quality and set targets for improvement where these are considered feasible. Figure 4 shows the count of surface waters expected at each condition for water quality in North Lanarkshire.



Figure 4. Count of surface waters expected at each condition for water quality in North Lanarkshire

Blue = high, green = good, yellow = moderate, orange = poor, red = bad

Source: North Lanarkshire State of the Environment Report 2024 (Draft)

Priority Habitats

- 4.19 The following are identified in the Local Biodiversity Action Plan (LBAP) as priority habitats, with each having their own Habitat Action Plan examining the conditions, previous and current action to restore and improve these habitats.
 - Bogs: Bogs in North Lanarkshire are primarily raised/lowland bog, which covers 187ha, or 7% of total cover in Scotland. The Peatland Habitat Action Plan aims to restore and improve peatland habitats for the purpose of carbon sequestration and improve habitats for bog-dependent species. Pressures include peat extraction, forestry, built development, agricultural intensification, dereliction, pollution and windfarm development. Despite becoming designated such as SINC and SSSI, most peat bog areas in North Lanarkshire have been historically damaged and degraded as a result of above pressures and do not sequester carbon effectively. Recent incentives have been aimed at restoring lowland bog (such as the WREN project and PEATLAND Action), as well as action from volunteer schemes such as the Butterfly Conservation Bog Squad to install dams and remove scrub.
 - **Farmland:** There are over 300 farms in North Lanarkshire which support a diverse range of habitats and wildlife. The protection and safeguarding diverse farmland and associated habitats have been identified. Biodiversity on farmland is threatened from the intensification of agricultural practices, and loss of farmland to urban and utility development. Biodiversity continues to decline due to changing management practices. There have been long term declines in farmland birds such as tree sparrow, corn bunting and greenfinch.
 - Floodplain and grazing marsh: Periodically flooded pasture and meadows. In North Lanarkshire this habitat is found predominantly in the Kelvin Valley. This habitat can be important for breeding birds such as waders and waterfowl. The remnants that have not been historically drained or constructed on is in poor conditions due to a lack of or inappropriate management. Inappropriate management includes physical destruction, poor water quality of tributary streams, afforestation and neglect. Much of this habitat was adversely affected by draining and water control schemes in the Industrial Revolution. Currently, physical habitat destruction is regulated by SEPA. Significant habitat improvements have taken place at various designated sites, and the Baron's Haugh RSPB reserve.
 - **Hedgerows:** A vital countryside habitat providing shelter as well as habitat connectivity for animals such as bats and hedgehogs. More work is required to assess their extent and condition within North Lanarkshire. Small schemes such as hedgerow enhancement at Gartcosh LNR are underway. Protection and enhancement of hedgerows is now a requirement for new developments in the planning process.
 - **Ponds:** Seasonal/permanent water bodies <2 ha in surface area. These are valuable habitats at the local level and provide habitat for Priority species such as otter, great-crested newt and water vole. Gartcosh LNR contains one of the largest populations of great-crested newts in Scotland. Primary pressures include drainage and eutrophication from intensifying agriculture, invasive species and development/infilling of ponds. As noted above after a decline in ponds in the 20th century, there has been an increase across Scotland between 1998 and 2007. Recently, the encouragement of the construction of SUDS ponds has been

encouraged for development, and new ponds have been created by the Greenspace Development Team.

- **Rivers and burns:** The most unmodified habitat in North Lanarkshire, of which there are approximately 89 rivers, in addition to two main canals and 35 lochs/reservoirs. Major pressures include groundwater pollution through agriculture and industry, creation of manmade barriers and colonisation by invasive species. Water quality has improved by 3% between 2015 and 2020, with 64% of rivers and lochs in at least good condition. Re-naturalisation projects have also been undertaken aiming to create and enhance wetland habitats, as well as facilitate migratory fish movements.
- Urban landscapes: Greenspace within urban areas is beneficial to connect people with nature, and a variety of micro-habitats within urban areas create opportunities for vulnerable priority species including bat and swift. Constant development and redevelopment, changing the ecological structures of urban spaces can be a threat to priority species such as bats, especially when development does not take biodiversity into account in their design.
- **Woodlands:** In North Lanarkshire woodlands are generally small, linear sites, typically in river gorges and steep slopes with less human intervention. The council owns most of the non-coniferous woodland within the local authority area. Only a small percentage of woodlands are formally protected. As noted in paragraph 4.9 above North Lanarkshire has undertaken management and enhancement works at 20 woodland sites, however Ash dieback is predicted to continue to cause significant losses of ash trees. Within North Lanarkshire there are long term woodland creation projects in response to the Climate Emergency, where 40,000 trees will be planted.

Priority Species

4.20 In the previous year, North Lanarkshire introduced the latest version of their Local Biodiversity Action Plan (LBAP) – spanning 2023 to 2027, highlighting priority species and habitats. The priority species listed in the report are follows:

Invertebrates:

- Small pearl-bordered fritillary Boloria selene
- Pollinator species including bees and wasps

Development and habitat loss has reduced or eliminated suitable breeding sites. There is also difficulty in facilitating adequate habitat management and minimising development impacts due to varying land use/land ownership. Sites that previously returned good populations of small pearl-bordered fritillary have experienced overall decline. Attempts have been made recently to increase numbers with the Woodland Grant Scheme and the development planning process.

Birds:

- Barn owl Tyto alba
- Kestrel Falco tinnunculus
- Redshank Tringa tetanus
- Lapwing Vanellus vanellus
- Snipe Gallinago gallinago

- Curlew Numenius Arquata
- Tagia bean goose Answer fabalis
- Swift Apus apus

Pressures include a decline of nesting sites for kestrel and barn owl and swift, reduction of prey and habitat loss due to changes in farming practices. Climate change also creates a pressure on bird populations. For taiga bean geese, pressures include reduction in areas of suitable habitat, visitor pressure and wind farm developments. Overall current barn owl population is low, with many nest boxes installed in recent years to counter the limited nesting space available. Kestrel territories appear to have been increasing in recent years, with more monitoring required. Wader species have seen significant decline in North Lanarkshire due to changes in farming practices and drainage of wetland areas. The number of taiga bean geese have been steadily declining since the late 20th century.

