Newcastle under Lyme Borough Council

Open Space and Green Infrastructure Strategy

Final report

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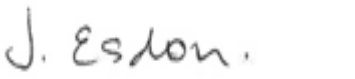
Author	A Tempany, S West	**Technical reviewers**	C Frain
Signature		Signature	
Date:	25.02.2022	Date:	04.03.2022
Project manager	A Tempany		J Esdon (Minor updates April 2022)
Signature			
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EXECUTIVE SUMMARY

As we seek to make cities, towns and villages more sustainable in response to macro scale challenges such as the climate emergency and the ecological crisis, our natural environment and valued greenspace networks have a critical role to play. This importance has been brought into sharp focus by the recent and unfolding Covid-19 pandemic, which has revealed not only the value people place on their natural and semi natural greenspace networks, but often real issues with equality of access to provision.

A central, linked part of this discussion of macro-scale issues is nature recovery and the potential of nature-based solutions and green infrastructure (a sustainable, multi-use or multi-functional approach to land use planning and landscape planning) to contribute to positive action to address the climate emergency.

This Open Space and Green Infrastructure Strategy has been commissioned partly in response to these challenges, and to identify strategic opportunities to deliver potential solutions, as well as to inform a sustainable, considered approach to growth in the borough to 2040. With the production of the new Newcastle-under-Lyme Borough Local Plan to 2040, it is also a timely moment to take stock of the earlier 2017 Open Space and Green Infrastructure Strategies, reviewed, updating and expanding this work and baseline to reflect the above priorities and the aims NULBC is working to in the new Local Plan.

What this Strategy contains:

This Strategy provides:

- Robustly defined local open space standards, in terms of quality, value, quantity and accessibility.
- A nature-based vision for green and blue infrastructure across the borough, grounded in sound evidence. The vision provides a creative roadmap of deliverable, sustainable proposals for environmental resilience and landscape scale nature recovery networks across the borough; and
- Integrated consideration of open space and green infrastructure planning as part of a sustainable, holistic approach to planning the long term spatial direction of growth during the plan period and beyond.

The spatial and policy context for the Strategy are set out in **sections 1 and 2** of the main Strategy report. **Part 1** of the report sets out the Open Space Assessment and Strategy, including the baseline and current open space provision as at February 2022 and proposed open space provision standards considering quality, value and accessibility. **Part 2** of the report sets out the proposed Green Infrastructure Strategy for the Borough. This includes a GIS analysis of the performance of the existing green infrastructure network in the context of a series of spatial, environmental and social functions or ecosystem services, plus a vision for green infrastructure in the borough to 2040. The vision is supported by a strategic green infrastructure network and proposals map (**Figure 9.2**), based on series of landscape scale action zones for rural and urban green infrastructure and supported by a suite of component projects which NULBC and partners can work towards in the plan period. **Chapter 10** of the Strategy report brings together the findings of the two parts of the Strategy in an action plan for open space and green infrastructure to 2040.

Summary findings from Part 1: Open Space Assessment and Strategy:

A summary of key findings from the Open Space component of the Strategy is set out below:

- A large proportion of residents are within the catchment area of a sub-regional scale natural and semi-natural greenspace or park and garden.
- There should be a focus on enhancing and improving the multifunctionality of the larger sub-regional open space sites. Multifunctional local scale open spaces and pocket parks should be provided within areas of higher levels of deprivation and where there are little open space catchment overlaps.
- There are localised accessibility catchment deficiencies particularly at the margins. Therefore it will be important to continue to work with the surrounding local authorities to ensure access to open space sites outside of the borough is secured for use by its residents.
- The Rural South has identified quantitative deficiencies of amenity greenspace, parks and gardens and provision for children and teenagers. The Urban North sub-area has a slight deficit in accessible allotment provision.
- In terms of allotments and accessibility catchments the Rural South shows deficits. Areas west of the Central sub-area and localised areas within the Urban North also appear to have deficits.
- Further assessment is needed of the location of allotments within wards, number, waiting lists and costs as this will provide a good indicator of need in particular wards. Where there are deficiencies there should be consideration of increasing plots within existing sites and seeking provision in the surrounding settlements.
- Amenity accessibility catchments are primarily within the north east of the borough within the Urban North. There are pronounced deficits in the Rural South and limited provision in the Central sub-area.
- Parks and garden provision is mainly located to the north of the borough with a lack of provision and associated amenities within the Rural South.
- There is a good distribution of equipped play provision within the borough. There are deficits within the western half of the Central sub-area and notable deficiencies in the Rural South. There is a deficit of provision for the teenager age group within the Rural South and borough as a whole which is normally provided for through NEAPs which was also confirmed through consultation.
- The equipped play provision sites could provide an improved location offering and they currently have limited play value when referring to the Play England criteria. Quality standards tend to be better across the borough however there are localised issue with care and maintenance standards. The Rural South has a greater score overall for aspects of play provision, this may be due in part to less intensive use. There may be opportunities to provide more natural play features at sites including within natural and semi-natural greenspace.
- A significant proportion of allotments (and other natural or semi-natural greenspace) had limited access or no access. This reflects the nature of allotment use and tenancies, therefore this may vary actual accessible provision levels within the sub-areas.
- There can be targeted improvements to quality and value through a range of measures including providing safe stable footways, wayfinding/signage, implementing appropriate site furniture, plus improved care and maintenance frequencies balanced with relaxed mowing/maintenance regimes to benefit the environment.

Summary findings from Part 2: Green Infrastructure Strategy:

A summary of key findings from the green infrastructure component of the Strategy is set out below, with particular reference to the opportunities functional analysis which shaped the development of the green infrastructure vision and strategy (**Chapter 8-9** of the main report). Many of these show overlap between the six respective environmental and social functions below, which demonstrates the added value potential of using multi-functional green infrastructure networks to contribute

solutions to sustainable development issues and needs. A key focus of the Strategy has been to enhance connectivity and links between existing green infrastructure assets, notably in the rural southern part of the borough, where spatial green infrastructure provision is often good but the links are lacking.

Function 1: Access to green recreation and active travel - opportunities:

- A need for strategic connections across the A50 to upgrade strategic access links.
- Opportunity to address the severances created by HS2 Phase 2a in the Meece Brook and Lea Valleys, and to use the legacy landscape created by the haul route for construction of HS2 as a green transport corridor with lateral links.
- Enhancement of cycle commuting routes in the urban areas, including option to explore clean and safe, off road routes.
- Scope to address local gaps in PRoW provision to create a more strategic, connected access network.
- Potential to explore user group development and activation/audience development programmes for key urban parks with current safety issues.

Function 2: Landscape setting, experience and land quality – opportunities:

- Landscape connectivity and restoration opportunities from HS2.
- Linked to the above, ancient woodland connectivity and enhanced connective planting to link ancient and semi natural woodland sites and create a more ‘wilded’ farmland landscape mosaic and network of habitats for nature recovery, which could be delivered through Environmental Land Management (ELM).
- Enhancement of the A500 corridor, considering also peri-urban sites such as restored landfill sites.
- The Lyme Brook presents a key opportunity for multi-functional landscape restoration and enhancement, for amenity and landscape experience and setting, and also natural flood management and biodiversity, among others.
- Potential scope for enhanced presentation and interpretation of a number of the regionally important geology sites (RIGS) in the borough so that people better understand their value and importance.

Function 3: Historic character, setting and legacy – opportunities:

- A rich, often intact historic landscape resource and sense of time depth is apparent in much of the rural GI of the borough in particular, which should be conserved as key parts of the rural GI network, through ELM and other mechanisms.
- To some extent this is also reflected in aspects of the urban GI network - post-industrial landscape and quarrying/minerals legacy, and the 'paradise for the potteries' at Clough Hall Park. Explore strategic opportunities to enhance such sites.

Function 4: Biodiversity and nature conservation/nature recovery networks – opportunities:

- Use of landscape management to enhance connectivity and assist in reversing fragmentation between priority habitat assets and sites, as part of a landscape scale, landscape character informed and multi-functional approach.
- Use of ELM and other mechanisms such as regenerative agriculture to contribute to creation of rural nature recovery networks.
- Opportunities for localised wilding in marginal areas of the Trent and Mersey Canal (exploring links with HS2 Phase 2a mitigation where appropriate).

- Naturalisation and restoration of sections of the Valley Brook and River Tern to create richer aquatic habitat potential and space for water linked to a natural flood management approach.
- Definition of riparian buffer zones to reinforce habitat and restrict cattle poaching and trampling, as well as to protect and enhance other key aquatic/blue infrastructure assets such as meres and pools.
- Specific proposals for improved land management of brooks and ponds to reducing over shading and silting (Coal Brook), to better manage wetland ecosystems and habitats, as well as buffer zones to capture agricultural run-off (River Lea).
- Exploration of partnerships and joint working with the Trent Rivers Trust and other related stakeholders as part of a catchment scale/whole valley approach.

Function 5: Ecosystems health and functionality – opportunities:

- Potential scope for tree planting and 'urban forestry' initiatives to trunk road and principal road corridors and associated swathes of greenspace (subject to operational and other constraints). This could and should be explored as part of a multi- functional approach e.g. also for landscape and habitat connectivity.
- Landscape scale natural flood management proposals in the Meece Brook valley, Lea Valley as part of mitigation for the planned HS2 Phase 2a alignment.
- Naturalisation and restoration of parts of the Lyme Brook, as part of a 'space for water' and resilient, multi-functional design approach.
- Explore integrated natural flood management partnership proposals with Stoke-on-Trent for relevant parts of the Fowlea Brook and the Trent and Mersey Canal.

Function 6: Healthy and cohesive communities:

- Explore and target opportunities for greenspace enhancements in the parks listed in the areas of deprivation (see **Figure 8.6** and **Table 8.6** in the main strategy report), to help address living environment and health deprivation issues.
- Linked to the access to green recreation analysis for function 1 above, enhanced access links, legibility, signage and routes to address access deficits and severances (see **Tables 8.1** and **8.6** in the main Strategy report).
- The above opportunity also has potential to link to provision of off-road walking commuting and cycling routes.

CONTENTS

TABLES

APPENDICES (SEPARATE VOLUME)

1 INTRODUCTION AND SCOPE OF THIS STRATEGY

Introduction

1.1 RSK Landscape, part of RSK Environment Ltd was commissioned in March 2021 by Newcastle-under-Lyme Borough Council to develop this Open Space and Green Infrastructure Strategy for the borough. The strategy informs the development of the emerging Newcastle-under-Lyme Borough Local Plan to 2040, also considering growth in the borough in the same period. It will guide strategic investment in and enhancement of the open space and green and blue infrastructure network across the borough and beyond.

Context and need for this strategy: Integrated open space and green infrastructure planning

1.2 This strategy was commissioned in response to the following:

- The need to review and update the previously published Open Space Strategy and Green Infrastructure Strategy, in light of emerging demographic and spatial planning evidence being developed for the Local Plan.
- The need to integrate strategic messages from DEFRA's 25 Year Natural Environment Plan and the Environment Bill, with particular reference to strategic land management for public goods, and to accommodate Biodiversity Net Gain and Environmental Net Gain.
- The need to respond to the global Coronavirus (Covid-19) pandemic with particular reference to issues this has highlighted for the greenspace network in Newcastle-under-Lyme Borough, notably with regard to the need for quality greenspace for peoples' mental and physical health and well-being, and issues with respect to the equality of access to natural greenspace.

Growth and change within Newcastle-under-Lyme Borough

1.3 The level of growth anticipated to 2040 is a growth trajectory of 350 houses per year in the borough, equating to 840 new residents per year (based upon 2020 data from the Office of National Statistics which cited 2.4 residents per household in the UK on average[1]). However, due to the in progress nature of the growth modelling for the Local Plan, two other growth scenarios have also been taken into account in this strategy. These are Experian Baseline: 410 dwellings per annum and Experian Plus: 445 dwellings per annum. All three figures have been factored into the open space standards and need assessment, where appropriate.

[1] https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2020 Accessed 22nd October 2021

Other key drivers for the work

1.4 This strategy also takes account of other relevant macro-scale drivers such as the:

- **The Ecological Crisis** across the world, in light of habitat fragmentation and species loss: The Green Infrastructure Strategy within this work will provide a roadmap for strategic biodiversity connectivity and landscape scale nature recovery networks for long term delivery at the local authority level.
- **The Climate Emergency:** Further to the legally binding Paris Agreement on climate change in 2015, in parallel with many countries and municipalities, Staffordshire County Council declared a climate emergency in July 2019, with NULBC also declaring one in 2019. The county and NULBC have both worked on an illustrative roadmap setting out the path to net zero carbon emissions by 2050[2]. Both parts of this study contribute to low carbon objectives for living, travel and commuting in particular, as well as aiming to influence sustainable modes and behaviours.
- **The United Nations Sustainable Development Goals, 2015[3]:** A global roadmap of interventions to help solve societal issues, their component targets are closely related to the benefits which can be achieved through green infrastructure interventions and closed related concepts such as nature-based solutions.
- **The 2021 Dasgupta Review into the Economics of Biodiversity[4]:** Commissioned by Treasury partly in response to the global Covid-19 pandemic, this marks a step change in thinking in relation to nature, e.g. that it is an essential part of sustainable economic development. The Dasgupta review also makes a strong case for investment in nature-based solutions (which include related concepts such as green infrastructure), due to the additionality of benefits which can be realised from them.

National level drivers and forces for change informing this Strategy

1.5 In addition this strategy also takes account of other large scale forces for change, in the form of nationally significant infrastructure projects which will have significant implications for the rural green infrastructure of the borough, notably High Speed Two (HS2) Phase 2a from Fradley to Crewe.

Local level drivers and forces for change informing this Strategy

1.6 Newcastle-under-Lyme Borough Council adopted its Sustainable Environment Strategy in December 2020 which commits, under the “Offset” theme, to undertaking a feasibility study for a tree planting programme to facilitate carbon capture, and greening. The strategy also makes commitments in relation to tree planting in the priority outcomes for the Natural Environment theme. As such a number of urban open space sites will be safeguarded in whole or part for native tree and shrub planting, meadow and species rich grassland creation and complimentary innovative carbon capture measures.

[2] https://www.newcastle-staffs.gov.uk/sites/default/files/IMCE/Planning/Planning_Policy/2804/Climate%20Change/Newcastle%20Policy%20Summary%20Addendum_Final_2020-09-11.pdf Accessed 4th May 2021

[3] https://sdgs.un.org/goals Accessed 4th May 2021

[4] https://www.gov.uk/government/collections/the-economics-of-biodiversity-the-dasgupta-review Accessed 4th May 2021

1.7 On 7th July 2021 the Cabinet approved the borough's Urban Tree Planting Strategy which set out its approach for the management and improvement of the urban forest of Newcastle-under-Lyme. See also **reference. 5.6** in **table 10.1** in this report.

1.8 In November 2021 the Council was the first in Staffordshire to adopt a Nature Recovery motion in Full Council, in recognition that nature is in long-term decline and action is needed to halt and reverse this urgently.

1.9 The Council have created a list of urban carbon capture sites where native tree and shrub planting, meadow and species rich grassland creation and complimentary innovative carbon capture measures will take place. Sites that have been agreed, and which are now under consideration for phasing are listed in **Appendix 6**.

1.10 On 2nd February 2022 an Urban Tree Planting Strategy Action Plan was approved by Cabinet, which identifies a long list of potential urban sites for tree planting projects in urban wards of the Borough, and which will link to the Sustainable Environment Strategy. The Action Plan represents a long term commitment to undertake tree planting in the borough which was started in 2021, and to create a legacy for future generations.

1.11 The areas of urban greenspace included in the Action Plan, and subsequent future additions to the plan, are designated as Urban Carbon Capture Areas. These sites are designated as such to enable them to be protected and further enhanced as important carbon capture and nature recovery sites.

Aims of the strategy

1.12 This strategy provides:

- Robustly defined local open space standards, in terms of quality, value, quantity and accessibility;
- A nature-based vision for green and blue infrastructure across the borough, grounded in sound evidence. The vision provides a creative roadmap of deliverable, sustainable proposals for environmental resilience and landscape scale nature recovery networks across the borough; and
- Integrated consideration of open space and green infrastructure planning as part of a sustainable, holistic approach to planning the long term spatial direction of growth during the plan period and beyond.

Links to other work and initiatives in the borough

1.13 Key initiatives of relevance are summarised in **table 1.1** below.

Table 1.1: Green infrastructure initiatives operating in the borough

Initiative name	Summary	Key partners/project status
Silverdale Community Country Park	Land Trust owned and managed country park, with a wide range of outreach and community and audience development initiatives since the work to deliver the site has been implemented.	The Land Trust

Initiative name	Summary	Key partners/project status
Meres and Mosses Nature Improvement Area	Prior to BogLife in Shropshire this and the related Landscape Partnership Scheme were two of the most significant landscape scale biodiversity enhancement initiatives in operation in the region.	Various – partnership project
Stoke and Urban Newcastle Rediscovering Its Secret Environment (SUNRISE)	A £3.6million partnership delivered and funded project including co-funding from the European Regional Development Fund (ERDF). The project has sought to deliver various wildlife enhancement initiatives across the two urban areas, working with the County Council, the local authorities, the Environment Agency, the Wild Trout Trust and Groundwork West Midlands.	Various – partnership projects still active and continuing to be delivered / operated
Bollin Valley Partnership/Project	A countryside management service operating within the Bollin Valley catchment.	Active
National Trust Riverlands Project	Covering the River Bollin valley, along with others across the country. The project for the Bollin involves invasive species management and creation of wetland habitat to encourage native species such as brown trout and Atlantic salmon.	Active
Churnet Valley Living Landscape Partnership	A partnership of twenty complementary organisations, working under the leadership of the Staffordshire Wildlife Trust, to deliver landscape scale heritage and biodiversity conservation initiatives in the Churnet Valley. The first five years of the scheme are funded by the National Lottery Heritage Fund.	Active
Lyme Brook – Various local initiatives by Friends Group and others	Including development of community orchard, wildflower meadow funded by Severn Trent Community Fund.	Active
Millennium Green Trusts	Key aims of the Millennium Greens, as set out in their Trust Deeds, are as follows: • Make a substantial contribution to the life of the whole community. • Be able to be enjoyed by people of all ages and physical abilities.	Still active, although less so now

Initiative name	Summary	Key partners/project status
	• Be open and evident to visitors to the Locality as well as inhabitants	
Various local level, site specific greenspace initiatives	These include sites being delivered and managed in partnership by parish councils collaborating with others, such as the Leddy's Field Support Group working with the local parish council and Staffordshire Wildlife Trust. Also sites being delivered as part of the Keele University estate, such as Keele Campus Woods. Others also include community action groups such as Save Our Greenspace. Stakeholders also identified various local groups working to either deliver greenspace or activities and programming within it, which make an important contribution, including Groundwork West Midlands, Campaign for Protection of Rural England (CPRE), John Wedgwood Memorial Group, active branches of the Ramblers Association and local sports, archery and angling clubs, plus Forest School initiatives and steering groups for various historic sites.	Active

Structure of this report

1.14 The remainder of this report is structured as follows:

- Chapter 2: Policy context for open space and green / blue infrastructure.
- Chapter 3: Summary methodology (full methodology contained in Appendix 1).

Part 1: The Open Space Strategy for Newcastle-under-Lyme Borough

- Chapter 4: Current open space provision
- Chapter 5: Proposed open space standards
- Chapter 6: Open space strategy and recommendations

Part 2: The Green Infrastructure Strategy for Newcastle-under-Lyme Borough

- Chapter 7: The green infrastructure resource of Newcastle-under-Lyme
- Chapter 8: Green infrastructure needs and opportunity assessment

- Chapter 9: A green infrastructure vision and strategy for Newcastle-under-Lyme
- Chapter 10: Green infrastructure project delivery

Summary and conclusions

- Chapter 11: Summary and conclusions

References

Appendices (Separate volume)

2 POLICY CONTEXT FOR OPEN SPACE AND GREEN / BLUE INFRASTRUCTURE

2.1 Underpinning the project is the need to develop a strategy that is national policy compliant, demonstrates resilience and innovation in responding to the climate emergency that has been declared by the Council, and addresses the inequalities in accessing green infrastructure (GI) and open space (OS) across the Borough This strategy analyses what the functional needs are, in terms of GI/OS, and proposes recommendations that ultimately meet current open space standards, promote ecosystem services, and informs Newcastle-under-Lyme's new Local Plan.

2.2 At the time of writing, when making decisions on development proposals, NULBC has no up to date local policy on GI/OS. As the NPPF provides a framework within which locally-prepared plans for housing and other development can be produced, in addition to other international and national policy and legislation, NULBC is committed to delivering planning for GI/OS in-line with these guidelines.

2.3 GI is defined within the NPPF as 'a network of multi-functional green space, urban and rural, which is capable of delivering a wide range of environmental and quality of life benefits for local communities'. In addition, OS is defined within the NPPF as 'all open space of public value, including not just land, but also areas of water (such as rivers, canals, lakes and reservoirs) which offer important opportunities for sport and recreation and can act as a visual amenity'. As such, OS can take many forms, from formal sports pitches to open areas within a development, linear corridors and country parks. It can provide health and recreation benefits to people living and working nearby; have an ecological value and contribute to green infrastructure. The term 'blue infrastructure' is also often used in relation to aquatic, coastal and riverine environments, although green infrastructure is effectively an all-encompassing term which includes both green and blue aspects. This is the way in which the term has been used in this Strategy.

2.4 The Council has now adopted a single plan approach to reviewing its Local Plan, in contrast to the Joint Local Plan with Stoke-on-Trent, therefore, the new GI/OS policy should directly reflect the modern functional needs of the environment and people in the Borough.

2.5 The remaining parts of this section set out current and relevant policy within the policy hierarchy; international, national, county and local. Legislation and international agreements offer guidance from a high-level perspective which will help to form recommendations. The county and local sections specifically focus on adopted and relevant policy within NULBC and Staffordshire followed by a 'benchmarking' analysis of the current and relevant policy in adjacent Boroughs and counties that could both inform the recommendations and deliver an effective Borough approach.

Policy context: International

2.6 It is important to firstly take a high-level approach to understand the broader sustainability concepts and current international goals that may influence the lower-level provision of GI and OS. This section therefore sets out international goals and commitments below.

COP26, 2021:

2.7 The 26th United Nations (UN) Climate Change Conference of the Parties (COP26) was hosted in Glasgow from 31st October-15th November 2021. The objective of this summit was to bring the parties together to secure agreements on accelerating action on achieving the goals of the Paris Agreement and the UN Framework Convention on Climate Change[5]. Decisions made by the parties at COP26 fell under the three UN climate treaties, specifically the UN Framework Convention on Climate Change, the Kyoto Protocol and the Paris Agreement.

2.8 The Glasgow Climate Pact set out a series of over-arching principles underpinning the decisions reached, including the central importance of a sustainable recovery from the Covid-19 pandemic and solidarity with vulnerable parties in global efforts to tackle climate change.

2.9 The pact also re-affirmed the continuation of key principles from the Paris Agreement and previous COPs. These included including multilateralism, the importance of nature and biodiversity to climate action, and human rights, the rights of indigenous peoples, local communities, migrants, children, persons with disabilities and vulnerable people, plus gender equality, empowerment of women and intergenerational equity.

2.10 The pact also:

- Sought to embed science and evidence in the decision-making process;
- Sought to strengthen action on climate adaptation and resilience;
- Made a call for "developed country Parties to at least double their collective provision of climate finance for adaptation to developing country Parties from 2019 levels by 2025"; and
- Made a stronger commitment to keep global temperature rises below 1.5 degrees Celsius, with greater acknowledgement of the latest science in this respect. This commitment included a 'phase down of unabated coal power' and 'inefficient fossil fuel subsidies' as well as achieving 'mid-century net zero'.

2.11 The fundamental importance of nature in achieving the Paris Agreement was also re-affirmed at COP26, as was greater collaboration in achieving agreements made, and financing and capacity building to secure climate change adaptation.

United Nations Sustainable Development Goals (SDGs), 2015:

2.12 These set out a number of objectives that the provision of GI and OS can directly and indirectly contribute to:

- Goal 3 - Ensure healthy lives and promote well-being for all at all ages. Having good access to GI/OS networks is understood to have a positive impact on people's physical health as it encourages people to use outdoor spaces in their community. This is likely to improve their mental health due to increased exposure to exercise which will ultimately promote well-being within communities.

[5] https://ukcop26.org/

- Goal 11 - Make cities and human settlements inclusive, safe, resilient and sustainable. As towns such as Newcastle-under-Lyme grow and become more populated, this urban settlement should seek out opportunities to innovate modern methods that are both fit for the community and will provide resilience against global processes like climate change.
- Goal 15 - Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss. For the purpose of this study, using terrestrial ecosystems and preventing biodiversity loss is a priority. The geography of NUL suggests that a new strategy would have the most positive impact on these two aspects of Goal 15 due to the capacity for GI/OS to maintain and re-establish native species.

The Paris Agreement (United Nations, 2015):

2.13 The Paris agreement is a legally binding international treaty on climate change which was adopted by 196 parties. Its goal is to limit global warming to well below 2 degrees celsius, preferably to 1.5 degrees Celsius. Article 2 sets out the aims to strengthen the global response to the threat of climate change, in the context of sustainable development. This includes smaller objectives such as holding the increase in the global average temperature, increasing our adaptability to the adverse impacts of climate change, and making investments that support climate-resilient development. Although this commitment is broad, a strategy at Borough level can directly support this. For example, innovative GI/OS networks can reduce flood risk (a known adverse impact of global warming) through higher infiltration capacity and investing more money into GI networks within new developments could be encouraged across the Borough.

National

2.14 The next level down in the policy hierarchy concerns national policy, legislation and commitments such as the National Planning Policy Framework (NPPF) and the Climate Change Act. This section summarises the key aims that Borough-level GI/OS provision can help achieve.

The Environment Act 2021

2.15 The Environment Act places the ambitions of the 25 Year Environment Plan on a statutory footing, by creating a new governance framework for the environment, to ensure a 'cleaner, greener and more resilient country for the next generation' as the UK leaves the EU. The provisions made in the Act require biodiversity net gains (BNG) to be demonstrated in new developments, with the Biodiversity Metric to be used when assessing planning applications. There is also a provision for off-site provision of biodiversity enhancements. This could provide additional funding for Green Infrastructure (GI) improvements in the local area. Additionally, the Act supports the establishment of 'Nature Recovery Strategies' and confers a duty on Local Planning Authorities to have regard to relevant Local Nature Recovery Strategies. The Act also give communities a greater say in local tree protection.

Planning for the Future White Paper (2020)

2.16 Planning for the Future sets out how the planning process should be streamlined in a way that places land into three categories, as seen below:

- growth areas "suitable for substantial development".
- renewal areas "suitable for some development"; and
- protected areas - which would (according to the White Paper) halve the time to acquire planning permission on larger sites identified in plans.

2.17 The White Paper states that assessing the extent to which our planning policies and processes for managing flood risk may need to be strengthened along with developing a national framework of green infrastructure standards. In addition, the paper states that increased local authority flexibility is an option, allowing them to spend receipts on their policy priorities, once core infrastructure obligations have been met. In addition to the provision of local infrastructure, including parks, open spaces, street trees and delivery or enhancement of community facilities, this could include improving services or reducing council tax.

National Planning Policy Framework (2021, as amended)

2.18 In January 2021, a consultation on the updated draft NPPF was conducted. The updated version of the NPPF was published in July 2021. It should be noted that whilst the definition for OS has not changed in the new edition of the NPPF, the definition for GI has been updated to:

A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity and quality of life benefits for local communities.

2.19 Below are the national policies that are relevant to this study and could inform the policy recommendations made. This will ultimately make them the most up-to-date and NPPF compliant.

2.20 Paragraph 20 states that strategic policies should set out an overall strategy for the pattern, scale and quality of development, and make sufficient provision for landscape and green infrastructure. Therefore, as NUL's strategic policies are out of date with the most current version of the NPPF, a new strategy would not only be more compliant with the NPPF but would concern GI/OS provision more so that the adopted strategic policies.

2.21 Paragraph 92 sets out that planning policies and decisions should aim to achieve healthy, inclusive and safe places and support healthy lifestyles, especially where there are local health and well-being needs e.g. through safe and accessible GI. This exemplifies that there is a direct link and should considered a priority when devising a new strategy. Paragraph 93 goes on further to include that planning policies should plan positively for the provision of open space to enhance the sustainability of communities and residential environments.

2.22 Access to a network of high quality open spaces and opportunities for sport and physical activity is important for the health and well-being of communities, and can deliver wider benefits for nature and support efforts to address climate change.. Planning policies should be based on robust and up-to-date assessments of the need for open space, sport

and recreation facilities (including quantitative or qualitative deficits or surpluses) and opportunities for new provision (Paragraph 98).

2.23 There is a general presumption against development on existing open space and land including playing fields unless they are, surplus to requirement, their loss would result in equivalent or better provision the development is for alternative sports and recreational, where the benefits outweigh the loss of current or former uses (Paragraph 99). The policy then states the specific circumstances or exemptions to this policy, notably where or if:

a) an assessment has been undertaken which has clearly shown the open space, buildings or land to be surplus to requirements; or

b) the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of quantity and quality in a suitable location; or

c) the development is for alternative sports and recreational provision, the benefits of which clearly outweigh the loss of the current or former use.

2.24 Designating land as Local Green Space should be consistent with the local planning of sustainable development and complement investment in sufficient homes, jobs and other essential services. Local Green Spaces should only be designated when a plan is prepared or updated, and they should be capable of enduring beyond the end of the plan period (paragraph 101).

2.25 Under paragraph 102, a Local Green Space should only be designated where:

- reasonably close proximity to the community it serves.
- demonstrably special to a local community and holds particular local significance; and
- local in character and is not an extensive tract of land.

2.26 Policies for managing development within a Local Green Space should be consistent with those for Green Belts (paragraph 103).

2.27 Paragraph 149 regards the construction of new buildings as inappropriate in the Green Belt. Exceptions to this, relevant to the report, is part b) the provision of appropriate facilities (in connection with the existing use of land or a change of use) for outdoor sport, outdoor recreation, cemeteries and burial grounds and allotments as long as the facilities preserve the openness of the Green Belt and do not conflict with the purposes of including land within it.

2.28 Additionally, paragraph 150 sets out that certain other forms of development are also not inappropriate within the Green Belt provided they preserve its openness and do not conflict with the purposes of including land within it. Relevant to this report is part e), which includes material changes in the use of land (such as changes of use for outdoor sport or recreation, or for cemeteries and burial grounds).

2.29 Paragraph 154 states that new development should be planned for in ways that avoid increased vulnerability to climate change impacts. Suitable adaptation measures, including through GI planning, are an effective method of avoiding increased vulnerability across the Borough.

2.30 Paragraph 175 states that plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least

environmental or amenity value, where consistent with other policies in this Framework; take a strategic approach to maintaining and enhancing networks of habitats and GI. Therefore, this study has an important role in informing NUL's new Local Plan as it should offer clarity about where GI networks can or cannot be strengthened in relation to new development sites.

2.31 Paragraph 186 sets out that opportunities to improve air quality or mitigate impacts should be identified, such as through traffic and travel management, and green infrastructure provision and enhancement. GI can be seen as directly reducing the increase in emissions and improving air quality across the Borough, which in turn will be compliant with the NPPF.

National Planning Practice Guidance (2014):

2.32 Open space, sports and recreation facilities, public rights of way and local green space (2014) states that Open space should be taken into account in planning for new development and considering proposals that may affect existing open space. The NPPG provides useful guidance, in addition to the policies set out in the NPPF, which can streamline NULBC's decision-making process. If this NPPG is used to form the new GI strategy for the Borough, then more solutions will be found concerning GI/OS provision/protection.

Build Back Greener (BBG):

2.33 BBG initiative is a £3billion spending package and looks at some of the initiatives we can use to support economic regrowth post-Covid-19. One of the key initiatives is 'A Greener Future' which sets out that, as a country, we should make more sustainable use of the world's resources but specifies that old and new infrastructure is at the forefront. Therefore, as the initiative becomes clearer, NUL can devise a strategy that is sensitive to the Borough's current natural environment but make improvements using new innovative developments.

25 Year Environment Plan, 2018

2.34 The 25 Year Environment Plan was published in 2018 and sets out the Government's support for habitat creation, multi-functional sustainable urban drainage systems (SuDS), and natural spaces close to where people live and work. The Plan adopts a long terms approach towards making positive impacts on people's lives and the environment. Therefore, the planning system is a key driver in delivering the ambitions set out in the Plan, firstly by helping to provide an 'environmental net gain' into development proposals.

Climate Change Act, 2008:

2.35 An update in April 2021 set out a new goal to reduce emissions by 78% by 2035 compared to 1990 levels. As the Act has committed the UK to reducing its greenhouse gas emissions by 80 per cent by 2050, local government should see this as a commitment to helping the national effort in the years up to 2050. Moreover, Boroughs such as NUL will, over a Local Plan period, continue to monitor their contributions to meeting national carbon targets so should make specific GI/OS improvements that will not surpass carbon budgets.

County

2.36 It is important to identify whether at the county level there is an overarching strategy for the management of Green Infrastructure and Open Space. The note also takes into consideration the planning strategies for GI/OS in adjacent counties since this can provide a benchmark for effectiveness of potential policies for NUL. Another reason for looking at the county-wide approach is that GI can be delivered across-boundaries because the natural environment does not always conform to administrative boundaries.

Staffordshire:

2.37 NUL lies within this county and currently there are no county-wide policy documents from the County Council setting out a GI strategy.

2.38 There is however a report named AECOM Climate Change Adaptation and Mitigation (2020) Staffordshire County Council - Carbon Sequestration & Natural Capital. This sets out that there are opportunities to: Increase sequestration on Council-owned land (e.g. areas of greenspace including parks and gardens; linear parcels and green infrastructure such as verges and green spaces alongside roads; and the 'greening' of grey infrastructure in urban settings). This report also outlines a good design approach for visualising improvements across the county.

2.39 In addition, AECOM Staffordshire and Stoke-on-Trent Strategic Infrastructure Plan (2018-2038) is a useful document but ultimately highlights GI as having a high project cost (£500m) and very large funding gap, therefore this is something to consider during the study to ensure GI projects are scale-able, deliverable and within budget.

2.40 Although the purpose of the study is not to devise a county-wide approach, an appreciation of the key environmental assets and policy approaches in adjacent counties may indicate areas for opportunity in the borders of the Borough:

Cheshire East:

2.41 Cheshire East is a Unitary Authority that borders NUL. Cheshire East Local Plan 2010-2030 (adopted 2017) frequently mentioned GI/OS but has specific policies which outline their approach. There is no specific policy for open space in the Local Plan Strategy (LPS). The LPS contains the following policies:

2.42 **Policy SE 6 - Green Infrastructure,** which is an overarching GI policy for the Council and it states that Cheshire East aims to deliver a good quality, and accessible network of green spaces for people to enjoy, providing for healthy recreation and biodiversity and continuing to provide a range of social, economic and health benefits.

2.43 **Policy IN 2 - Developer Contributions**, which states that developer contributions will be sought to make sure that the necessary physical, social, public realm, economic and green infrastructure is in place to deliver development.

2.44 Developer contributions in the form of s106 agreements could therefore be a key addition to the strategy to ensure good supporting infrastructure is provided as part of new residential development in particular.

Shropshire:

2.45 Shropshire have an adopted county-wide Core Strategy 2006-2026 (adopted 2011) but this pre-dates the NPPF. There are no specific policies for GI or OS but the terms are mentioned throughout as being contributory to Core Strategy objectives. Although not policies the key characteristics and issues (environment) section confirms that major green infrastructure assets are noted and include the River Severn, Attingham Park, Haughmond Hill, former Shrewsbury and Newport canal. Identifying existing and potentially new key GI/OS assets within NUL will be essential to the overall report.

2.46 While the Shrewsbury & Atcham Borough Council Green Infrastructure Strategy (Draft) (2008) and the Shropshire Open Space, Sport Recreation Study (Draft) (2009) provide key evidence, the lack of NPPF compliant policy means it is difficult to the links between the evidence and policy recommendations.

Worcestershire:

2.47 Worcestershire firstly has a Green Infrastructure Strategy 2013-2018. This county has a Green Infrastructure partnership which operates as a multi-disciplinary partnership of statutory agencies, voluntary organisations, local Borough councils and the county council, therefore, this concept could be drawn upon to focus on delivering the best approach for GI planning in the Borough if NUL have existing partnerships with key stakeholders and sufficient resources.

2.48 Furthermore, Worcestershire has a Planning for Climate Change Research Paper (2008). Within 'Issues to Consider in Planning' GI is mentioned explicitly in '8. Sustainable Built and Historic Environment' and in '11. Health and Wellbeing'. GI is a key aspect within 'Adaptation and Mitigation' section and in Appendix 4: Topic – Biodiversity and Landscape.

Overview:

2.49 The findings show that Staffordshire does not have a clear County-wide Strategy that would facilitate a consistent cross-boundary policy approach towards planning for GI, but evidence from AECOM in two reports outline the County's adaptation and mitigation against climate change impacts and the strategic infrastructure plan in which GI represents a large funding gap. As there is a large funding gap between what is needed in the county and what money is available to meet the needs developer contributions could be sought to support GI/OS.