Mammals:

- Otter Lutra lutra
- Water vole Arvicola terrestris
- Pine marten Martes martes
- All bat species of which eight reside in North Lanarkshire including common pipistrelle Pipistrellus pipistrellus, soprano pipistrelle Pipistrellus pygaemus and brown long-eared Plecotus auritus.

Otters are under pressure from development, with populations are impacted by road fatalities and disturbance from people exercising dogs and using waterways for recreation. Water voles have similar pressures but are also at risk of being poisoned when misidentified as brown rat, in addition to predation by cats, dogs and non-native American mink. Pine marten populations are pressured by habitat fragmentation and loss, as well as threats of illegal persecution and accidental trapping. Bats are adversely impacted by development such as building alteration, leading to a loss of roost and hibernation sites. Otters have seen populations have been recovering due to pollution and habitat loss, however populations have been recovering due to banning of certain hydrocarbon pesticides. Water vole populations have experienced a decline, but further studies are required in North Lanarkshire to assess the nature and extent of decline. Pine marten have risen in number since records began in 2014, although further monitoring is suggested. Bat species have seen significant declines in recent years, due to development pressures.

Amphibians:

• Great crested newt Triturus crisatus

Great crested newts are impacted by loss of habitats for foraging, dispersal and hibernation, as well as being vulnerable to indirect disturbance such as felling and planting, as well as pollution. Great crested newt populations at Gartosh have seen a slight increase since monitoring began in 2008, however the population at the former Ravenscraig steel works has assumed to have died out.

Plants:

• Bluebell Hyacinthoides non-scripta

Habitat loss and fragmentation affects bluebell numbers. Competition and hybridisation from Spanish bluebell Hyacynthoides hispanica also threaten populations. Recent

initiatives have been planned to link up isolated populations of bluebells and establish new colonies in appropriate woodland areas.

Landscape Character

- 4.21 North Lanarkshire has a diverse landscape ranging from scenic hills, through farmland and river valleys to an extensive area of urban development. This is reflected in its landscape character assessment and by landscape designations in two areas of highest scenic quality. Landscape and visual amenity is enhanced by other related designations including cultural and natural heritage sites. Recent developments in renewables, urban expansion and mineral extraction have influenced landscape character and visual amenity. Wind energy has been the most pervasive, with more sites developed and a trend to larger turbines particularly in upland and upland fringe areas. Pressure will continue in all these areas of development, leading to widespread landscape change. However, current LDP policies seek to protect the key areas of highest landscape and visual amenity including the Kilsyth Hills, Clyde valley and Forth & Clyde Canal.
- 4.22 Broadly speaking the landscape is divided between sparsely populated upland areas in the north and east and densely settled lowland areas and river valleys in the west. National and local landscape assessments describe landscape character in broad and detailed terms. In a national context, the area is overlapped mainly by 3 of the 79 Landscapes of Scotland areas; representing the two main upland areas to the north and east and the populated area fringing the Glasgow conurbation to the west. More detail is provided in the NatureScot national assessment where 10 Landscape Character Types (LCTs) overlap the North Lanarkshire Area.
- 4.23 The North Lanarkshire Local Development Plan (NLLDP) 2022 includes a local landscape character assessment, broadly similar to the NatureScot national assessment. There are 10 North Lanarkshire LCTs ranging from uplands to farmlands and incised river valleys as well as the urban area (% of NLC area shown):

1.	Rugged Moorland Hills	7.6%
2.	Broad Valley Lowlands	5.3%
3.	Incised Valleys	1.2%
4.	Rolling Farmlands	3.9%
5.	Fragmented Farmlands	5.4%
6.	Plateau Farmlands	21.6%
7.	Plateau Moorlands	30.4%
8.	<u>Urban Greenspace</u>	3.7%
9.	Ravenscraig	0.7%
10.	Urban	20.2%

Landscape Designations

- 4.24 There are no national landscape designations. However, there are two local landscape designations, identified as Special Landscape Areas (see NLLDP 2022):
 - Kilsyth Hills SLA (equivalent to the Kilsyth Hills LLU, in the Rugged Moorland Hills LCT)
 - Clyde Valley SLA (equivalent to the Clyde River Valley LLU, in the Broad Valley Lowland LCT)

These areas are designated in the NLLDP 2022, having previously been classified as a Regional Scenic Area and Area of Great Landscape Value, respectively. Boundaries are slightly amended from those previous designations.

Nature Networks

4.25 NPF4 sets an expectation that every council area will create Nature Networks. The primary purpose of a Nature Network is ecological connectivity, working at the local, national and regional scale, to improve connectivity and contribute towards fully functioning and healthy ecosystem and increasing nature's climate-resilience. To be successful nature networks must connect across local authority boundaries. During the period 2021 - 2023 North Lanarkshire Council were involved in landscape scale projects.

Seven Lochs Wetland Park

- 4.26 The Seven Lochs Wetland Park is Scotland's largest urban heritage and nature park spanning the Glasgow city and North Lanarkshire Council boundary between Easterhouse, Coatbridge and Stepps. From 2016 to 2023 the Seven Lochs Partnership has delivered a £7M programme of park development and management with support from project partners, National Lottery Heritage Fund, and a range of other funders. This programme has supported delivery of local and national biodiversity priorities, including:
 - Restoration and conservation management of 4 peatland sites
 - Development of a Conservation Action Plan for the nationally significant water vole population in the project area
 - Creation of new species-rich grassland habitats
 - Removal and treatment of invasive non-native species 3
 - Four new or enhanced visitor centres as hubs for heritage / nature learning and engagement.