2.50 Of the adjacent counties reviewed above, Worcestershire from 2013-2018 used a Green Infrastructure Partnership approach, which could be somewhat replicated by NUL as support mechanism to deliver effective GI/OS.

2.51 The unitary authority Cheshire East has adopted an overarching GI policy (Policy SE6), albeit under Local Plan review, which displays a clear approach as well as adopting policy (Policy IN2) that ensures Developers commit to providing that the necessary physical, social, public realm, economic and green infrastructure is in place to deliver development.

Local

2.52 As this work will devise a local level strategy, it is therefore important to look at the existing approach to GI/OS within NUL and Local Planning Authorities within close proximity. This understanding can provide a benchmark for which aspects can be replicated or discounted in NUL.

Newcastle-under-Lyme:

2.53 Newcastle-under-Lyme has a number of adopted policies from 2003 which became saved policies in 2007. Green infrastructure was not a widely recognised term in 2003, so it does not appear in these policies, but some policies refer to open spaces, as cited below:

2.54 Policy C2: Retention of Allotment Gardens states that the Council will not approve the redevelopment of allotment gardens unless an equally acceptable site is available unless existing facilities are under-used. Allotments would be acceptably redeveloped only for recreation, sport or nature conservation unless the local area will not be under-provided for in terms of open space.

2.55 Policy C3: Publicly accessible open space, Poolfields, Newcastle states that an area of about 19 hectares of land at Poolfields is allocated as publicly accessible open space. It is the Council's policy to protect the visual continuity of the open land along the line of the Silverdale Brook, to endeavour to secure public access and to encourage nature conservation. The Council will resist any development on the site that would harm the open rural character and visual amenities of the area and any neighbouring development that would result in the site deteriorating.

2.56 Policy C4: Open space in new housing area states that appropriate amounts of publicly accessible open space must be provided in areas of new housing and maintained. On sites with ten or more dwellings, or at least 0.4 hectares with fewer dwellings, taking a gross figure for all contiguous development areas, developers will be expected to provide for open space.

2.57 Policy N16: Protection of a green heritage network states that the Council should seek opportunities to enhance the green heritage network. Planning permission will not be granted for development in or adjacent to 'green heritage' areas which would harm their integrity or their ecological and landscape value as open spaces. Where development is permitted, the Council may require mitigation and/or compensation measures and landscaping proposals will be implemented and maintained. The 'green heritage' network comprises the following sites:

- Poolfields.
- Lower Apedale.
- Wolstanton Golf Course.
- Kidswood.
- Birchen Wood.
- Wolstanton Marsh.
- Melvyn Crescent (rear of Hillport House).
- Hoon Avenue.

- Bradwell Wood western spur.
- Walk/cycleway from Newcastle to Lymedale and Silverdale.
- Walkway from Silverdale Road to Lyme Valley; and
- Walk/cycleway (former Potteries Loopline) from City through Birchenwood to Kidsgrove centre.

2.58 Policy S3: Development in the Green Belt is not strictly in accordance with the NPPF, however part vi) is of particular relevance to this study because it has similarities to paragraph 145 and 146 of the NPPF. It states that development for sport or recreation uses of a predominantly open character or for other uses of land that preserve the openness of the area, may be located in the Green Belt so long as it does not disrupt viable farm holdings. The Policy guides development to use reclaimed or low grade agricultural land. Furthermore, buildings must be limited to those essential and sited to minimise their impact on the openness of the Green Belt.

2.59 NUL's Core Spatial Strategy 2006-2026 (adopted 2009) (Joint Local Plan with Stoke-on-Trent) contains no mention of 'GI' as it is pre-NPPF but mentions 'open green space'. There is no specific Green Belt policy in the Core Strategy. However, paragraph 5.211 states any development within the North Staffordshire Green Belt will be in accordance with policies set out in national planning policy - Planning Policy Guidance 2 [now replaced by NPPF] and local development plan policy.

2.60 Firstly, Policy SP3 Spatial Principles of Movement and Access is set out. Heading 1 states that improving accessibility and social inclusion through providing for a compact sub region of sustainable linked communities, which have a range of services and facilities, and which are well connected to major employment and service centres and the network of green open space.

2.61 Also, Policy CSP5 - Open Space/Sport/Recreation states that the plan area's open space, sports and leisure assets will be enhanced, maintained and protected through the following measures:

- Ensuring that all new residential development will be linked to existing and new open spaces and sport and recreation facilities through a series of well-defined safe routes/streets, incorporating pedestrian friendly routes and cycle ways; and
- Ensuring that the plan area's network of open spaces, sports and leisure assets are interlinked and accessible to all, secure, and provide quality leisure and amenity facilities.

2.62 Although the above policies out of date, they are a good starting point to build OS policy recommendations from due to the inclusion of key terms and relationships between principles of movement and access.

2.63 NUL Open Space and Green Infrastructure Strategies (2017): At the time of its publication, the previous OS Strategy was a review and future guide to how the Borough Council manages its open space asset base to ensure that the needs of the community are met in the most appropriate way. Running parallel, the GI Strategy was the guide to planning and implementation of Green Infrastructure across the Borough. The OS Strategy review conforms to meeting the requirements of the National Planning Policy Framework (NPPF, 2012) and Planning Practice Guidance (DCLG, 2014), as does the GI Strategy by stating it was an assessment of existing and potential GI in line with the

NPPF. The NPPF highlights the importance of maintaining and enhancing public rights of way and access by linking existing networks, planning for biodiversity and ensuring that local ecological networks are considered within planning policy of NUL. The GI executive summary sets out a range of GI objectives for the Borough which can help guide the policy recommendations of this study, but the OS executive summary does not set out objectives.

2.64 Furthermore, NUL declared a Climate Emergency (April 2019) which set out the aim of making 'Newcastle under Lyme a carbon-neutral borough by 2030.' This new strategy has the potential to provide recommendations which can be set out in policy to ultimately contribute towards meeting this aim.

Stoke-on-Trent

2.65 There are no saved policies for Stoke-on-Trent City Council and the relevant policies regarding GI and OS have been set out in the section above.

2.66 Stoke-on-Trent Green Space Strategy report (2018) provides an extensive analysis using mapping/data analysis approach. The strategy incorporates:

- An assessment of local needs for green space.
- An audit of existing green space provision.
- New local standards for future green space provision; and
- Recommendations for prioritising the planning and management of green spaces.

2.67 It also has a typology of green spaces to divide the spaces into distinguishable types (pp. 11) and is the strategy is specifically associated with NUL in addressing provision and need at the Borough level so would offer recommendations that this strategy can build on.

Staffordshire Moorlands:

2.68 Staffordshire Moorlands Local Plan 2014-2033 (adopted September 2020) has an overarching GI policy, Policy C3 Green Infrastructure that is recently adopted. This sets out that the Council will, through partnership working with local communities, organisations, landowners and developers, develop an integrated network of high quality and multi-functional green infrastructure that will meet a range of criteria, and GI assets will be identified, protected and enhanced through the GI Strategy. The evidence base for Staffordshire Moorlands Local Plan consists of the Green Infrastructure Strategy (2017), Open Space Update Report and Standards Paper (2017), and Playing Pitch Strategy (2017), therefore, this could be an appropriate model for NUL to use by setting out an overarching GI policy.

East Staffordshire:

2.69 East Staffordshire Local Plan 2012-2031 (adopted October 2015) has an overarching policy for GI 'STRATEGIC POLICY 23 Green Infrastructure', which states that Major and Minor Green Infrastructure (GI) corridors throughout the Borough, identified in the East Staffordshire Green Infrastructure Study (2013), connect locations of natural heritage, green space, biodiversity or other environmental interest. Development should contribute towards the creation, enhancement or ongoing management of a series of local GI

corridors linking with the Major and Minor GI corridors. In turn, these local GI corridors should be connected through green infrastructure into site-level networks and green spaces. Priorities for the creation or enhancement of green infrastructure are those areas where net gains in the range of functions can be improved, particularly those that:

- improve walking and cycling access to and from the urban core and/or rural service centres and where possible improve the wider network; and/or
- help to remedy local deficiencies in open space provision and equality; and/or
- result in the creation, protection and enhancement of biodiversity habitats; and/or
- support the safeguarding of ecological networks, including the restoration and creation of new habitats through the opportunities provided within the Centre Rivers Initiative; and
- safeguard and enhance heritage assets.

2.70 East Staffordshire GI Study (2013) is a key evidence-based document for the Local Plan and includes the standards for STRATEGIC POLICY 23 of the Local Plan. This displays a useful approach to analysis of data and devising a strategy for improvement, while East Staffordshire Open Space Standards Study Paper 2018 also provides a good assessment of an appropriate approach and the purpose of assessment.

2.71 Similar to Staffordshire Moorlands, an overarching GI policy evidenced with a GI Study and OS Standards Study Paper appears to be the effective and supported by evidence-based studies in line with national requirements.

South Staffordshire:

2.72 South Staffordshire Local Plan (adopted 2012) again has an overarching GI policy, HWB2: Green Infrastructure. The policy states that the Council will support the protection, maintenance and enhancement of a network of open space, natural and semi-natural greenspace in South Staffordshire and cross boundary links. The Council will support proposals to improve and expand the key components of this green infrastructure network including the enhancement of green corridors such as disused railway lines and native woodlands. The Council will support the enhancement of blue corridors such as canals, rivers, and other watercourses and maintain undeveloped buffer zones along the banks of watercourses. Proposals to enhance the biodiversity value of the green infrastructure network providing opportunities for habitat creation and linkages will also be supported. The network of green infrastructure should provide safe, accessible, high quality links between recreational areas and facilities, residential, leisure and commercial areas and also provide cross boundary links as well as access to the wider countryside. Such links should provide for walking, cycling and horse riding.

2.73 The key evidence-based documents supporting this Local Plan include the Open Space Strategy 2014-2028, Forest Of Mercia, Cannock Chase AONB Management Plan (2019), Staffordshire Biodiversity Action Plan (1998) and the West Midlands Green Infrastructure Prospectus (2010).

2.74 As seen above, this suggests that an overarching GI Policy supported with a range of evidence-based documents is a good approach at the Borough level and should inform the policy recommendations for NUL.

Stafford Borough:

2.75 Stafford Borough Local Plan 2011-2031 (adopted June 2014) contains a number of policies regarding GI and OS The Borough firstly has overarching GI and OS policies but the terms are mentioned frequently in area-based policies (e.g. Stafford Town and North of Stafford).

2.76 The relevant policies in the Local Plan are as follows:

2.77 Policy N4 The Natural Environment & Green Infrastructure states that The Borough's natural environment will be protected, enhanced and improved by implementation of the Staffordshire Biodiversity Action Plan, the Stafford Borough Green Infrastructure Strategy and guidance including 'Biodiversity by Design' or any other successor documents to increase and enhance biodiversity, in terms of habitats and species as well as geological conservation or geodiversity through appropriate management.

2.78 Policy C7 Open Space, Sport and Recreation states that Support will be given to sport and recreation by:

- Retaining, protecting, supplementing, or enhancing all types of sport, recreation and open space facilities, in order to address deficiencies of both indoor and outdoor facilities outlined in the Open Space, Sport & Recreation Assessment and any subsequent revisions.
- Encouraging additional provision, and enhancements to existing provision, which will reduce or prevent deficiencies, and requiring new housing development to contribute to provision, to help meet the Local Standards set out in Appendix G; and
- Implementing specific open space proposals detailed in the area based policies.

2.79 Policy Stafford 1 Stafford Town states the 'provision of new Green Infrastructure (GI) for Stafford Town at Stafford Common and west of Wildwood Park together with local areas schemes that respond to the characteristics, local needs and opportunities for improved GI provision and biodiversity assets of the town. Increasing and improving the provision of open space, sport and recreation facilities through new green infrastructure and by addressing specific qualitative and quantitative deficiencies.'

2.80 Policy Stafford 2 North of Stafford (along with West Stafford and East Stafford policies) states that it is preferable for existing hedgerows and tree lines to be retained and enhanced to support the provision of a network of green infrastructure including wetlands and water corridors, play areas, green corridors allowing wildlife movement and access to open space.

2.81 Staffordshire Biodiversity Action Plan (1998), the Stafford Borough Green Infrastructure Strategy (2009) and Stafford Borough Open Space, Sport & Recreation Assessment (2013) appear to be the key evidence-based documents. The above may indicate that a town centre GI policy is useful for ensuring there are opportunities for protecting/enhancing GI networks in the more urban areas of a Borough and not just the suburban areas.

Cannock Chase:

2.82 Cannock Chase Local Plan Part 1 (adopted 2014) have a number of GI/OS policies but will soon be replaced with the Local Plan review. The following policies give particular regard to GI/OS:

2.83 Policy CP12 - Biodiversity and Geodiversity states that the District's biodiversity and geodiversity assets will be protected, conserved and enhanced via (among other ways) support for the protection, conservation and enhancement of existing green infrastructure to facilitate robust wildlife habitats and corridors at a local and regional scale.

2.84 Policy CP14 - Landscape Character and Cannock Chase Area of Outstanding Natural Beauty (AONB) states that the District's landscape character will be protected, conserved and enhanced via (among other ways) the consideration of landscape character in all development proposals in order to protect and conserve locally distinctive qualities, rural openness and sense of place. It also seeks to maximise opportunities for restoring, strengthening and enhancing distinctive landscape features including trees, woodland, canal corridors, sensitive edges of the rural areas and creating green infrastructure links in conjunction with new development.

2.85 Policy CP3 - Chase Shaping - Design states that opportunities for the enhancement of town and local centres and other public open space will be maximised including designing out crime and antisocial behaviour.

2.86 Policy CP5 - Social Inclusion and Healthy Living states that the Council will work with public, private and third sector partners to ensure that appropriate levels of infrastructure are provided to support social inclusion and healthy living in the District. One of the key elements is parks, open spaces and woodlands, play areas and allotment facilities.

2.87 The above policies are supported by the evidence-base which includes the Green Infrastructure Assessment (2012) and the Cannock Chase AONB Management Plan (2019) and the PPG17 Open Space, Sport and Recreation Facilities Audit Facilities Audit (2009). Although these documents will be out of date with the Local Plan review, the structure of the evidence base is useful for making policy recommendations.

Lichfield:

2.88 Lichfield Local Plan 2008-2029 (adopted 2015) sets out no overarching GI policy but mentions GI and OS in the following policies:

- Core Policy 10: Healthy & Safe Lifestyles.
- Policy NR6: Linked Habitat Corridors & Multi-functional Greenspaces.
- Policy Lichfield 1: Lichfield Environment.
- Policy Lichfield 5: East of Lichfield (Streethay).
- Policy Lichfield 6: South of Lichfield; and
- Policy HSC1: Open Space Standards

2.89 The evidence base consists of an Open Space Assessment (2013). This document and policies suggest that a range of policies should be adopted to contribute towards the delivery of more GI and OS. Although having no overarching GI policy is a less direct policy recommendation, having a selection of policies such as this may be effective if NUL was to use this approach.

Tamworth:

2.90 Tamworth Borough Local Plan 2006-2031 (adopted 2016) sets out no overarching GI policy but is set out among open space and blue infrastructure within Policy EN3 Open Space and Green and Blue Links. The policy states that Open space should be multi-functional and contribute to a range of objectives including increasing biodiversity, connecting habitats, healthy living, leisure and tourism, enhancing landscape character and helping to mitigate climate change.

2.91 Importantly, key evidence that informs these policies comes from the Central Rivers Initiative and Tame Valley Wetlands Partnership (2008), meaning that for Tamworth the LPA took a wider strategic approach to green infrastructure across a number of neighbouring local authority areas. Although the policy is broad, the policy was found to be sound and in line with the NPPF, therefore this is an alternative method of wording GI and OS policy within a more strategic approach.

Overview:

2.92 The findings show that NUL GI policy is out of date because the NUL policy covering only OS was adopted in 2003 (saved in 2007) and the most recent Core Strategy covering GI and OS (with Stoke-on-Trent) was adopted in 2009. Nonetheless, the saved NUL policies and the Core Strategy aim to ensure GI and OS networks are enhanced and protected when determining applications but now, adopting up-to-date policies that are compliant with the newest national policy, and supported with evidence-based documents, is the key objective for NUL.

2.93 The changes in the planning landscape since the production of the 2017 Open Space and Green Infrastructure Strategy and matters such as the Council's declaration of a climate emergency demonstrates the need for an updated GI policy approach.

2.94 Adjacent to NUL are a number of LAs including Stoke-on-Trent, Staffordshire Moorlands, East Staffordshire, South Staffordshire and Stafford who adopted overarching GI policy and have used strategies, reports and studies as the evidence base for these, which could serve as a useful model for NUL.

Neighbourhood Plans

2.95 Audley Neighbourhood Plan area was designated in November 2020 but has not been made yet.

2.96 Betley, Balterley and Wrinehill Neighbourhood Plan area was designated in June 2016 and the plan proposal was published for a six week period from 19th April 2021 to 31 May 2021 for representations. The Neighbourhood Plan, covering the period from 2022-2037, went to Public Referendum on 16th December 2021, with the Final Made Plan published in January 2022. Key policies of the Plan of relevance to this Strategy are:

- Policy BBW1: Promoting Sustainable Development, which requires among others for built development to incorporate high quality sustainable, energy efficient and water efficient design, to conserve and enhance intrinsic landscape and built character, respond positively to this siting and design, contribute to Biodiversity Net Gain (BNG), and retain and enhance river habitats, seeking opportunities to enhance green and blue infrastructure connectivity;

- Policy BBW6: Recognising the Intrinsic Character of the Countryside and Protecting and Enhancing Valued Landscapes: This states, inter alia, the importance of development proposals recognising the intrinsic character of the countryside and the historic built form of the settlements, and using landscape and landscape elements to guide development siting and design; and
- Policy BBW10: Recreation and Open Space Facilities: This requires, among other things, that where development results in the loss of open space facilities, that assessments are undertaken showing that the existing facility is surplus to requirements, and for new development to contribute to enhancement of existing, and provision of new, facilities.

2.97 Chapel and Hill Chorlton, Maer and Aston and Whitmore Neighbourhood Plan was made in October 2019. The plan designates twenty three areas as Local Green Spaces (Policy COM2: Designation of Local Green Spaces) and mentions GI/OS when justifying their importance but there are no policies that contain GI/OS. The Local Green Space descriptions can be seen in Appendix 1 of the neighbourhood plan document. Other strategic policies in the Plan of relevance to this Strategy include Policy NE1: Natural Environment. This seeks, inter alia, to protect the neighbourhood area's rich and valued network of natural and historic environment, landscape and biodiversity assets.