Linked to these species and habitat works the project has delivered over 200 conservation projects with volunteers delivering 1400 workdays at 33 parks, local nature reserves and other greenspaces. There has also been work undertaken with primary, secondary and additional support needs schools and local community groups to deliver 550 outdoor learning, citizen science and public engagement activities to almost 4000 people. The Seven Lochs project partners – Glasgow and North Lanarkshire Councils, The Conservation Volunteers Scotland, Glenboig Development Trust, Provan Hall Trust, and Royal and Ancient Golf and Leisure Services – have now signed a new 20-year collaboration agreement to continue to develop and manage the Seven Lochs Wetland Park and green network to protect and enhance biodiversity and connect people to the nature on their doorstep.

Cumbernauld Living Landscape (CLL)

4.27 Cumbernauld Living Landscape is a partnership project led by the Scottish Wildlife Trust, North Lanarkshire Council and Forestry Commission Scotland. Initial support from the Heritage Lottery Fund was secured to develop the Creating Natural Connections a four-year project which ran from 2019 until 2023. This initiative aimed to make the town's woods, parks and open spaces better for wildlife and people with the support of National Lottery players. The project worked with young people and community groups to build a network of people who care about, and have the skills to care for, the town's greenspaces. The natural environment was improved through measures including increasing native woodland cover, removing non-native invasive species, and creating new wildflower meadows. Greater connections between local people and the nature in their neighbourhood has been forged through activities and events, imaginative artworks and new interpretation, and practical volunteering. Creating Natural Connections was a partnership project between the Scottish Wildlife Trust, North Lanarkshire Council, The Conservation Volunteers, Sanctuary Scotland, and the James Hutton Institute. Achievements since 2021 have included:

- The creation of an agricultural meadow within Cumbernauld Community Park, bringing diversity to the site, as well as providing feeding and nesting opportunities for a range of farmland birds. The selected area of the Community Park was in agricultural use until recent years. 4 Creation and enhancement of many other meadows at Cumbernauld Community Park, St Maurice's Pond, and Ravenswood Local Nature Reserve.
- Progression of Invasive Non-native Species survey along the Luggie Water. The aim of the project was to build a more comprehensive picture of where invasive species occur within the Cumbernauld Living Landscape (CLL) catchment area, and where possible determine the source of these species. The survey focused on Himalayan Balsam and Japanese Knotweed; however other notable species were also recorded. Training on invasive species identification and survey methods were provided to volunteers and internal staff in the form of an indoor classroom session, which included identification, ecology, and habitats of INNS (Invasive Non-Native Species) species, UK distribution, growth stages and biosecurity. An outdoor session to identify these species on the ground was undertaken to help to identify similar native species that can often be mistake for the non-native species.
- Restoration of 3 urban bogs. This partnership project between CLL, NatureScot and North Lanarkshire Council has helped re-wet 3 urban bogs within the Cumbernauld area (Broadwood, Sparrow and Abronhill). In 2019 feasibility studies were undertaken on the three bogs, which showed that the bogs needed work to stop deterioration of the peatland. Applications for grants from NatureScot's Peatland Action Fund were sought and awarded. Works were undertaken in the winter of 2022 -2023. The three urban peat bogs in Cumbernauld are rare, there are few places you will find this important habitat and carbon store so close to people's homes. The goal of this project was to restore the function of the bogs as close as possible to a natural raised bog hydrology, with peat-forming vegetation over most of its surface. This was undertaken through scrub removal and the peat and plastic damming at all three bogs. Understanding of the successfulness of this project will take place through biannual monitoring of the water table on the bogs.

Creating Natural Connections Access Projects

- 4.28 North Lanarkshire delivered a number of access improvement projects improving access to and within key greenspace sites in Cumbernuald. This was delivered through a partnership project (Cumbernauld Living Landscapes) and NLHF funded. The key sites were;
 - Broadwood Loch
 - St Maurices Pond
 - Ravenswood Local Nature Reserve
 - Luggiebank Wood
 - Palacerigg Country Park

Over 5000m2 of footpath surface was renewed. Each of the greenspaces were adjacent to local residential areas and the improvements helped people better access their greenspace and help to improve positive mental and physical well-being.

Dumbreck and Garrell

- 4.29 The Dumbreck and Garrell project was a partnership between North Lanarkshire Council and Scottish Environmental Protection Agency (SEPA) funded by the Water Environment Fund and North Lanarkshire Council. The project aimed to improve Dumbreck Local Nature Reserve and the adjacent Garrell Burn for the local community and wildlife by providing improved paths with improved protection from flooding. Renaturalising the Garrell Burn and restoring wetland habitat in Dumbreck Local Nature Reserve. In terms of biodiversity the project objectives were:
 - Habitat improvement over the site. A habitat plan was developed for the site recommending several improvements were carried forward which benefit nationally rare species such as lapwing, sand martin, kingfisher, water vole and bats.
 - River re-wilding: restoration of a natural river channel and alleviation of flooding. The Garrell Burn, as it leaves Kilsyth, was heavily straightened and regularly broke out of this artificial channel. It was restored to a natural shape providing much more valuable wildlife habitat for fish, insects, and birds. It is also now more attractive and visible for visitors.
 - Being next to Dumbreck nature reserve gave us the opportunity to allow the river to top over into the wetland – feeding water to these valuable local habitats. This has been achieved by working with nature rather than artificial structures (e.g. concrete channels and overflows etc.).
 - We have also allowed improved fish and eel access into the Garrell Burn by creating a more natural river and installing fish and eel passes at two small weirs which previously obstructed fish access into the upper Garrell.