2.98 Keele Neighbourhood Plan area was designated in July 2016 but has not been made yet.

2.99 Kidsgrove Neighbourhood Plan area was designated in September 2019 but has not been made yet.

2.100 Loggerheads Neighbourhood Plan 2013-2033 was made in February 2019. Policy LNPP1: Urban Design and Environment states that new development must demonstrate high standards of design, which includes:

- creating a strong green infrastructure buffer on the interface between urban and rural to buffer surrounding landscape from development; and
- designing open spaces to be safe, attractive and functional as an integral part of layout.

2.101 Furthermore policy LNPP2: Local Character and Heritages requires new development to complement and reinforce local character and non-designated heritage, setting out a number of considerations relevant to specific settlements within the neighbourhood area.

2.102 Policy LNPP3 within the Plan is concerned with Local Green Space, designating eight areas as Local Green Space, where new development is ruled out other than in very special circumstances, consistent with Green Belt policy.

2.103 Madeley Neighbourhood Plan area was designated in May 2017 and had recently undergone Examination at the time of writing. The Examiner subsequently issued a report under Regulation 18 recommending that the Plan proceed to Public Referendum, although this is yet to occur at the time of writing.

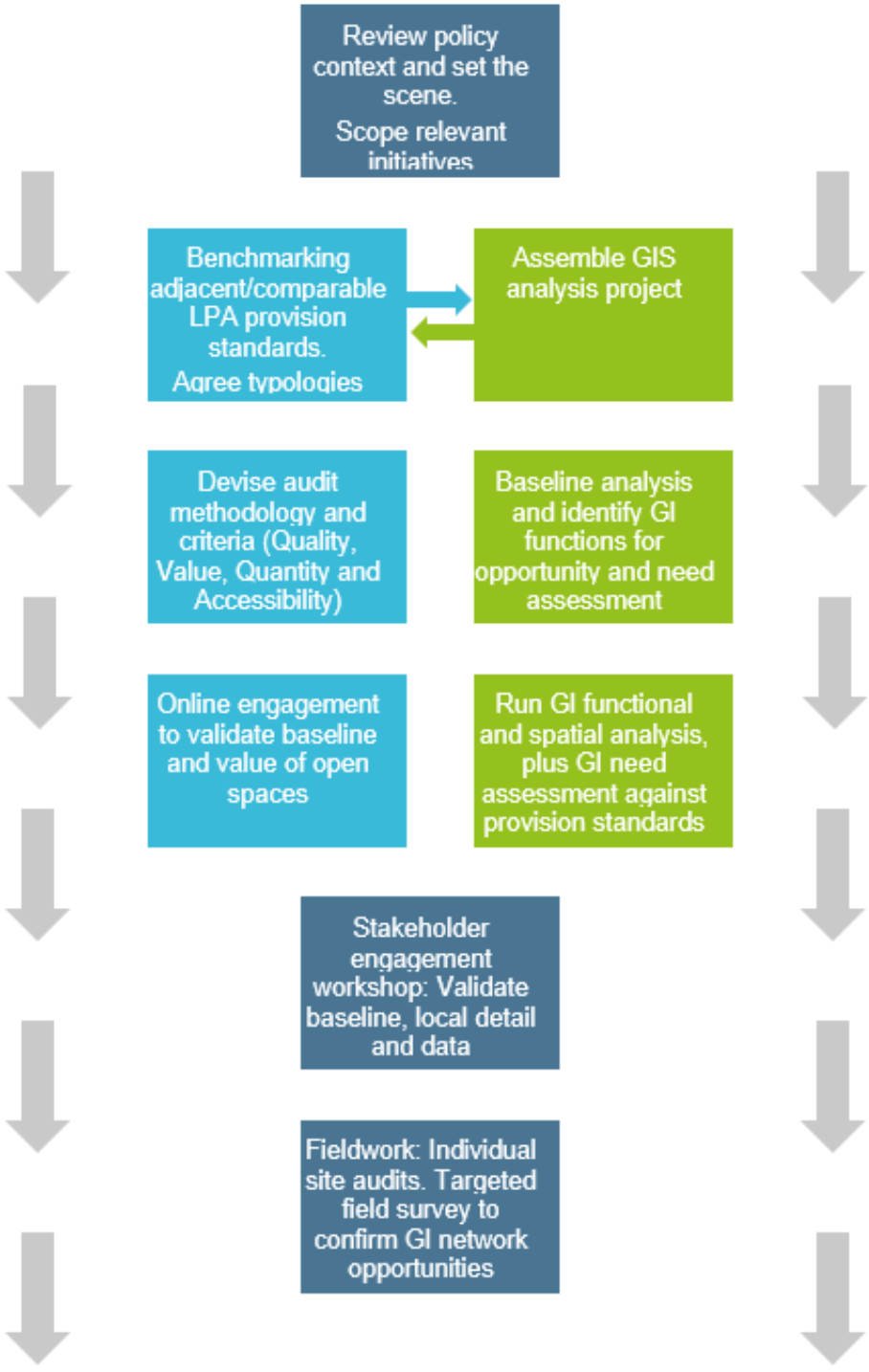
2.104 This section has found that only three out of the seven designated neighbourhood plan areas have been adopted as neighbourhood plans. The Neighbourhood Plan for Betley, Balterley and Wrinehill explicitly recognises the value of the rural natural environment. Chapel and Hill Chorlton, Maer and Aston and Whitmore Neighbourhood Plan confirms

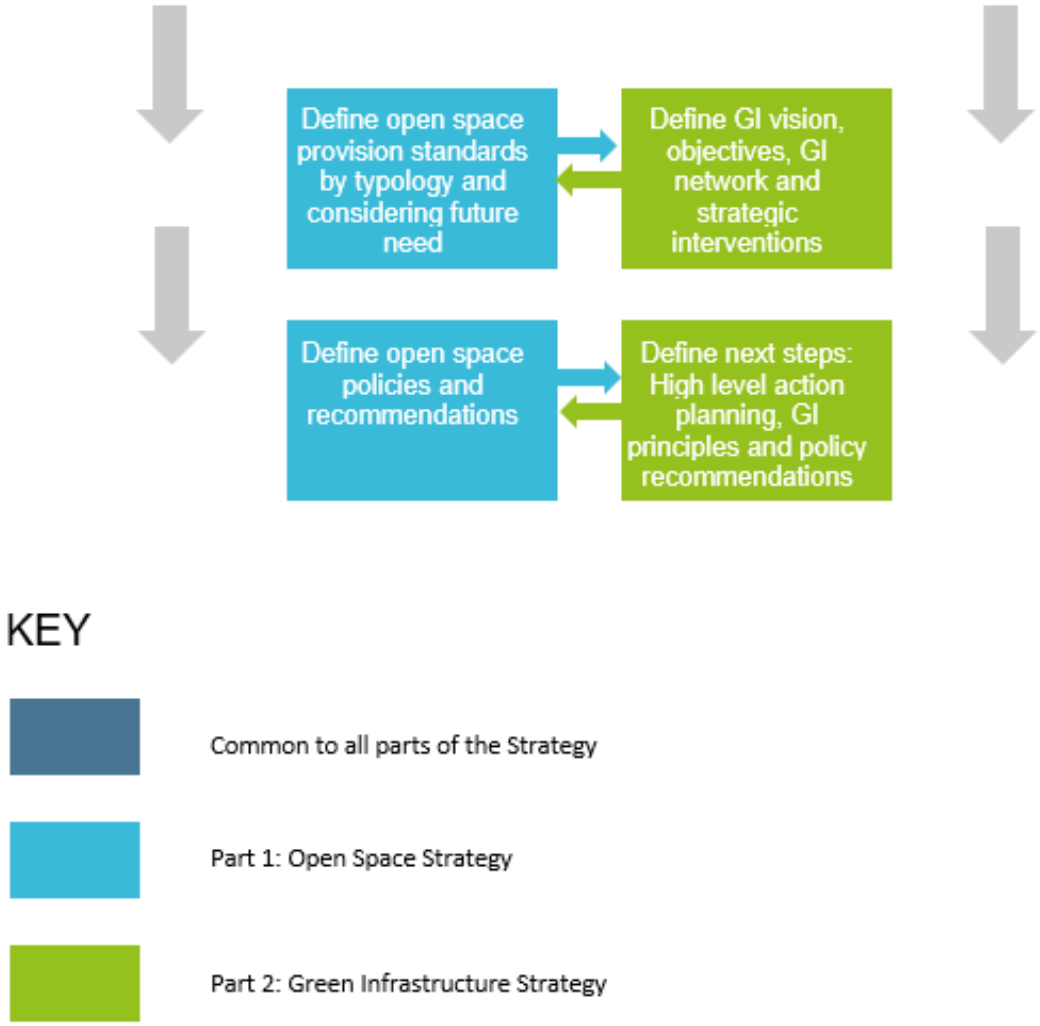
the importance of Local Green Spaces (Policy COM2) and green infrastructure as a method of maintaining these key spaces within a neighbourhood. Loggerheads Neighbourhood Plan has adopted a specific design and environment policy that partially focusses on GI and OS when determining applications.

3 SUMMARY METHODOLOGY

3.1 The methodology used to undertake both parts of the strategy is summarised in the flow diagram below, and described in detail at **Appendix 1**.

Figure 3.1: Project methodology – key steps





Summary methodology for auditing existing provision

3.2 Existing data on open spaces within NULBC's remit was collated and reviewed. In close liaison with NULBC the dataset was updated to understand existing provision within the correct typologies for robustness. This followed sharing local knowledge, research, fieldwork and cross referencing with recent aerial imagery. All agreed suspected publicly accessible open spaces within the borough were included within the audit. The exceptions are detailed under study limitations below.

3.3 The audit was undertaken by trained auditors in 2021 who were familiar with the Green Flag Award scheme[6] and Play England guidance[7] which was used for the fieldwork and established the quality and value scoring. Fieldwork guidelines for scoring were prepared for and referred to for consistency. Fieldwork took place using GIS-enabled tablets for

[6] Ellicott, K. 2016. *Raising the standard: The Green Flag Award guidance manual* [pdf]. Available at: <https://www.greenflagaward.org/media/1019/green-flag-award-guidelines.pdf> [Accessed 02 August 2021].

[7] Play England, 2009. *Tools for evaluating local play provision: A technical guide to Play England local play indicators* [pdf]. Available at: <https://www.bl.uk/collection-items/tools-for-evaluating-local-play-provision-a-technical-guide-to-play-england-local-play-indicators> [Accessed 02 August 2021].

data collection. Background information on the context and value of sites was also collected in advance. The form provided an effective way of obtaining information about sites, enabling benchmarks to be established, and determining quality and value/location ratings.

3.4 The scored audit was based on the nationally and internationally recognised Green Flag Award themes which are the benchmark standard for open space:

1) A Welcoming Place: Welcoming, signage, access and boundaries.

2) Healthy, Safe and Secure: Facilities in a good and safe condition, feeling of safety, dog control and dog fouling and provision of facilities.

3) Well Maintained and Clean: Litter and waste, horticultural and arboricultural maintenance, equipment, buildings and infrastructure maintenance.

4) Environmental Management: Evidence of positive interventions e.g. composting and habitat features.

5) Biodiversity, Landscape and Heritage: Management of ecology features, conservation of landscape, buildings and structures features.

6) Community Involvement: Evidence of community involvement and appropriate provision and features for education.

7) Marketing and Communication: Evidence of marketing and promotion and appropriate educational and interpretational information.

3.5 In addition appropriate Play England guidance themes were utilised for the play area scored assessments including: Informal oversight; well used; personal safety, lighting and security; well designed; opportunities for disabled children; movement; imaginative play; ball games, loose parts; natural play features, seating and bins provided; overall condition of play equipment; overall condition of supporting site furniture and play area notice provision.

Study limitations

3.6 The study has considered publicly accessible open space above 0.1 hectare in size across the borough and excludes areas of land such as school grounds, agricultural land, civic spaces and standalone sports facilities (including indoor facilities and playing fields).

3.7 The strategy considers open space and play areas within a snapshot in time in 2021. Some play area sites have not currently been considered as they are either derelict e.g. site 262 or are building sites yet to be complete e.g. 251, and therefore are not fully assessed for fairness.

3.8 There were a proportion of sites that were not fully audited or completed due to a range of factors including access/entrance difficulties and identified health and safety issues at the time of inspection, comments were provided in the relevant audit data provided to NULBC. Given that a significant proportion of open space sites had detailed audits undertaken and a subsequent good range of representative scores were received, it was deemed acceptable to omit detailed results for a limited proportion of sites.

3.9 For sites where access may have been challenging and with barriers such as fencing and gates, quality and value audits were completed where the auditor felt they could observe

the site safely from the site margins. These scores tended to be lower and less robust but suitable comments and justifications were provided within the audit data for transparency. In cases where little could be observed e.g. unconfirmed access due to barriers and obstacles a comment was noted within the audit data.

PART 1: OPEN SPACE STRATEGY

4 CURRENT OPEN SPACE PROVISION

4.1 The open space strategy was undertaken in order to inform and complement the NULBC Green Infrastructure Strategy (**Part 2**). This section sets the scene in terms of open space typologies represented in NULBC and provides an overview of current open space provision.

4.2 For robustness the preparation of this study has followed national guidance on planning for open space and utilises nationally recognised guidance and benchmark standards including those within the latest Fields in Trust guidance. The Green Flag Award scheme and Play England guidance have been utilised for site assessments.

4.3 **Figure 4.1** outlines three sub-areas within a varied borough to assist with considered context (geographic and demographic), analysis and strategic recommendations. These align with the further subdivisions contained within the recent *NULBC Playing Pitch Strategy Assessment Report 2020* and are named Rural South, Central and Urban North. *The Guidance for Outdoor Sport and Play (2020)*[8] document prefers not to distinguish between rural and urban areas for provision standards.

Demographics

4.4 In 2019 the population of Newcastle-under-Lyme Borough was 129,441 people. This is an increase of 4% from since 2012. In summary 18.1% of the population were children aged under 18, 61.2% were adults aged 18 to 64 and 20.7% were aged 65 or over. Unusually the population has a lower proportion of people aged under 5 and under 16 compared to England. There are more people aged 16-64 and 65 and over in Newcastle-under-Lyme compared to the average.[9]

4.5 For the purposes of this study and calculations the 2020 population figures of 129,610 can be utilised. These figures are from the most recent 2020 Mid-Year Estimates from The Office of National Statistics[10] which can breakdown the populations by current ward and therefore sub-area. These estimates also highlight there are 64,428 males and 65,128 females within Newcastle-under-Lyme. A projected 2040 population figure of 140,468 can be obtained from population projections for local authorities using the 2018 based edition from The Office of National Statistics[11].

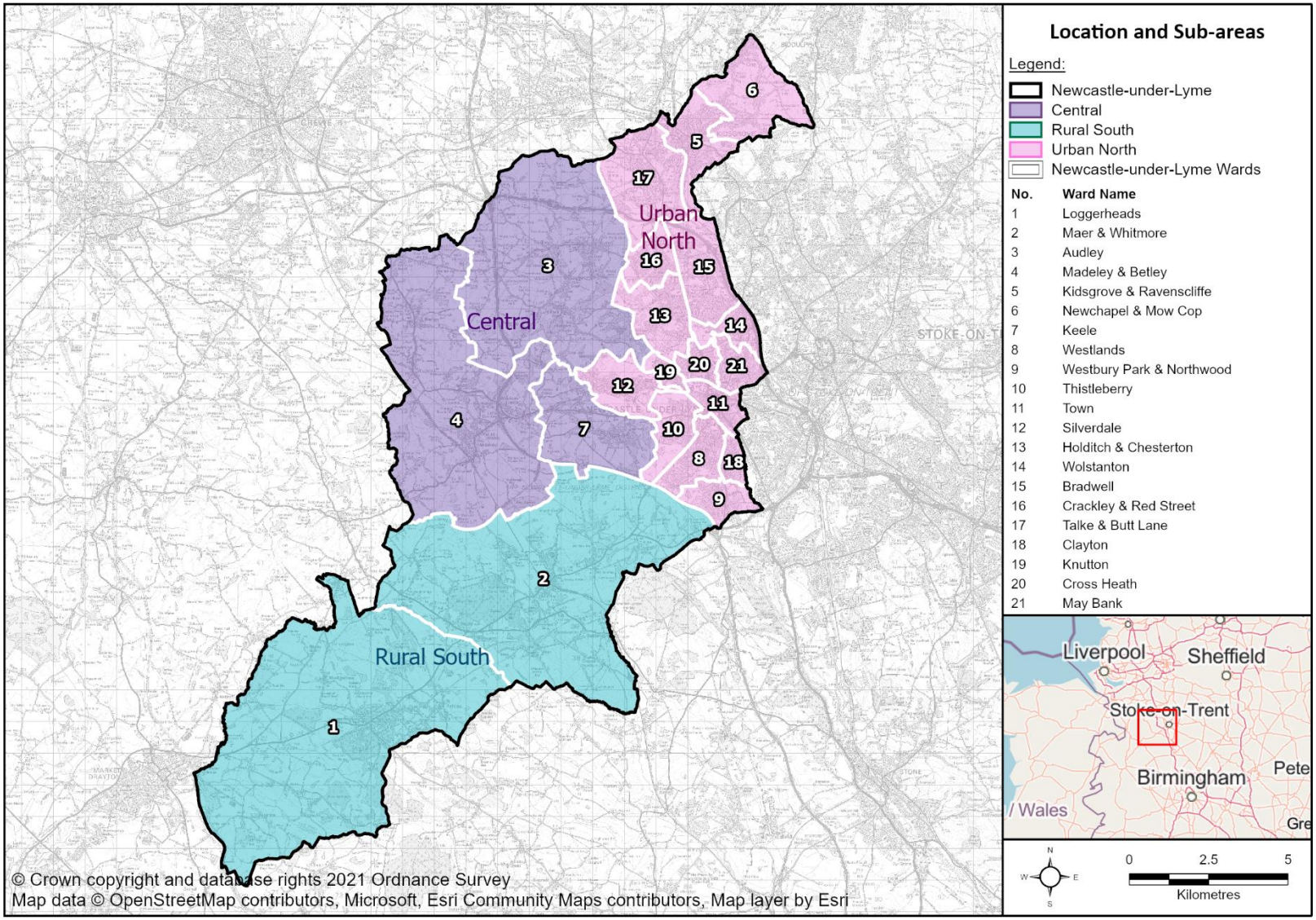
[8] Fields in Trust, 2020. *Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard: England.* [pdf]. Available at: <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-England.pdf>. [Accessed 03 August 2021]

[9] Newcastle-under-Lyme Borough Council, 2021. *Newcastle-Under-Lyme Borough Council Housing Strategy 2021-2025.* [pdf]. Available at: <https://www.newcastle-staffs.gov.uk/sites/default/files/IMCE/News/Draft%20Housing%20Strategy%20PDF%20%202021%20August%202021.pdf>. [Accessed 19 October 2021]

[10] Office for National Statistics Website, 2021. *Ward Level Mid-Year Population Estimates*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/wardlevelmidyearpopulationestimatesexperimental> [Accessed 19 October 2021]

[11] Office for National Statistics Website, 2021. *Population Projections for Local Authorities*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2> [Accessed 19 October 2021]

Figure 4.1: Location and Sub-areas



Deprivation levels

4.6 **Figures 4.2 – 4.3** highlight the Living Environment Deprivation and Index of Multiple Deprivation levels respectively and therefore provide some indicators of need within the borough. The former measures the quality of the local environment, both the indoor living environment (quality of housing) and the outdoor living environment (levels of road accidents and air quality). The Urban North shows a varied and polarised picture within. The wards of May Bank, Town and Wolstanton highlight pockets of the highest levels of Living Environment Deprivation.