Phase 1 of the Garrell Burn River Restoration project is now complete. The river channel, once straightened and fast flowing has been returned to a more natural course providing additional flood capacity in the marsh during times of heavy rain. Slowing down the movement of water and retaining it for longer in Dumbreck Marsh prevents more damaging impacts of flooding downstream to homes, businesses, and infrastructure. With funding from the National Lottery Fund, Phase 2 of the project is underway. A Project Officer has been appointed and will be working on projects in Kilsyth until Summer 2025. These projects include community engagement and involvement, developing a volunteer group, developing a new site Management Plan, develop a species and habitat survey and developing interpretation signage throughout the site.

Clyde Climate Forest

4.30 North Lanarkshire Council have delivered tree planting through a partnership project with Clyde Climate Forest (CCF) and Trees For Cities (TfC), who provided some funding to assist with the cost of planting. One of the focus areas of the Clyde Climate Forest is increasing urban canopy cover in 'Target Neighbourhoods'. Sites were selected in each of the local authorities in the Glasgow City Region based on areas of low urban canopy cover data as well as SIMD. In North Lanarkshire, the Hattonrigg locality of Bellshill was selected in 2022. TfC delivered community tree planting events,

and a number of tree standards were planted within amenity areas. In total, 800 whips and 37 standards were planted. All species planted were native broadleaves such as Oak, Rowan, Silver birch and Hazel. As well as increasing woodland habitat within the area, the tree planting will promote biodiversity and improve local greenspaces for the community. Increasing urban canopy cover will help make communities more resilient to the effects of climate change. Further works are planned through this project in 2024.

Climate Emergency Woodlands

- 4.31 Community Greenspace was allocated a spend from the Leader of the Council to plant one tree for every primary school aged child (37,000) in NL. They partnered with Green Action Trust to fulfil all the strategic elements within the timeframe, and additionally were able to draw in maximum grant funding, adding value to the project and providing opportunities to continue planned growth in the NL woodland asset in future financial years in a planned manner. The objectives included:
 - Create 4 new 'Climate Emergency' woodlands in North Lanarkshire. These woodlands are registered under the Woodland Carbon Code, enabling the Council to accurately record the amount of carbon that will be sequestered through these planting schemes.
 - Trees to be of native species to maximise biodiversity benefits.
 - Ensure measures were put in place for woodlands to establish to maturity.
 - Undertake planting events with local school groups

Open Space Strategy and Biodiversity

- 4.32 The Planning (Scotland) Act 2019 requires planning authorities to prepare and publish an open Space Strategy (OSS). The OSS is a strategic framework of the planning authority's policies and proposals as to the development, maintenance and use of green infrastructure, including open spaces and green networks. The NLC Open Space Survey of open and greenspaces utilises a Quality Assessment to capture data. There are six components to the quality assessment, the one most relevant to biodiversity is Supporting Ecological Networks which consists of four biodiversity questions relating to sites:
 - 1. Offers a diversity of habitats and contributes positively to biodiversity.
 - 2. Quality of habitat, richness of species and structure of individual species.
 - 3. Connects with wider green networks, or other greenspaces or habitats.
 - 4. Ability to connect with nature.

As well as this invasive non-native species (INNS) data is collected for sites, and there are specific biodiversity questions to capture data on biodiversity in cemeteries. These questions were developed from priorities in the LBAP. The information gathered will be utilised to inform positive actions for biodiversity and Nature Networks in the future within North Lanarkshire.

4.33 In North Lanarkshire we have many open and green spaces. These spaces are usually within and on the edges of towns and villages and include parks, gardens, playing fields, woodlands, river corridors, play areas, allotments, and civic spaces. Our green and open spaces are more than just places for recreation or to help wildlife thrive - they provide important functions to society which have an economic value. Green and open spaces directly improve our health and wellbeing, benefitting society and helping to reduce costs on local and wider communities, the NHS, other public sector services and local businesses. Well-managed and maintained spaces can support people to interact with each other and promote a sense of place and community pride. Green

and open space provides opportunities for sport and recreation and support active and healthy lifestyles and sustainable choices for people wishing to grow their own food and travel safely by foot or bicycle. Green networks and corridors that link spaces also promote biodiversity and enable movement of wildlife, in conjunction with reducing pollution, tackling climate change and mitigating the effects of extreme weather conditions such as flooding. The development of our Open Space Strategy will also set out a strategic framework that will enable the Council (and partners) to make better informed and more effective decisions around asset and land management, and will inform future investment programmes, including Town and Community Hubs and delivery of our town visions. As such, during the development of the Open Space Strategy we had to take account and be aware of the following North Lanarkshire Strategies, Action Plans and Policies:

- Active Travel and Access Strategy
- Air Quality Action Plan
- Biodiversity Action Plan
- Climate Plan ACT 2030
- Climate Ready Clyde Adaptations Strategy
- Core Paths Plan
- Food Growing Strategy
- Local Development Plan
- Local Transport Strategy
- Single Use Plastics Plan
- Tree Asset Management Plan and Operational Woodland Plan

Public perception of Green and Open Space

4.34 Two major survey exercises each for Green & Open Space and Play were carried out in the spring and summer of 2023. Both exercises were double-surveys of those using the spaces, as well as any parents and carers of open space/play users. The response was encouragingly huge and clearly captured the attention and interest of a robust cross-section of our communities across North Lanarkshire. Overall, respondents were happy with the amount and condition of their open spaces. Hundreds took the opportunity of identifying particular places that were important to them. As part of the Open Space Audit, online surveys sought feedback from our communities on the perceptions of green and open space in North Lanarkshire. People were also invited to use an interactive online map to identify sites in the area that were important to them.

Open Space Survey 1: The question was "*Tell us your views on North Lanarkshire green and open space*". A total of 1,185 responses were received on people's perception of green and open space (Open Space Survey 1).

Open Space Survey 2: This was an interactive map-based exercise, focussed by the question "*Tell us what sites are important to you*". A total of 465 spaces were identified as being important. Although fewer in number, the return rate is still sufficiently robust enough to draw meaningful conclusions. With people being asked to identify sites on an interactive map, it may have been the case that fewer people felt comfortable with maps and experience difficulties referencing thoughts spatially.

The main findings were:-

• 88.11% of participants visited open space once a week or more.

- 73.76% had a 10-minute walk or less to their nearest green or open space. The majority (53%)- could walk to their nearest green or open space within 5 minutes.
- 89.7% of participants strongly agreed with the statement 'Visiting green spaces makes me feel better'.
- 53.84% of participants were very satisfied or quite satisfied with the quality of their local green space.
- 69.96% of participants responded 'yes' or 'maybe' that they would be interested in volunteering in future.
- The main factors that would influence if people used green and open space more or less often were: Litter; Antisocial behaviour or vandalism; Maintained paths for walking, wheeling, and cycling; and Levels of cleanliness

Play Survey 1 (Parents and carers) 1,663 responses

- 42.93% said their child(ren) go outside to play or hang out with friends several times a week.
- 72.16% of participants said their child(ren) get to where they play by walking, wheeling, cycling, scooting, skateboarding or blading.
- 71.38% had a 10 minute walk or less to where their child(ren) play.
- 44.14% of participants were either quite dissatisfied or very dissatisfied that their child(ren) have access to outdoor play outside of school hours. The most popular response was quite satisfied (26.88%).
- 72.5% of participants agreed strongly or agreed slightly that their local play space was easy to get to by walking or cycling.
- The main issues highlighted when asked what participants didn't like their child(ren)s play space were; Litter; Dog poo in the play space; Equipment that is broken or has missing has parts; and Dangerous litter, for example glass or needles

Play survey 2 (Opinion and map based - Children and young people) 931 responses

- 54.59% of children and young people responded that there was outdoor public play/hang out space near to where they live that they could walk or cycle to on their own or with friends (without an adult).
- 931 responses when we asked children and young people identified their favourite play space on a map-based survey.
- 68.91% usually get to their favourite play or hang out space by walking, wheeling, cycling, scooting, skateboarding or blading.
- When asked to think about a space they didn't like and why, the most popular responses were: Litter; Dog poo in the play space; Dangerous litter, for example glass or needles; and Equipment that is broken or has missing has parts.

NLC (Draft) Open Space and Play Sufficiency Audit – All Sites Audited



Source: Draft NLC Open Space Strategy 2024





Source: Draft NLC Open Space Strategy 2024

NLC (Draft) Open Space and Play Sufficiency Audit - All Sites Audited + Spaces Survey Identified as Important



Source: Draft NLC Open Space Strategy 2024

4.35 In addition the Open Space Survey has involved the Council's Greenspace Service carrying out a qualitative assessment of the surveyed open spaces within North Lanarkshire with scoring ranging from 5 – Excellent, 4 – Above satisfactory, 3 – Satisfactory, 2 – Below Satisfactory and 1 – Poor. The quality assessment looks at themes including:

• Biodiverse supporting ecological networks

- o Offers a diversity of habitats and contributes positively to biodiversity;
- Quality of habitat and diversity, quality, richness of species and structure of individual species;
- o Connects with wider green networks, other greenspaces and habitats.

• Accessible and connected

- Accessible entrances in the right places;
- Fit for purpose paths
- Equal access for all, including wheelchair accessible (no adverse gradients, barriers to access, etc)
- Site allows movement around, through and between areas. Access routes available to public.

The survey questions included assessment in relation to the following relevant areas in relation to this topic paper:

- Are there opportunities to increase the biodiversity or naturalised management of this sites?
- Are there opportunities to use this site to improve climate resilience (e.g. natural flood management, carbon sequestration, renewable energy generation, (active travel))?
- Use of Blue/Green infrastructure designed and managed for sustainable drainage and natural flood management: SUDs, minimise water run-off, flood water holding capacity, naturalised watercourses and wetland areas, rain gardens etc?
- Is there evidence of conservation management?
- Connects with wider green networks, other greenspaces and habitats?
- Is there invasive species?
- Is there presence of food-growing activities e.g. allotments, raised beds, orchard etc?

The analysis of the assessments and survey work is ongoing and will be contained within the finalised Open Space Strategy. NLLDP2 will utilise the findings of the OSS in conjunction with other current survey work such as the Local Biodiversity Action Plan and Woodland Strategy to inform and identify potential projects on Council owned land that can contribute to nature networks for the creation of new habitats and the restoration of degraded habitats as well as be a key consideration in the site selection process.

- 4.36 Nature Networks are primarily for improving connectivity and enhancement of biodiversity, however their importance in facilitating blue-green infrastructure as an inter-related benefit is equally as vital. Nature Networks connect nature-rich sites, including restoration areas and other environmental projects, through a series of areas of suitable habitat, habitat corridors, and stepping stones. Nature Networks provide a system of interconnected natural areas, with a focus on connecting existing 30x30 (the term given to the ambition by the Scottish Government to protect 30% of Scotland by natural heritage protections by 2030) sites, that together create a more sustainable and resilient landscape for wildlife and people. They are to be designed to support biodiversity and ecosystem services by maintaining and enhancing ecological connections.
- 4.36 The initial NNC map for Scotland developed by AECOM uses a methodology that identifies potential ways of connecting all of Scotland's 30x30 sites and are an initial indication of what Scotland's Nature Networks have the potential to look like. The methodology ranks the corridors according to 'cost', using a 'least cost' method, '0' being the corridors of lowest cost, and '5-7' being the corridors with highest cost. An extent map of this mapping tool is provided below for illustrative purposes within Figure 4 below.