4.7 The overarching Index of Multiple Deprivation considers health and living environment criteria alongside factors including income, employment, education, crime and barriers to housing and services. Similarly there is great variation within the Urban North. The wards of Westlands, Town, Cross Heath, Holditch & Chesterton and Kidsgrove & Ravenscliffe highlight pockets of higher deprivation levels. A localised area of higher deprivation can also be seen within the Central sub-area within Madeley & Betley ward.

Open space provision, quality and deprivation levels

4.8 A recent *Midlands Parks Forum Research Report*[12] has explored relationships between deprivation, investment and green space quality plus areas to prioritise. In summary it was concluded that lottery-funded parks are in the more deprived areas within the region, there is a similar pattern for quality standards. This is positive in the sense that the deprived areas have made great efforts to drive up standards, support a post-Covid recovery and secure external investment. Greater investment from the National Lottery Heritage Find (NLHF) has been driven partly by the reduced ability of councils to find the necessary match funding. Targeted collaboration work across the sector is required including MPF, its members (Newcastle-under-Lyme not currently a member), award and grant-giving bodies and Public Health England. The closure of the targeted Parks for People programme in December 2018 has also created some financial constraints for open spaces and their enhancements.

4.9 The analysis has also revealed a trend in green space availability and levels of deprivation. Based on green space data from Ordnance Survey, the average hectares of green space per 1,000 population within the top 20% most deprived are less than half that in the top 20% least deprived. Data within the report from 2017-19 has highlighted NULBC has a capital budget to invest in parks and that condition is stable. A 2016 Parks Manager Survey has highlighted parks condition as good.

[12] CFP, 2021.*Midlands Parks Forum Research Report.* [pdf]. Available at: <https://midlandsparksforum.co.uk/wp-content/uploads/2021/09/Midlands-Parks-Forum-Research-2021.pdf>. [Accessed 19 October 2021]

Figure 4.2: Living Environment Deprivation

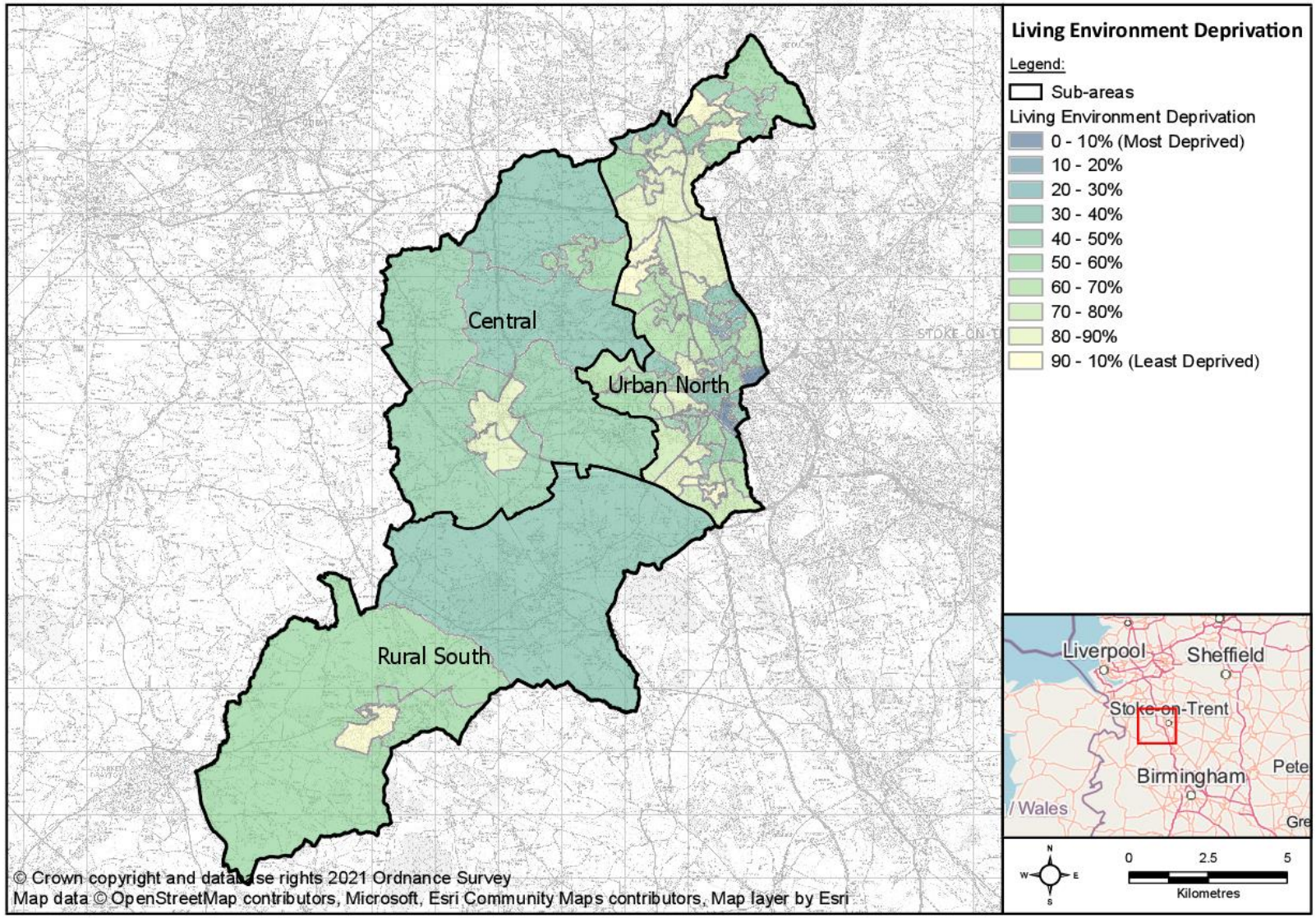
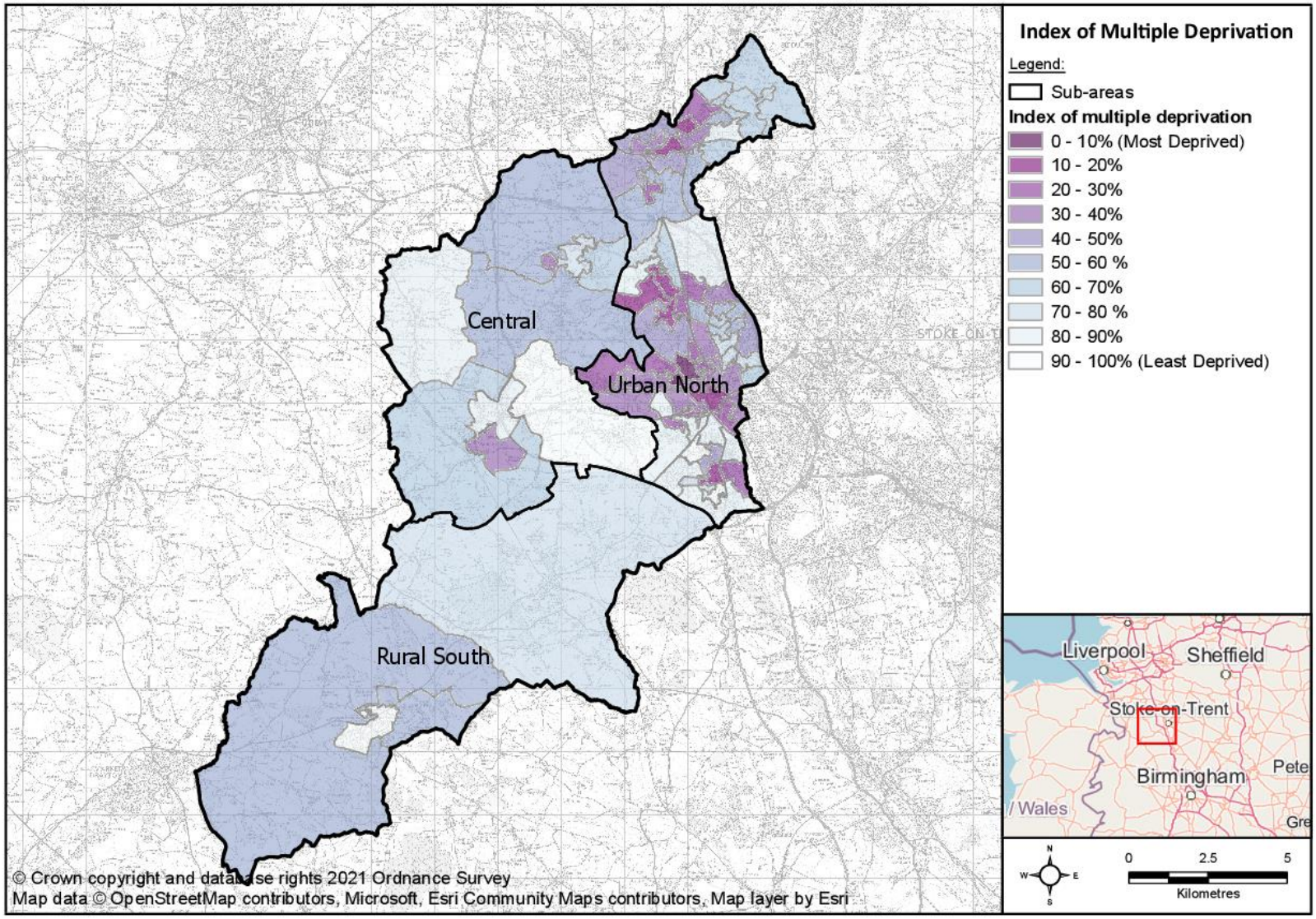


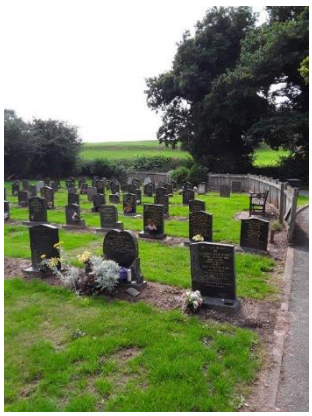
Figure 4.3: Index of Multiple Deprivation



Setting the scene: Open space typologies and overview of current provision

4.10 Primary typologies which provide a range of functions are set out within **Table 4.1** alongside broad definitions. Secondary typologies can be found within these spaces and may comprise public sports pitches, play areas or natural and semi-natural greenspace for example.

Table 4.1: Open space attributes

Open space typology	Primary attributes	Representative image from the Borough
Allotments	Spaces and plots used by the local community for growing food fostering community health and wellbeing benefits. Image: Manor Road Allotments	
Amenity greenspace	Incidental mown grass areas surrounding residential and built areas providing few facilities and vegetation types. Image: Cedar Road Open Space	
Cemeteries and churchyards	Predominately used for burial of the dead and used as a quiet space for relaxation and reflection. These areas tend to encourage wildlife opportunities. Image: Madeley Cemetery	

Open space typology	Primary attributes	Representative image from the Borough
Green corridors	Linear spaces which have key access routes for people and wildlife within including walking, horse riding, cycling and water transport infrastructure. Image: Newcastle Greenway	
Natural and semi-natural greenspace	Predominately natural and wilder spaces which should have a biodiversity and wildlife education focus. Image: Bradwell Wood	
Parks and gardens	Multi-functional, publicly accessible spaces providing a range of facilities including opportunities for informal recreation, events, play, relaxation and sports activity. Image Queens Gardens	
Outdoor sports provision (secondary typology)	Outdoor sports ranging from pitched sports areas such as football and rugby to athletics tracks. This study excludes standalone sports facilities (including indoor facilities and playing fields). Image: Football pitches within Madeley Heath Playing Fields	

Open space typology	Primary attributes	Representative image from the Borough
Provision for children and teenagers	Area for different levels of play for different age groups and may include natural play features, traditional equipped play, skate parks and multi-use games areas (MUGAs). Image: Example LAP category at Alsagers Bank Play Area	

Play area categorisation

4.11 In consideration of the latest Fields in Trust (FiT) and Play England guidance we are able to define the following play area categories for the purposes of this assessment in NULBC:

Local Areas for Play (LAPs):

- Small, low-key games area (may include "demonstrative" play features)
- Minimum activity zone of 100sqm. Normally caters for 0-5 age group.

Local Equipped Areas for Play (LEAPs):

- Approximately five types of equipment
- Minimum activity zone of 400sqm. Normally caters for two age groups e.g. 0-5 & 5-11.

Neighbourhood Equipped Areas for Play (NEAPs):

- Approximately eight types of equipment
- Kickabout and/or wheeled activities
- Minimum activity zone of 1,000sqm comprising an area for play equipment and structures
- Hard surfaced area of at least 465sqm (the minimum needed to play five-a-side football). Normally all age groups catered for including teenagers.
- **NB** Standalone multi-use games areas (MUGAs) and skateboard parks have not been further separated out and have been categorised as NEAPs given their level of provision, location and surrounds in the context of NULBC.

4.12 There had to be reasonable judgement made when making categorisations based on audits and there was some minor variation of equipment.

Existing open space provision

4.13 Levels of provision of open space by hectares per 1000 population are set out within various tables within this report. A worked example using the first line for allotments in **Table 4.2** is set out below to assist and to help with forward planning and monitoring land use changes within the borough:

15.11 ha / 129.610 (2020 population: 129,610) = 0.12 ha

4.14 **Table 4.2** sets out the quantity and area of open space in NULBC by typology and hierarchy. The areas include those sites that were not fully audited and where access could be improved.

4.15 **Figures 4.4 - 4.5** show the spatial distribution of open spaces by typology in the north and south of the borough overlaid on a population density dataset. As can be expected the greatest number of people per hectare are within the north of the borough and within the Central and Urban North sub-areas.

Table 4.2: Existing open space provision

Open space typology	Hierarchy	Number of sites	Area (Ha)	Hectares per 1000 population 2020
Allotments		14	15.11	0.12
Amenity greenspace		115	152.29	1.17
Cemeteries and churchyards		25	54.81	0.42
Green corridors		15	37.67	0.29
Natural and semi-natural greenspace	Sub-Regional (60-400ha)	6	648.92	5.00
	District (20-59ha)	17	562.56	4.34
	Local (2-19ha)	98	620.89.14	4.79
	Small Local (<2ha)	50	54.30	0.42
Parks and gardens	Sub-Regional (60-400ha)	2	237.99	1.84
	District (20-59ha)	2	56.09	0.43

Open space typology	Hierarchy	Number of sites	Area (Ha)	Hectares per 1000 population 2020
	Local (2-19ha)	15	65.66	0.51
	Small Local (<2ha)	16	12.49	0.10
Provision for children and teenagers (primary and secondary typologies)		71	9.47	0.07
Total		446	2528.25	19.51

Figure 4.4: Open Space Typologies (North)