Source: Nature Networks Corridors - AECOM

This is not a definitive list of NNCs within North Lanarkshire as they are intended as a starting point for local authorities to consider the possibilities for their Nature Networks. Nonetheless, given that new development is often proposed at sites on the edge of settlements in rural and semi-rural locations, it is important to consider such datasets when developing future blue/green infrastructure and incorporate the potential for habitat linkages into any proposed projects, particularly where it can be demonstrated that the cost-efficiency of the site is favourable.

Core Path Networks and Rights of Ways

4.37 The Land Reform (Scotland) Act 2003 placed a duty on local authorities to produce a core paths plan. The Council's "*Core Paths Plan*" identifies a network of paths that gives people reasonable (non-motorised) access within North Lanarkshire. Core paths may include Rights of Way (not all Rights of Way are core paths), other existing routes such as paths, footways, cycle routes, paths established through public path agreements and orders and waterways over which access rights are applicable. The core path network provides opportunities to link communities and to help the people of North Lanarkshire to lead healthier lifestyles by taking regular exercise. It is recognised that providing for human access between and within sites of blue and green infrastructure is greatly supported by Core paths and other informal links not officially adopted within the Core Path Plan.



Source: NLC core path network (arcgis.com)

- 4.38 As mentioned above, many of the paths shown on the Core Path Plan are statutory Rights of Way. There are 202 registered Rights of Way in North Lanarkshire, and the Council has legal responsibility for ensuring they are kept open and free from obstruction. Rights of Way have to be claimed/asserted/established/vindicated through a separate legal process. To be a Right of Way, a route must:
 - join two public places (e.g. public roads or other rights of way); and
 - follow a more or less defined route; and
 - have been used, openly and peaceably, by the general public, as a matter of right, i.e. not just with the permission of the landowner; <u>and</u>
 - have been used without substantial interruption for at least 20 years.



Source: Rights of Way | Rights of Way | North Lanarkshire Council - GIS Open Data

Surface Water Management and Drainage Infrastructure

4.39 Blue-green infrastructure provides a creative opportunity to enhance our response to flood risk in urban areas. By incorporating blue-green infrastructure early in the design process, we can supplement traditional grey infrastructure while simultaneously promoting biodiversity and providing recreational amenities. Unlike grey infrastructure, blue-green solutions aim to reinforce the natural water cycle, contributing to public amenities and ecological benefits. This is achieved by slowing down the discharge rate of water into conventional drainage systems, integrating hydrological and ecological features into the urban landscape, and offering resilient, adaptive measures to handle flood events. Surface water management is a crucial aspect of climate adaptation and flood resilience in the National Planning Framework 4 (NPF4), which mandates the management of surface water flood risk and that all rain and surface water be managed through sustainable urban drainage systems (SUDS), which should be integrated with blue-green infrastructure. Planning for future surface water flood risks may also

necessitate the protection of adaptive green spaces that can absorb storm water. Additionally, NPF4 Policy 20 protects blue and green infrastructure and their networks, recognising their multiple functions, including climate mitigation, flood prevention, and nature restoration.

Sustainable Urban Drainage Systems (SUDS)

4.40 Designed to provide areas to store water in natural contours and therefore allowing water to soak (infiltrate) into the ground where infiltration conditions are suitable. SuDS basins and ponds can slow runoff before it enters watercourses and are now a standard feature of newbuild housing developments nationally with over 700 sites being registered and 4000 systems being implemented. As the current design manual for SuDS primarily focussed on setting the technical standards for water retention during storm events there is, in practice, often a lack of creativity when designing SuDS basins within new developments so that they can provide wider benefits than simply storing water. Whilst important to ensure that SuDS ponds and basins remain technically effective it is also important to try and encourage enhancement to harness these co-benefits of blue-green infrastructure accordingly. While SuDS must be effective as a drainage measure in the first instance, Sewers for Scotland Version 4 states "Ponds shall appear, in so far as is reasonably practicable, to be natural. They shall not be built in symmetrical shapes or have angular corners. Ponds may provide wider environmental benefits for bio-diversity." Appropriate plants are permitted and even required to be selected for some SUDS. Design considerations include the surrounding land use the bioengineering requirements, growth patterns, the maintenance regime, any biodiversity or wildlife requirements the climate, water regime and soil type. Native plants are to be preferred where possible, but these do need to be carefully selected to ensure adequate growth and local suitability. Maintenance should be carefully considered to ensure that the SUDS basin continues to operate properly.

Natural Flood Management

4.41 Securing secondary uses of SuDS infrastructure so that they appear more cohesive and fully integrated and provide wider benefits than water storage (such as contributing to landscape setting and biodiversity enhancement) is a prime example of how bluegreen infrastructure can be seamlessly integrated into design. Other examples include urban rain gardens and planted areas with underground water attenuation, which can be effectively incorporated into design solutions from the outset, thus avoiding costly retrofitting later. It is recognised that blue-green infrastructure can offer additional advantages in supporting Natural Flood Management (NFM). These measures aim to store or slow down floodwaters through techniques such as woodland planting, wetland creation, river restoration, and the development of intertidal habitats. NFM strategies not only aid in flood management but also enhance biodiversity, water quality, and recreational opportunities. In some cases, they can complement traditional hard flood defences, enhancing their resilience to climate change.

Blue and Green Infrastructure in the Urban Environment

4.42 The introduction of small-scale urban solutions for blue and green infrastructure will be vital for enhancing the sustainability and resilience of existing and proposed urban areas. Green infrastructure initiatives such as green roofs, walls, rain gardens, permeable pavements, urban trees, pocket parks, bioswales, and community gardens can significantly improve air quality, reduce urban heat islands, and manage stormwater. Concurrently, blue infrastructure solutions like rainwater harvesting, constructed wetlands, stormwater planters, green streets, daylighting streams, and

floating gardens enhance water management and biodiversity. Integrating these solutions, through eco-friendly urban furniture, multi-functional open spaces, and vertical gardens with irrigation systems, promotes efficient resource use and fosters vibrant, healthy urban environments. Prioritising investment for new blue-green infrastructure and making these an integral part of the drainage solutions could be a potential solution for developments within our urban areas in North Lanarkshire.

5.1 **Potential Connections in Evidence**

- 5.1 The Plan for North Lanarkshire is the council's main strategy for the area to improve services and outcomes for the communities who live here. It provides a shared ambition for inclusive growth and prosperity for all. It sets a path for the council and partners to follow. The Plan covers a wide range of activities that can impact on carbon emissions and help to make North Lanarkshire a more sustainable place to 'live-learn-work-invest-visit'.
- 5.2 In the UK the past four decades have been warmer than the one before. In North Lanarkshire it is expected that the average summer temperatures will increase, and the number of rainy days will reduce. The volume of rain on summer's wettest day will increase. Our winters are expected to be milder. Whilst the impact of climate change may seem to be less severe locally, in recent years we have seen an increase in severe weather events. These can affect us through:
 - Travel Disruption
 - Emergency Response Situations
 - Loss of power supply
 - Landslides
 - Flooding
 - Disruption to service Delivery
- 5.3 The council recognised that it must take action and declared a climate emergency in June 2019. It has committed itself and the area of North Lanarkshire to achieving netzero by 2030. Concerned about the impact of climate change on biodiversity, North Lanarkshire Council became a signatory of the Edinburgh declaration on Post-2020 Global Biodiversity Framework.

<u>Biodiversity, Natural places and Blue and Green Infrastructure - implications for topic</u> <u>1 tackling the climate and nature crises and topic 2 climate mitigation and adaptation.</u>

- 5.4 All three topics Biodiversity, Natural Places and Blue and Green infrastructure are deeply interconnected with the climate and nature crises. Biodiverse ecosystems like forests, wetlands, and grasslands are significant carbon sinks. They absorb and store carbon dioxide (CO2) from the atmosphere, helping to mitigate climate change. Diverse plant species contribute to healthy soils, which can store large amounts of carbon. Soil organisms also play a role in carbon cycling and storage. Biodiverse ecosystems are generally more resilient to environmental changes and extreme weather events. This resilience can help buffer the impacts of climate change. Species diversity allows ecosystems to adapt to changing conditions. Different species may respond differently to changes, ensuring that some species can thrive even as others decline.
- 5.5 Diverse plant life can influence local climates by providing shade, cooling the air through transpiration, and influencing humidity. Large-scale biodiversity, particularly in forests, can affect weather patterns and rainfall distribution. Wetlands store large amounts of carbon in their soil and vegetation. Peatlands, a type of wetland, are

especially efficient at carbon storage. Biodiversity provides essential resources such as food, water, and raw materials and helps regulate natural processes including air and water purification, pollination of crops, and pest control. Biodiversity also supports recreational, aesthetic, and mental health benefits for people. Biodiversity is essential for maintaining complex food webs. Natural places support complex interactions among species, contributing to the overall health of ecosystems. The loss of these places or loss of one species can have cascading effects on others, leading to further extinctions and ecosystem collapse. Reducing biodiversity through deforestation releases stored carbon, contributing to climate change, which in turn leads to further biodiversity loss. Climate change forces species to migrate to new areas, often leading to conflicts with existing species and ecosystems, and sometimes resulting in invasive species problems.

- 5.6 It is therefore vital that we protect existing biodiverse ecosystems and restore degraded ones in order to enhance carbon sequestration and improve ecosystem resilience. Establishing protected areas and wildlife corridors can help preserve species and facilitate their adaptation to climate change. stablishing and managing protected areas can safeguard natural places and their biodiversity. Balancing development with conservation through sustainable urban planning and infrastructure development can reduce the impact on natural places. Implementing nature-based solutions, such as reforestation, wetland restoration, and the creation of green urban spaces, can address both climate and nature crises simultaneously. Integrating climate, biodiversity, and land use policies ensures that actions in one area do not negatively impact another.
- 5.7 Blue and Green Infrastructure plays a crucial role in addressing the climate and nature crises. This type of infrastructure can be utilised to integrate natural elements and processes into urban environments and landscapes, offering numerous environmental, social, and economic benefits. Green infrastructure, such as urban forests, green roofs, and parks, absorbs CO2 and stores carbon in plants and soil. Similarly, blue infrastructure, such as wetlands and urban water bodies, contributes to carbon sequestration, particularly in aquatic vegetation and sediments. Green infrastructure helps to mitigate the urban heat island effect by providing shade and through evapotranspiration, cooling the air. Blue infrastructure, such as lakes and ponds, can also help moderate temperatures.
- 5.8 Blue infrastructure, like wetlands, rain gardens, and bioswales, can absorb and manage stormwater, reducing the risk of flooding. This is increasingly important as climate change leads to more intense and frequent storm events. Green infrastructure improves soil health and water retention, enhancing resilience to droughts. Blue infrastructure, such as constructed wetlands and retention ponds, can store water during wet periods for use during dry periods. Green and blue infrastructure provides habitats for a wide range of species, increasing urban biodiversity. For example, green roofs can support pollinators, and urban wetlands can host birds, amphibians, and aquatic plants. These infrastructures create ecological corridors that connect fragmented habitats, allowing species to move and migrate, which is essential for maintaining genetic diversity and healthy ecosystems. Green infrastructure, such as urban gardens and parks, supports pollinators, which are critical for crop production and maintaining plant biodiversity. Blue infrastructure, like wetlands and vegetated swales, helps filter pollutants from stormwater, improving water quality in urban areas.
- 5.9 Incorporating green and blue infrastructure into developments ensures that cities are designed to be resilient to climate change and supportive of biodiversity. Designing spaces that serve multiple purposes, such as recreation, habitat provision, and stormwater management, maximizes the benefits of blue and green infrastructure.