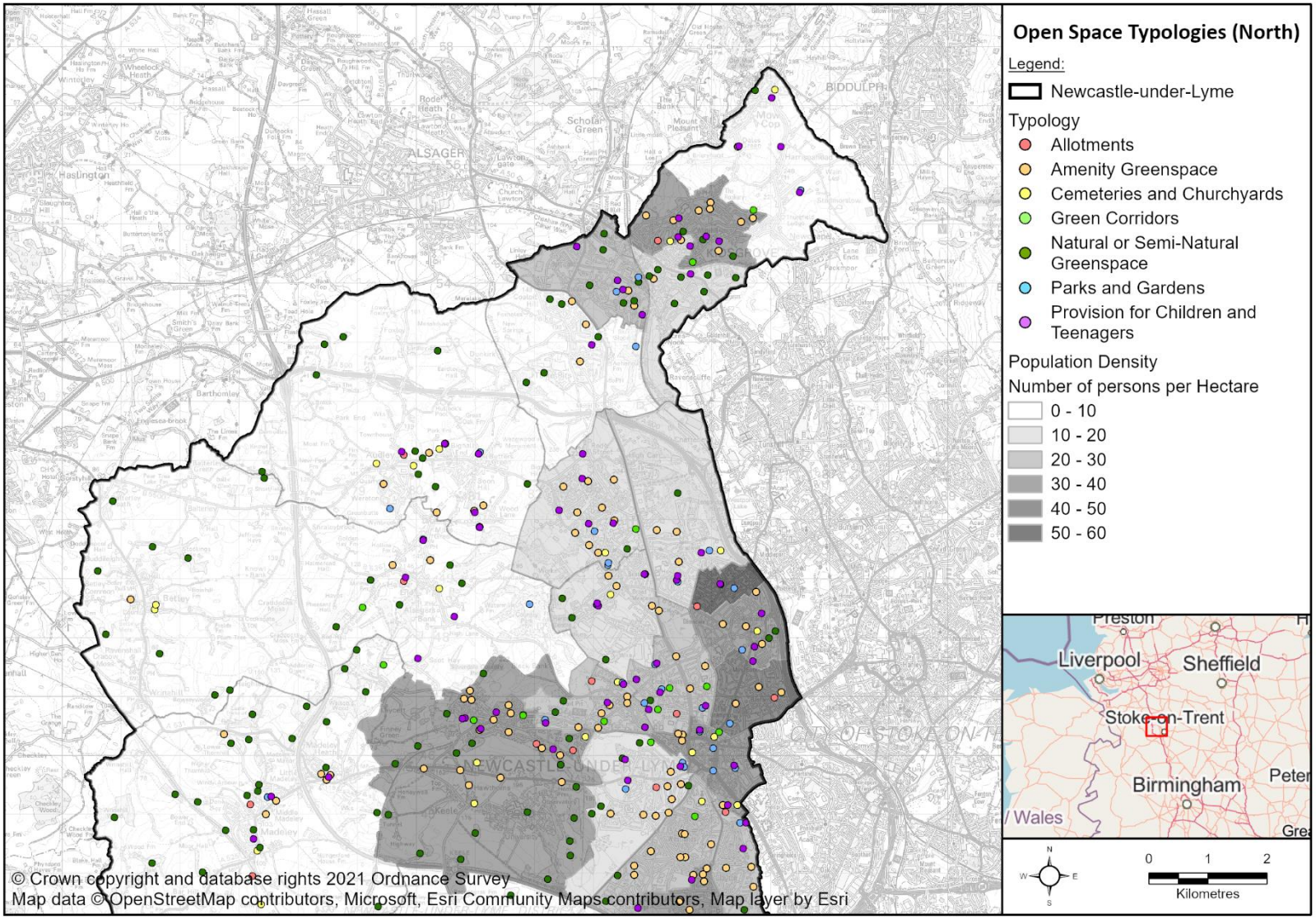
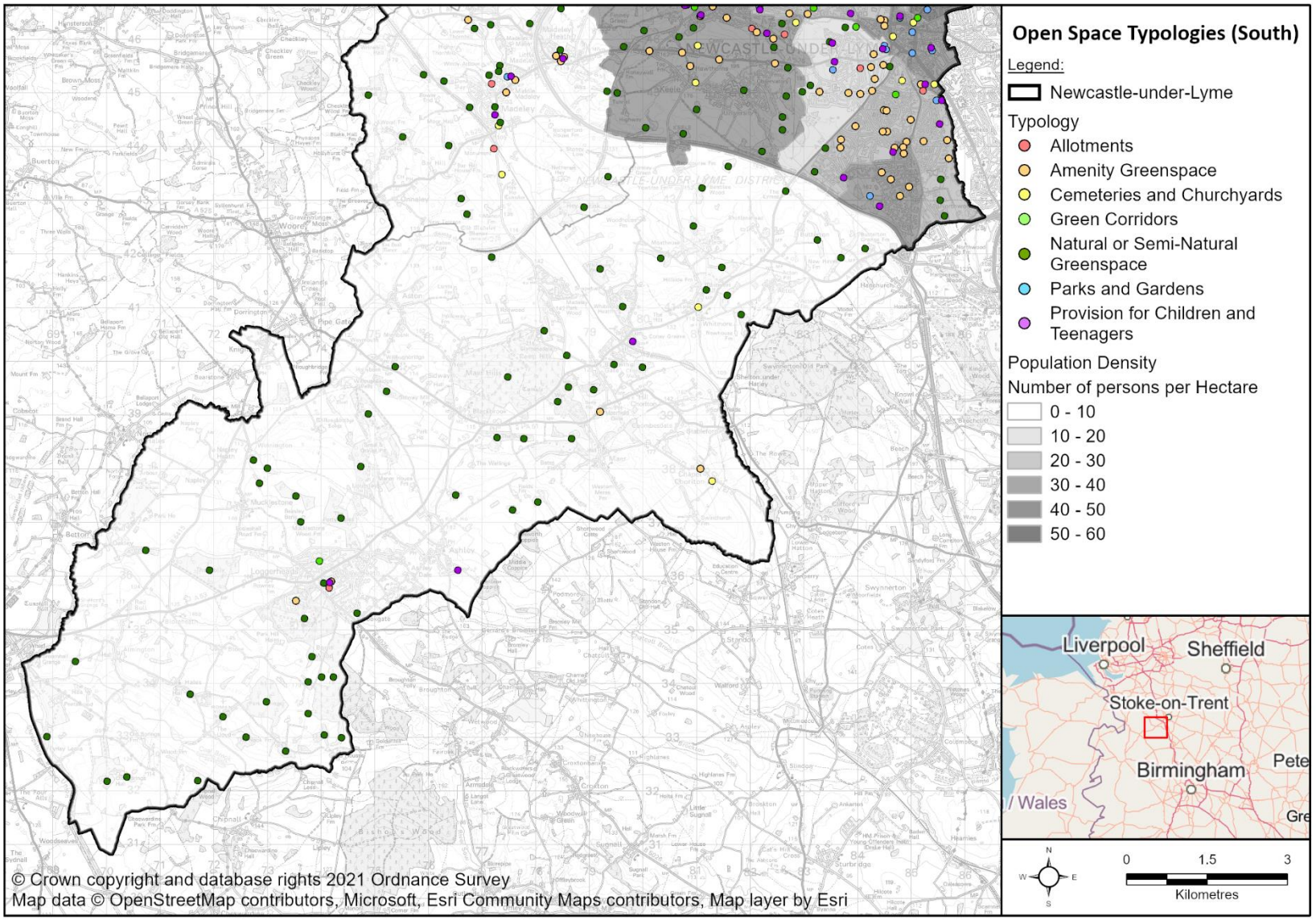


Figure 4.5: Open Space Typologies (South)



Outdoor sports provision: Newcastle-under-Lyme Borough Council Playing Pitch Strategy (PPS) Assessment Report 2020[13]

4.16 This Open Space Strategy focuses on those publicly accessible sports areas within wider sites such as parks and gardens and amenity greenspace. However a complementary PPS report has been commissioned by NULBC in 2020 which explores sports provision and standalone sports sites. The recent PPS is an update to the strategy in 2014. It provides an evidence base and action plan to support and enhance sport and recreation within NULBC through helping to understand provision levels and informing investment amongst a growing population within the borough. The strategy examines the following sports: Football; Cricket; Rugby; Hockey; Golf; Bowls; Tennis; Netball and Others (Ultimate Frisbee; Lacrosse and American Football).

4.17 There are several overarching recommendations which are of relevance to the Open Space Strategy including:

- Priority should be placed on improving the quality of playing and ancillary provision of current sites in addition to the exploration of multi pitch hub sites rather than investment in single pitch sites, particularly in the locality of areas with large scale housing development.
- There's a need to improve and secure community access at educational sites, particularly those which are dual use.
- The audit identifies a total of 128 grass football pitches within Newcastle-under-Lyme across 53 sites. Of these, 102 pitches are available, at some level, for community use across 43 sites.
- In total, 17 pitches are assessed as good quality, 53 as standard quality and 32 as poor quality. The majority of poor quality pitches (53%) are located at educational sites.
- There has been no identified future spare capacity at Kidsgrove and Urban Newcastle, North, South and Central.
- **Football:** Protect existing quantity until the demand met. Sustain pitch quality and seek improvements by the Football Association's Pitch Improvement Programme.
- **Cricket:** Protect all cricket squares in current use, localised quality issues to resolve.
- **Rugby:** Existing quantity to be protected or fully mitigated. Pitch quality requires improvement at secure sites.
- **Hockey:** Protect all existing full size sand-based AGPs for hockey use. Explore the feasibility of creating a second full size hockey suitable AGP at Newcastle-under-Lyme School.
- **Golf:** Retain all current golf courses. If Keele Driving Range is lost alternative provision should be provided elsewhere.

[13] Knight, Kavanagh & Page Ltd, 2020. *Newcastle-under-Lyme Borough Council Playing Pitch Strategy Assessment Report*

- **Bowling Green:** Retain existing quantity of greens, there could be further maintenance enhancements at Wolstanton Park and Wolstanton High Street Club.
- **Tennis:** Retain and sustain quality of club courts. Improve the quality of key local authority courts and accompanying ancillary provision, especially for informal play. Explore indoor tennis provision opportunity at Newcastle-under-Lyme School.
- **Netball:** Protect quantity of courts and assist with the aspiration to deliver a purpose built indoor facility at Newcastle-under-Lyme School.

Keele Golf Course

4.18 Municipal (Keele) Golf Course closed to public in 2014 and the site has been identified for potential housing development by NULBC, however, as it sits within green belt land it requires the land to be released through the development of the new local plan. This needs to be completed before any planning application is submitted and approved.[14]

4.19 Keele Golf Course is a significant and highly valued site by the community however it is not specifically included within the open space strategy assessment but included within the *Newcastle-under-Lyme Borough Council Playing Pitch Strategy Assessment Report.* This open space exclusion is due to the site not providing existing publicly accessible open space provision. There are public rights of way crossing the site and there is some unauthorised informal recreational use.

Existing open space

4.20 **Table 4.3** outlines the current provision of open space by sub-area.

4.21 The Urban North contains a noticeably higher quantity of allotments, amenity greenspace, green corridors, parks and gardens and play provision. This can be attributed to the densely populated residential areas and soft landscape supporting transport infrastructure and housing. Both the Central and Urban North have a greater and similar quantity of cemeteries and churchyards. As can be expected all three sub-areas have a high quantity of natural and semi-natural greenspace however the Rural South has the greatest quantity given the established natural and open landscape within the less densely populated area. This typology clearly provides the greatest total quantity of open space within the borough. There are no parks and gardens and green corridors in the rural south with limited cemetery and play area provision.

[14] Knight, Kavanagh & Page Ltd, 2020. *Newcastle-under-Lyme Borough Council Playing Pitch Strategy Assessment Report*

Table 4.3: Existing open space provision by sub-area

Open space typology	Rural South (Ha)	Central (Ha)	Urban North (Ha)	Total typologies (Ha)
Allotments	1.10	3.22	10.79	15.11
Amenity greenspace	3.16	24.04	125.09	152.29
Cemeteries and churchyards	0.82	26.17	27.83	54.81
Green corridors	2.25	9.44	25.97	37.67
Natural and semi-natural greenspace	865.24	703.06	318.37	1886.67
Parks and gardens	0	181.04	191.19	372.23
Provision for children and teenagers	0.25	1.85	7.37	9.47
Sub-area (Ha)	872.82	948.82	706.61	2528.25

4.22 **Table 4.4** provides information on the amount and classification of play areas currently available in NULBC. The area refers to the space used by the equipped area for play and not the wider primary typology of the site. It can be seen there is a more significant number and area of LEAPs within the borough.

Table 4.4: Existing play provision by classification

Play classification	Number		Area (Ha)	
	No	%	No	%
Local Area for Play (LAP)	6	8.57	0.26	2.60
Local Equipped Area for Play (LEAP)	47	64.29	6.59	53.36
Neighbourhood Equipped Area for Play (NEAP)	18	27.14	4.31	44.04
Total	71	100	11.16	100

4.23 **Table 4.5** outlines those primary typology sites where play area sites can be found within. Larger proportions of play area are within parks and gardens and amenity greenspaces where they are situated close to residential properties.

Table 4.5: Existing play provision by primary typology

Open space typology	Number of sites with play provision
Parks and gardens	37
Natural and semi-natural greenspace	2
Amenity greenspace	13
Provision for children and young people	19
Total	71

4.24 **Table 4.6** provides a useful breakdown of those young children and older children age groups which are catered for in terms of play provision by primary typology.

Table 4.6: Existing play provision numbers and age groups by primary typology

Open space typology	Count of sites with play provision		
	0-5	5-11	Teenagers
Parks and gardens	28	27	12
Natural and semi-natural greenspace	1	1	1
Amenity greenspace	11	9	1
Provision for children and young people	15	18	3
Total	55	55	17

4.25 **Table 4.7** similarly provides information on young children and older children age groups which are catered for in terms of play provision within the three sub-areas. There is a noticeable deficit of provision for the teenager age group which was also confirmed

through consultation. There is limited play provision in the Rural South with a lack of teenager age group provision within this sub-area.

Table 4.7: Existing play provision by age group within sub-area

Sub-area	Age groups		
	0-5	5-11	Teenagers
Rural South	3	3	0
Central	8	11	5
Urban North	44	41	12
Total	55	55	17

4.26 **Table 4.8** highlights the extent of accessibility of open space within each typology following the open space audits. The majority of open space is freely accessible to the public. A proportion of sites have the potential for providing improved access particularly within the natural and semi-natural greenspace typology. This typology may currently offer some visual rather than physical access or key access routes may be overgrown or non-existent and surrounded by private land ownership. Justifications for barriers to access identified with no public access and unconfirmed access (where auditors were unable to complete an audit or reach the site safely) are contained within the fieldwork results. The proportion of limited access identified at allotments is typically found within other local authorities and is due in part to exclusive use of allotment plot tenants. Particular allotment sites may have greater gated and fenced security measures than others which invariably made quality and value assessments more challenging due to auditor visibility.

Table 4.8: Accessibility of open space in Newcastle-under-Lyme

Open space typology	Freely accessible (Ha)	Limited (Ha)	No public access (Ha)	Unconfirmed (Ha)
Allotments	0	15.11	0	0
Amenity greenspace	126.38	0	0.29	25.62
Cemeteries and churchyards	41.55	13.26	0	0
Green corridors	21.51	7.84	0	8.31
Natural and semi-natural greenspace	837.50	314.98	147.15	587.04

Open space typology	Freely accessible (Ha)	Limited (Ha)	No public access (Ha)	Unconfirmed (Ha)
Parks and gardens	360.90	11.23	0	0.1
Provision for children and teenagers	8.67	0.81	0	9.47
Total (Ha)	1396.51	363.23	147.44	630.54

4.27 **Table 4.9** shows how the publicly accessible open spaces by primary typology are distributed between the three analysis areas used for this assessment. The areas are derived from recorded freely accessible and limited accessibility amounts. Similar patterns can be seen in reference to **Table 4.8**. Generally there is good accessible provision. The Rural South identifies the lack of confirmed accessible natural and semi-natural greenspace and therefore reduced quantity that may be accessible.

Table 4.9: Quantity of publicly accessible open space by sub-area

Open space typology	Rural South (Ha)	Central (Ha)	Urban North (Ha)	Total typologies (Ha)
Allotments	1.10	3.22	10.79	15.11
Amenity greenspace	3.16	21.18	102.04	126.38
Cemeteries and churchyards	0.82	26.17	27.83	54.82
Green corridors	2.25	5.56	21.55	29.36
Natural and semi-natural greenspace	386.23	528.61	237.64	1152.48
Parks and gardens	0	181.04	191.09	372.13
Provision for children and teenagers	0.25	1.85	7.37	9.47
Sub-area (Ha)	393.81	767.63	598.31	1759.75

Review of the 2017 Open Space Strategy: Key changes

4.28 A review was undertaken of the previous 2017 strategy to inform the baseline for this new strategy. The strategy undertook key stages including understanding the context, setting of standards, mapping and database compilation, consultation, analysis, vision and strategic recommendations.

4.29 The strategy highlights there is a valued, diverse and well-distributed network of open space. The strategy also found that the quality of open space in the borough is generally good or very good and that quality should be prioritised over quantity. Also consultation responses to the strategy highlighted that the accessibility and quality of open space can sometimes be more important than quantity. Accessibility standards were defined and in terms of quantity of provision except for allotments, the quantity of different open space types is ahead of Standard when considering the borough as a whole.

4.30 Important countryside sites in the Borough were highlighted including Apedale Country Park, Silverdale Country Park and Keele University. The Green Flag Award and Britain in Bloom schemes which the Borough partakes in were recognised as important.

4.31 The 2017 strategy also identified a few challenges of relevance to this new strategy, which are summarised as follows:

- The ownership and management of municipal open space with reduced staff and financial capacity to manage and deliver open space services.
- The relationship between open space and new development; since the Borough Council needs to allocate more land for economic purposes; including for housing and commercial.
- Seeking realistic support from both the 'wider community' and 'users' to implement and deliver changes.

4.32 These challenges can be addressed through the following:

- Improving the multifunctionality of open spaces and their connections while also reallocating resources to other sites in greater need of justified investment.
- Providing good communication and transparency with stakeholders and the public.

4.33 These considerations still remain of relevance to this new strategy, which seeks to utilise both detailed quality and value assessments in reference to the Green Flag Award scheme and Play England guidance. Datasets of open spaces will be reviewed and updated where required for robustness and projected demographic and population changes considered. A contribution criteria for strategic decision making can be set out which provides an indicative sliding scale from those aspects which lead to reduced contributions to greater contributions for the community. This should be referred to as a general guide whilst reviewing the findings of the assessments to determine contribution levels and therefore help to inform NULBC's strategic decisions over whether certain open space areas should be retained, created, removed, modified or enhanced.

Local open space needs: The community view

Approach to consultation

4.34 Public consultation was undertaken through an online survey which was hosted through NULBC's website and advertised on their social media between the 12th July 2021 and 16th August 2021. There were 357 respondents which was a very good return rate. Hard copies were also made available on request however online results were primarily received. RSK prepared questions in liaison with NULBC and their Communications department. For full results and findings of the surveys please refer to NULBC's Open Spaces Survey Results Report, August 2021 prepared by the Communications department.

4.35 A stakeholder workshop was also held on Microsoft Teams on the morning of the 15th July 2021, to validate, gain local views on and guide the approach being taken in the Newcastle-under-Lyme Borough Open Space and Green Infrastructure Strategy. The stakeholder workshop took the form of a briefing presentation by RSK who facilitated the meeting, followed by question and answer sessions together with a series of live polls completed by workshop participants in real time using the online platform SLIDO. These polls aimed to gauge stakeholder views in relation to a series of open space and green infrastructure questions.

4.36 In addition email and phone conversations were held with a few key stakeholders and views considered where they were unable to attend events or participate in formal consultation.

4.37 **Appendix 7** contains the summary reports, results and responses from the online consultation and stakeholder workshop. A summary of key findings are set out below.

Summary of key findings

Online consultation

4.38 The majority of users (75%) travel to their most visited park/open space by foot and 64% take no more than ten minutes to get there. The vast majority visiting daily and a few times a week. Respondents felt the most important aspects to improve within open spaces are the cleanliness, feeling safe and wildlife opportunities. The reasons for visiting parks and open spaces were primarily for exercise, walking/dog walking, relaxation mental health wellbeing and social activities and appreciating the wildlife.

4.39 There is a majority consensus that the amount and quality of parks and open space in Newcastle-under-Lyme is generally good as can be seen in **Table 4.10**.

Table 4.10: Respondents satisfaction with the quantity and quality of open space

Overall, what's your opinion on the amount and quality of parks and open spaces in Newcastle-under-Lyme Borough?

	Amount	Quality
Very good	9%	7%
Good	40%	41%

	Amount	Quality
Neutral	27%	30%
Poor	15%	14%
Very poor	9%	8%
Don't know	1%	1%

4.40 If additional open space were provided 76% would like more natural/semi-natural greenspace, 57 % would want more green corridors and 52% more parks and gardens.

4.41 The parks, open spaces and rights of way that respondents visited most often included Keele Golf Course, Lyme Valley Park, Bradwell Open Space, Bunny Hill and Apedale among many others with some strong feeling about protection within the comments section. Respondents also provided a list of five to ten known good examples or destination sites which they visited outside of Newcastle-under-Lyme Borough. Popular areas and sites included Tatton Park, the Peak District, Cannock Chase, The Roaches and Biddulph Country Park.