Conclusion in terms of implications for topic 1 and 2

5.10 It is considered that the proposed issues addressed by the Biodiversity, Natural Places and Blue and Green Infrastructure topics show that North Lanarkshire is aligned with the requirements of NPF4 in seeking to protect, conserve, restore and enhance biodiversity in line with the mitigation hierarchy and promote nature recovery and nature restoration across the development plan area. This includes the creation of nature networks and strengthening connections between them to support improved ecological connectivity, restoring degraded habitats or creating new habitats, and incorporating measures to increase biodiversity, including populations of priority species.

Other topic/policy overlaps stated in NPF4

- 5.9 It is possible that connections may exist with the following topics and in the following ways.
- 5.10 There is potential for some positive effects for the following topic areas:
 - Policy 5 Soils
 - Policy 6 Forestry, Woodland and Trees
 - Policy 7 Historic Assets and Places
 - Policy 8 Green Belts
 - Policy Brownfield, Vacant and Derelict Land and Empty Buildings
 - Policy Sustainable Transport
 - Policy Design Quality and Place
 - Policy Infrastructure First
 - Policy Play, Recreation and Sport
 - Policy Flood Risk and Water Management
 - Policy Community Wealth Building
 - Policy City, Town, local and Commercial Centres
 - Policy Rural Development
 - Policy Tourism

The benefits of seeking to protect and enhance biodiversity, natural places and promote the utilisation of blue and green infrastructure clearly align and overlap many the topics above. In addition, there are less direct overlaps for some of the topics which will still be enhanced with the utilisation of the principles contained within the topics when considering developments.

- 5.11 There is potential for some negative effects for the following topic areas:
 - Policy 11 Energy
 - Policy 16 Quality Homes
 - Policy 17 Rural Homes
 - Policy 29 Rural Development
 - Policy 33 Minerals

Given that the topics seek to conserve and enhance biodiversity and natural places it is clear that there is potential to limit some types of development related to these topics.

6 <u>Site Selection Implications</u>

6.1 The issues that have been identified to inform the site selection process are:

- Issue 1 Ensure that all new development delivers positive impacts for biodiversity in line with the requirements of NPF4 which will require greater attention to the biodiversity considerations of new development during the site selection and evaluation processes. Any site selection should be based on an understanding of the existing characteristics of a site and its local, regional and national context, including the presence of any irreplaceable habitats. Proposals for inclusion in the LDP will need to be checked against mapped constraints to avoid impact and capitalise on opportunities for creating linkages and enhancement.
- Issue 2 The challenge to provide a framework for integrating nature-based solutions into proposals that aim to protect, restore and sustainably manage natural systems whilst also addressing climate challenges effectively and adaptively, simultaneously providing climate adaptation, biodiversity enhancement and well-being. Development proposals that incorporate nature-based solutions will be preferred over those that do not.
- Issue 3 Look at opportunities to incorporate masterplans and design briefs to ensure that biodiversity and habitat improvements are fully considered for proposals and ensure that they deliver the positive impacts intended. Development proposals will be favoured when they demonstrate the intention to provide long-term positive effects for biodiversity, including where appropriate nature-based solutions to address climate challenges. Positive effects should be measurably above existing baseline levels.
- Issue 4 Ensure that we continue to work in partnership with surrounding local authorities and other relevant stakeholders to create and improve existing nature networks by continuing to connect locally important biodiversity sites. NPF4 seeks to strengthen nature networks and places a requirement on NLLDP2 to facilitate the creation of nature networks and strengthen connections between them to support improved ecological connectivity and restore degraded habitats or create new habitats. Development will have a key role to play in protecting, i.e., not severing, existing networks and provides connectivity at scale. A significant consideration of NLLDP2 will be how to successfully integrate new areas for development where they converge with existing nature networks. Proposals forming linkages and contributions to creating nature networks and providing connectivity will be favoured in the site selection process.
- Issue 5 Look to utilise the current Local Biodiversity Plan, Woodland Strategy and new Open Space Strategy to inform and identify projects on Council owned land that can contribute to nature networks, the creation of new habitats and the restoration of degraded habitats.
- Issue 6 Look at opportunities to incorporate masterplans and design briefs to ensure that biodiversity and habitat improvements are fully considered for proposals and ensure that they deliver the positive impacts intended.
- Issue 7 NLLDP2 will seek to protect existing areas of blue and green infrastructure in addition to utilising mapping to identify areas with potential for blue and green infrastructure that can be safeguarded and protected. The mapping will also assist in identifying where buffers are required to safeguard blue and green infrastructure by protecting the green network areas and the water environment. Similarly, NLLDP2 will examine opportunities to incorporate

masterplans and design briefs to ensure that protection or improvement to blue and green infrastructure are fully considered for proposals and ensure that they deliver the positive impacts intended.

- Issue 8 Look at opportunities to have multi-functional blue and green infrastructure that can perform several functions such as biodiversity enhancement, recreational utility and enhancing active travel links whilst performing their primary function also.
- Issue 9 The NLLDP2 will seek to ensure that blue and green infrastructure projects are designed and located to be accessible to all, and particularly to those with poor access at present.

7 Implications for North Lanarkshire Local Development Plan 2

7.1 Based on the evidence, analysis and views presented in this survey paper, North Lanarkshire Council currently considers that the topic policies in NPF4 for topics 3 Biodiversity, 4 Natural Places and 20 Blue and Green Infrastructure should be applied as per NPF4 in North Lanarkshire as there is no need to consider locally specific policy to support decision making in this regard.