4.42 In terms of responses to the amount of equipped play facilities for children and teenagers in Newcastle-under-Lyme Borough responses for 0-5 and 5-11 age groups were very similar, for both of those the proportions rating the number of facilities as good or above (27% for 0-5 and 26% for 5-11) and poor or below (27% for 0-5 and 27% for 5-11) were almost identical. However, respondents were far less happy with the amount for teenagers. Only 8% rated them as good or above, with 47% rating them as poor or below.

4.43 In respect of responses to the quality of equipped play facilities for children and teenagers a similar pattern emerged 23% rated 0-5 facilities as good or above and 28% as poor or below, with 23% rating 5-11 facilities as good or above and 29% as poor or below. But again, satisfaction with facilities was significantly lower, with 7% rating them as good or above but 47% rating them as poor or below.

Workshop consultation

4.44 In summary the main points highlighted by the various live polls and interactive question and answer sessions on open space and green infrastructure are as follows:

Strengths:

- It's recognised there is a range of well used and quality open space.
- There are several green infrastructure initiatives and projects including smaller scale community orchards to Sunrise, Severn Trent Community Fund and Audley Millennium Green Trust among others.
- An overwhelming majority of 92% primary reason for visiting parks and open spaces were for relaxation, mental health or wellbeing and social activities.
- A number of sites are deemed to work well including Apedale, Lyme Valley Park, Bunny Hill, Wolstanton Marsh, Silverdale Country Park and Bateswood.
- Respondents also mentioned that they valued Keele Golf Course for informal recreation.

Weaknesses:

- Lack of signage (including rights of way), interpretation and infrastructure e.g. bins and equipment at many sites.
- There is a lack of youth/teenager play provision.
- Loggerheads parish has no NEAP or MUGA play provision.
- A current lack of managed wildflower meadows.

Opportunities:

- Connectivity, signage and rights of way links should be improved throughout the borough. Rewilding and Nature Recovery Networks should be considered.
- There should be strong links with health and wellbeing agendas and initiatives.
- Seek non-car sustainable travel opportunities.
- Future housing needs could be met by utilising derelict properties and through change of use (from business to residential particularly in urban areas).
- Potential for further social enterprises and apprenticeships for employment and skills to benefit local people and communities.
- A significant proportion of 71% of respondents cited the most important considerations to improve were feeling safe in the site. At 50% respondents mentioned cleanliness, wildlife opportunities and quality of facilities for all user groups.
- At 67% respondents highlighted that there is a need for more green corridors, allotments and natural play sites.

Threats:

- Insufficient resources.
- Population increases.
- Some lack of continuity and resources with volunteer schemes causing fluctuations.
- Anti-social behaviour, more lighting, sight lines and CCTV ideally required.

Summary of open space audit findings

Overview of quality and value/location scores

4.45 **Appendix 4** shows a list of sites with their quality and value/location ratings. For ease the following section summarises the results from the fieldwork through photosheets and captions highlighting positive observations and where there could be opportunities for enhancement relating to each typology.

Allotments

4.46 Allotments and community gardens are becoming increasingly in demand and its clear they provide a number of health and wellbeing benefits and a sense of community. Further detailed information from members of the local community were gathered during

consultation phases as part of this study. The majority of the allotments are located within the Urban North.

4.47 The quality and value standards were polarised within the borough. These observations ranged from sites with easy access (within the parameters of a typology whose access is by definition restricted by membership), site information and greater standards of care and maintenance to sites with some unwelcoming security fencing and prohibitive signage. It is also recognised that gating and defensible features can also be positive features with respect to allotments and safeguarding them. Some representative photographs of general characteristics and issues found on some sites are shown below.

Generally good visibility, boundaries and safety at Madeley Centre Allotments

Unwelcoming entrance and prohibitive signage at Jason Street Allotments

Amenity greenspace

4.48 Amenity greenspaces are highly valued by local communities who are not within walking distance of a park and garden, play areas or natural or semi-natural green space for example. The majority of these spaces were located within the Urban North. These attractive spaces typically envelop housing and transport infrastructure and can benefit water management and boost biodiversity.

4.49 Many of these positive environment values and care of maintenance were identified during fieldwork with scope for further opportunities at some sites for wayfinding, relaxing mowing regimes where safe to do so and further site furniture and amenities provision.

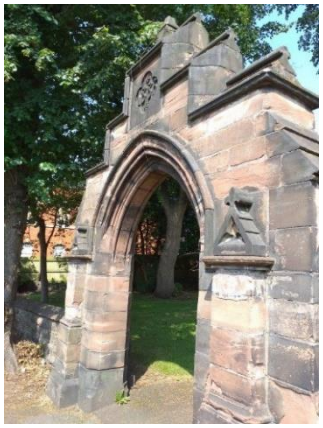
Good site furniture and amenity provision at Birchenwood Recreation Open Space

Potential for further tree planting and improved tree maintenance at Basford Park Road

Cemeteries and churchyards

4.50 Cemeteries and churchyards provide important spaces for contemplation and relaxation plus provide a historical setting and community open space. The majority of these spaces were located within the more densely populated sub-areas of Central and Urban North. These spaces also provide those that are not within walking distance of more active public open spaces such as parks and gardens opportunities for passive recreation and quietness. Keele Cemetery and Newcastle Crematorium received a Green Flag Award in 2021.

4.51 As identified through site visits these open spaces can provide important havens for wildlife, particularly where maintenance is conducted but less intensive. Generally these sites were found to be clean and well maintained with some access and wear and tear issues identified in places.



Attractive heritage features and welcoming approaches at St Georges Churchyard

Issues with litter and lack of varied landscape features/maintenance at Holy Trinity Church

Green corridors

4.52 Green corridors within the borough are typically linear spaces along key access routes and old transport infrastructure lines such as dismantled railways. These open spaces are predominately found within the Urban North.

4.53 Fieldwork identified these spaces as providing important environmental features and benefits however there was clear scope for enhancement for visitors in terms of access, wayfinding and providing engagement and education.

Generally appropriate facility provision and levels of access at Station Walks

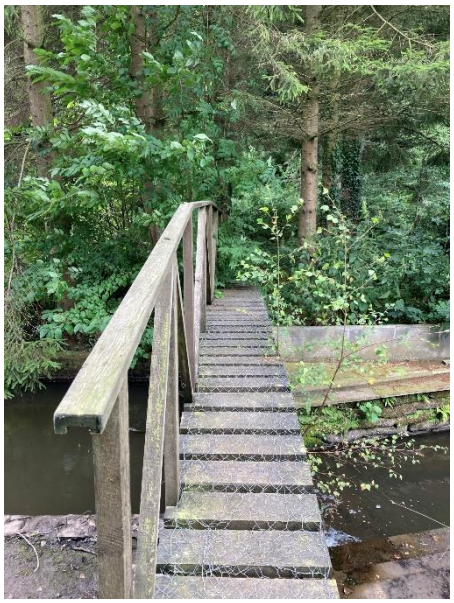
Potential for further site furniture and amenities at Silverdale Road Corridor

Natural and semi-natural greenspace

4.54 Natural and semi-natural greenspace form the greatest quantity of open space by typology. The greatest quantity is located within the less densely populated Rural South (although conversely access links and connections via PRoW and other routes are far sparser in the Rural South than the North of the Borough), but is well distributed within the borough.

4.55 Similar to green corridors the fieldwork identified that these open spaces provided a good range of important habitat and landscape features however access was challenging if non-existent at some sites. This lack of access appeared to be due to overgrown access routes or obstructions and surrounding private land ownership. There was an identified lack of clear wayfinding, site furniture/amenities and interpretation at a proportion of sites and in some cases appropriate vegetation management. These accessible open spaces are highly valued by the surrounding communities and its clear they provide a significant positive open space impact within the borough.

Provision of site furniture and amenities at Leddy's Field Wildlife Area (although weathered)



Overgrown and unsafe restricted access at Birk's Wood

Parks and gardens

4.56 Parks and gardens in NULBC provide a wide range of facilities and features for the surrounding communities primarily in the sub-areas of Central and Urban North. Recent Green Flag Awards have been awarded at Bathpool Park, Queens Gardens and Wolstanton Park for example. The Green Flag Award scheme recognises and rewards well managed parks and green spaces, setting the benchmark standard for the management of open space.

4.57 Site visits revealed that the borough generally has a good range of high quality and high value parks and gardens with varied amenities and facilities. Typically there were some sites experiencing signs of anti-social behaviour, vandalism and wear and tear. There were indications there could have been better community facility provision and education facilities within some of these open spaces.

Welcoming signage at Wolstanton Park

Invasive (Schedule 9) Japanese Knotweed identified at Oaklands Park (The Dingle) which requires appropriate treatment

Provision for children and teenagers

4.58 Play areas are predominately located within or adjacent to larger open spaces such as parks and gardens amenity greenspace and largely comprise the LEAP hierarchy. Some sections of the borough's residents are not within easy walking distance of a suitable play facility particularly within the Rural South. This was highlighted as an issue through stakeholder consultation and confirmed by the mapping of accessibility catchments.

4.59 Fieldwork revealed there was good variation play equipment for differing age groups however there were some concerns with equality of access and ongoing maintenance of play spaces with a noticeable deficit in the teenager age group.

Generally well maintained and varied play equipment at Whitmore Play Area

Weathered play equipment and facilities at Arnold Grove Play Area

Provision for children and teenagers: separate site assessment summary

4.60 For robustness separate play area assessments were conducted for the equipped play areas and recommendations within the Play England guidance[15] were referred to. The overall percentage scores were calculated with consideration given to all key aspects of play provision such as value/location and quality. The scored sections from informal oversight to bin provision were used for determining value/location percentages, however this excluded the imaginative play question for LAPs. The scored sections from overall condition of play equipment to evidence of a play area notice were used for determining the quality and care and maintenance percentages.

4.61 The audits provided a baseline assessment to identify general themes and patterns in provision across the borough, this will therefore result in forward planning for resources, investment and future management proposals to address any shortfalls.

4.62 **Table 4.11** sets out the average overall scores by sub-area, the mean average % score for quality, value and location is 56.88%. The Rural South scores the highest overall and in descending order the Urban North and Central follow.

[15] Play England, 2009. *Tools for evaluating local play provision: A technical guide to Play England local play indicators* [pdf]. Available at: <https://www.bl.uk/collection-items/tools-for-evaluating-local-play-provision-a-technical-guide-to-play-england-local-play-indicators> [Accessed 02 August 2021].

Table 4.11: Average play provision overall score by sub-area

Sub-area	Average overall score (%)
Rural South	64.44
Central	50.08
Urban North	56.11

4.63 **Table 4.12** displays the value/location score by sub-area, the mean average % score for quality is 55.23%. Combined location/value refers to considerations such as accessibility including the Equality Act (2010), safety and security, extent of use, provision of equipment, challenging play and movement incorporating natural features. Similarly the Rural South scores the highest overall for value/location and in descending order the Urban North and Central follow.

Table 4:12: Average play provision value/location score by sub-area

Sub-area	Average value/location score (%)
Rural South	61.11
Central	49.30
Urban North	55.28

4.64 **Table 4.13** details the average quality scores by sub-area, the mean average % score for quality is 63.45%. Quality in brief terms refers to care and maintenance of play equipment and surrounds. The Rural South scores the highest in all three categories including for quality and regarding this aspect in descending order the Urban North and Central follow.

Table 4.10: Average play provision quality score by sub-area

Sub-area	Average quality score (%)
Rural South	77.78
Central	53.18
Urban North	59.40

5 PROPOSED OPEN SPACE STANDARDS

5.1 This section introduces the proposed open space provision standards, which reflect the site audits described in **Section 4**, plus the stakeholder engagement described in the previous section. In addition there is consideration of nationally recognised provision standards, and those adopted by neighbouring and comparable local authorities as identified within **Appendix 5**. Three key types of open space standard include:

- **Accessibility:** The maximum distance that users can reasonably be expected to travel to each type of open space.
- **Quantity:** The Provision of hectares or sites per 1000 people to be provided as a minimum. Shortfalls and surplus can be identified for communities based on differing population projections.
- **Quality and Value/Location:** The quality and value/location score expected for each type of open space and hierarchy drawing on the Green Flag Award scheme criteria and Play England guidance. A model (good) representative site is selected where possible for a local aspirational and achievable threshold or benchmark. General considerations include condition, functionality, facilities, safety and security, accessibility (including disabled access) and extent of use.

Proposed open space accessibility and quantity standards

5.2 **Table 5.1** sets out the accessibility and quantity standards for open space provision in NULBC. The proposed maximum distance that users can reasonably be expected to travel to reach each type of open space is presented as an accessibility catchment or buffer around the open space. **Figures 5.1 – 5.7** show the accessibility catchments to each type and hierarchy of open space within the borough.

5.3 Unless otherwise stated within **Table 5.1** the quantity standards are derived from the existing level of publicly accessible open space provision. This is deemed to be realistic and achievable with expected population growth.

Table 5.1: Proposed open space accessibility and quantity standards with justifications

Open space typology/hierarchy	Quantity standard where applicable with justifications (Ha per 1000 population; 2020 NULBC Population: 129,610)	Accessibility standard with justifications
Allotments		
Allotments	0.12 (National Society of Allotment and Leisure Gardeners (NSALG) suggested national standard of 0.125 ha per 1,000 head of population)	1.2km (15 minute walk, no national standard currently set)

Open space typology/hierarchy	Quantity standard where applicable with justifications (Ha per 1000 population; 2020 NULBC Population: 129,610)	Accessibility standard with justifications
Amenity greenspace		
Amenity greenspace	0.98	280m
Cemeteries and churchyards		
Cemeteries and churchyards	N/A (It is not appropriate to set provision standards for cemeteries and churchyards as their demand is determined by requirements for burial space)	N/A (Proximity not a requirement. Cemeteries and churchyards cannot be easily influenced through planning policy and are primarily within established locations)
Green corridors		
Green corridors	N/A (It is not appropriate to set provision standards for green corridors because of their linear nature and their need arises from the requirement to promote environmentally sustainable forms of transport and connectivity)	N/A (Proximity not a requirement. Green Corridors cannot be easily influenced through planning policy and implementation and they tend to be opportunity-led rather than demand-led)
Natural and semi-natural greenspace (Hierarchy derived from CABE[16])		
Sub-Regional (60-400ha)	1.80 **NB** *The Guidance for Outdoor Sport and Play (2020)*[17] document proposes a quantity standard of 1.80 ha per 1000 head of population.	3.2km
District (20-59ha)		1.2km
Local (2-19ha)		400m
Small Local (<2ha)		280m
Parks and gardens (Hierarchy derived from CABE)		

[16] CABE, 2009. *Open Space Strategies: Best Practice Guidance* [pdf]. Available at: <https://www.designcouncil.org.uk/sites/default/files/asset/document/open-space-strategies.pdf>. [Accessed 04 August 2021]

[17] Fields in Trust, 2020. *Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard: England.* [pdf]. Available at: <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-England.pdf>. [Accessed 03 August 2021]

Open space typology/hierarchy	Quantity standard where applicable with justifications (Ha per 1000 population; 2020 NULBC Population: 129,610)	Accessibility standard with justifications
Sub-Regional (60-400ha)	0.80 **NB** *The Guidance for Outdoor Sport and Play (2020)*[18] document proposes a quantity standard of 0.80 ha per 1000 head of population. This is just above existing Local Parks and Gardens provision level	3.2km
District (20-59ha)		1.2km
Local (2-19ha)		400m
Small Local (<2ha)		280m
Provision for children and teenagers		
Neighbourhood Equipped Area for Play (NEAP)	0.349 ha per 1000 population (age group 19 and under) **NB** 2020 NULBC Population for 19 and under age group: 27,106. *The Guidance for Outdoor Sport and Play (2020)*[19] document proposes a quantity standard of 0.25 ha per 1000 head of population.	600m straight line (10 minute walk, derived from recent Field in Trust and Play England guidance); 1000m walking distance
Local Equipped Area for Play (LEAP)		240m straight line (5 minute walk, derived from recent Field in Trust and Play England guidance); 400m walking distance
Local Area for Play (LAP)		60m straight line (1 minute walk, derived from recent Field in Trust and Play England guidance); 100m walking distance

Sub-Regional Access

5.4 **Figure 5.1** highlights the accessibility catchments for the sub-regional hierarchy of provision which relates to natural and semi-natural greenspace and parks and gardens. It can be seen that there is good coverage throughout the borough and settlements which highlight their importance for providing open space to Newcastle-under-Lyme's communities. The parks and gardens typology are located to the north of the borough

[18] Fields in Trust, 2020. *Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard: England.* [pdf]. Available at: <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-England.pdf>. [Accessed 03 August 2021]

[19] Fields in Trust, 2020. *Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard: England.* [pdf]. Available at: <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-England.pdf>. [Accessed 03 August 2021]

with a lack of parks and gardens provision and associated amenities within the Rural South. There are deficiencies at this scale primarily at Madeley and Betley.

District Access

5.5 **Figure 5.2** similarly identifies there is a generally good distribution of this level of hierarchy within the borough. Noticeable deficits include the northern extents of Urban North, north east of Rural South at Maer and Whitmore and localised areas at the borough margins. Parks and gardens are primarily located within the east of the borough.

Local to Small Local Access

5.6 **Figures 5.3 – 5.4** highlight the accessibility catchments of local and small local levels of the hierarchy respectively. There is a good distribution throughout the borough with some clusters of provision around key settlements. Parks and gardens are largely located within the Urban North.

Allotments Access

5.7 **Figure 5.5** outlines a varied picture in terms of allotments accessibility catchments. Areas of the Rural South appear to lack provision and particularly at Maer and Whitmore and areas west of the Central sub-area. It is worth noting that allotments generally had limited public access by definition and virtue of their land use and membership.

Amenity Access

5.8 **Figure 5.6** displays the amenity accessibility catchments which are primarily within the north east of the borough within the Urban North. There are pronounced deficits in the Rural South and limited provision in the Central sub-area.

Provision for Children and Teenagers Access

5.9 **Figure 5.7** highlights the generally good distribution of equipped play provision within the borough. There are deficits within the western half of the Central sub-area and notable deficiencies in the Rural South.

Figure 5.1: Sub-Regional: Accessibility Catchments

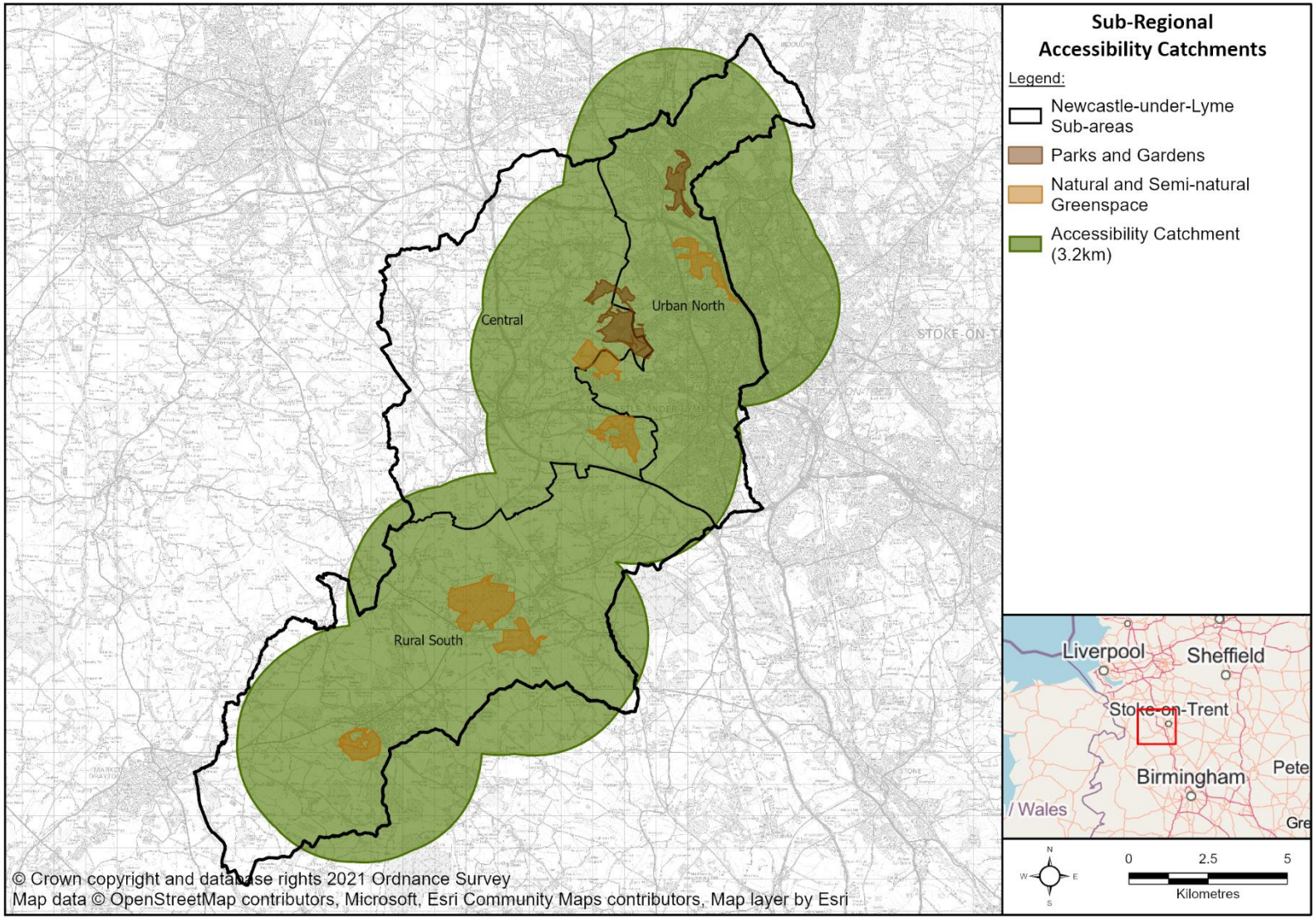


Figure 5.2: District: Accessibility Catchments

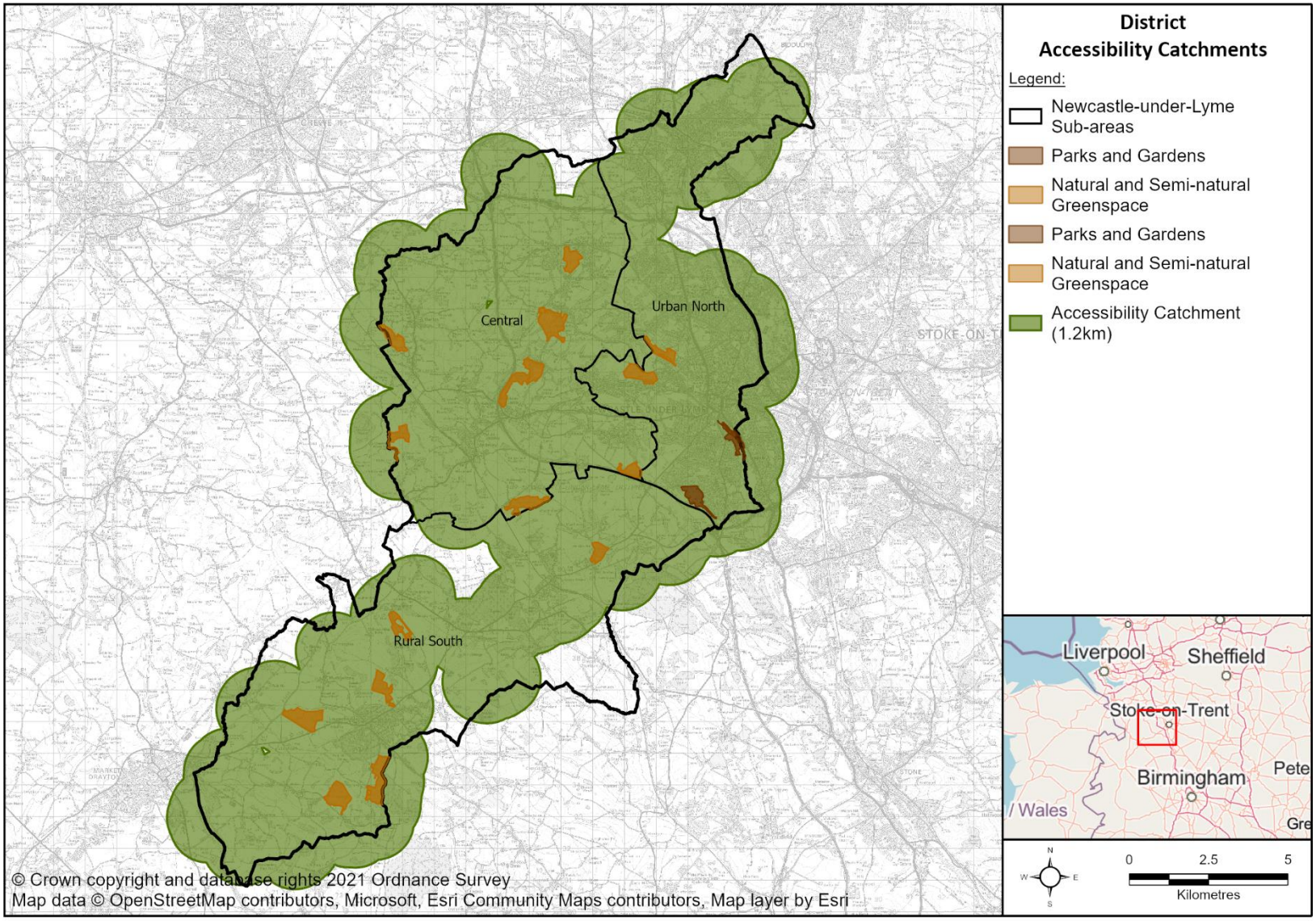


Figure 5.3: Local: Accessibility Catchments

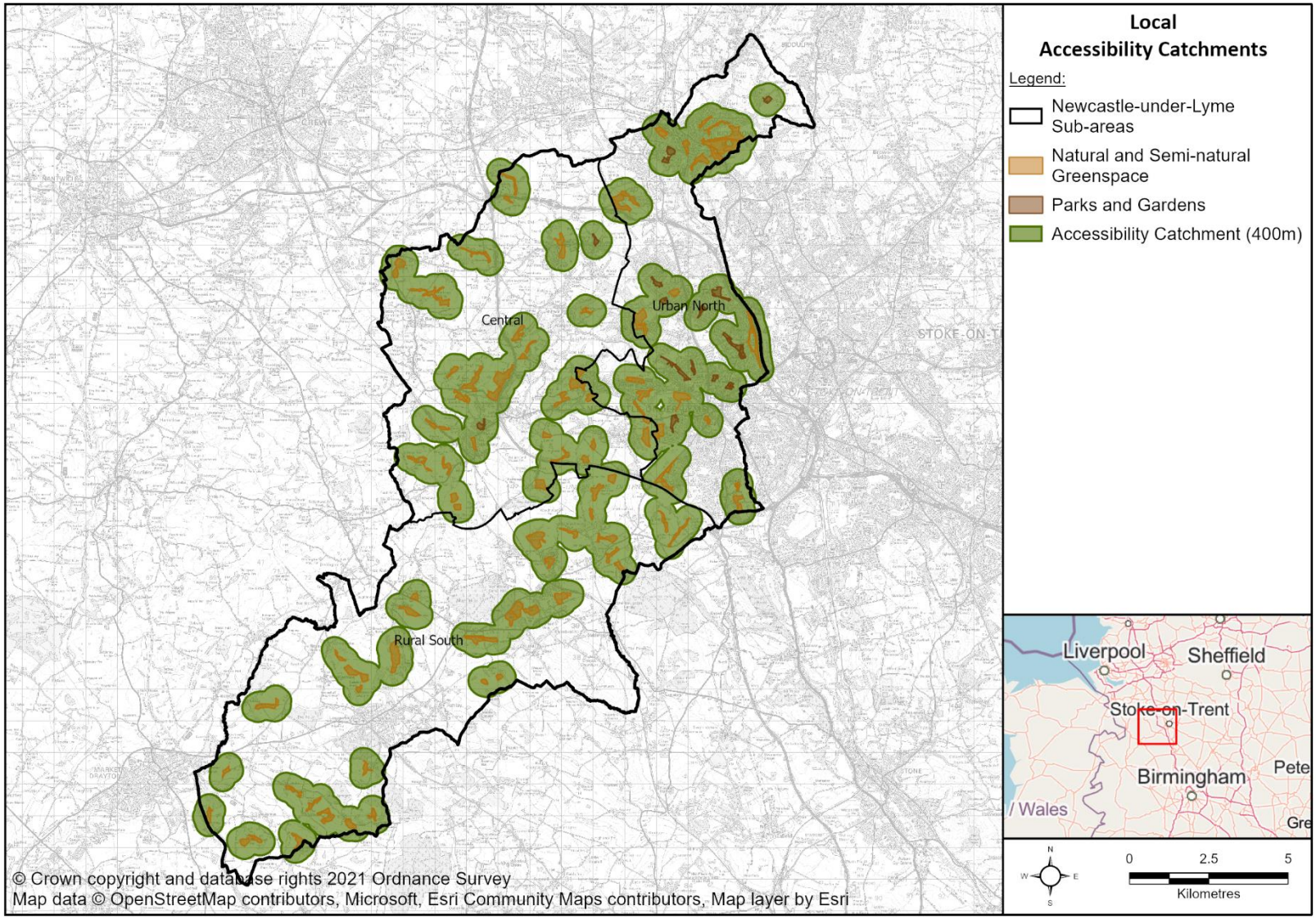


Figure 5.4: Small Local: Accessibility Catchments

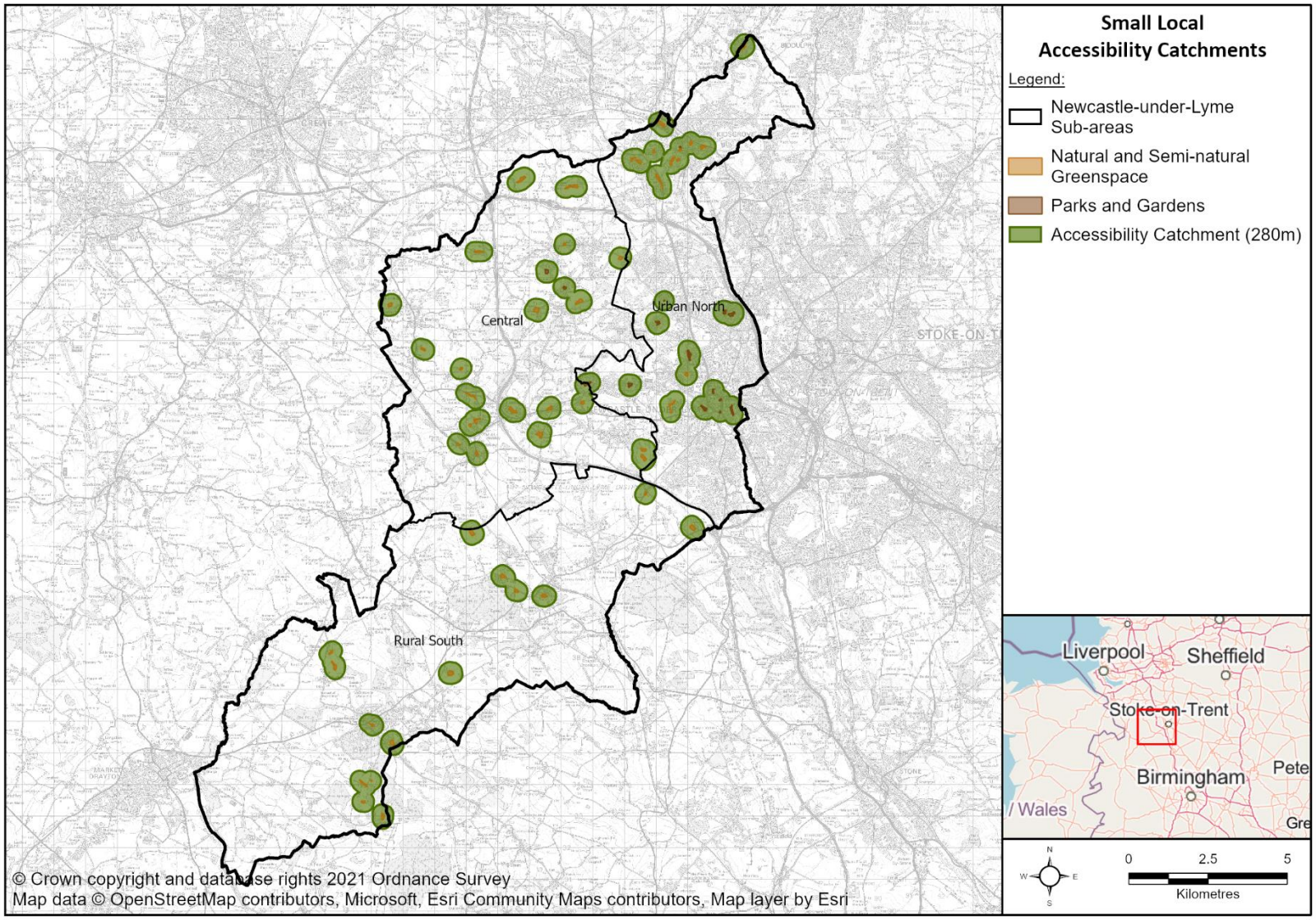


Figure 5.5: Allotments: Accessibility Catchments

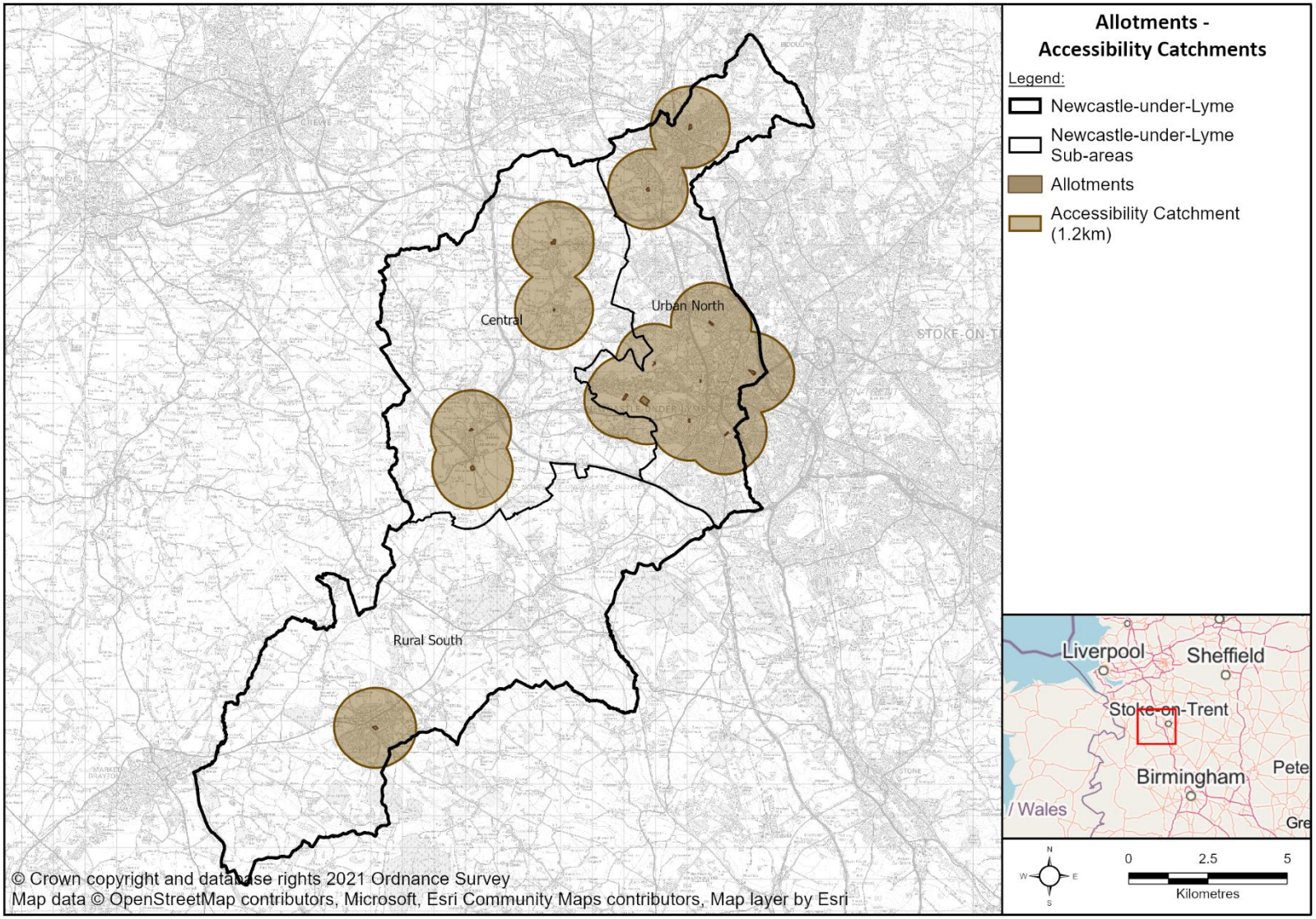


Figure 5.6: Amenity Greenspace: Accessibility Catchments

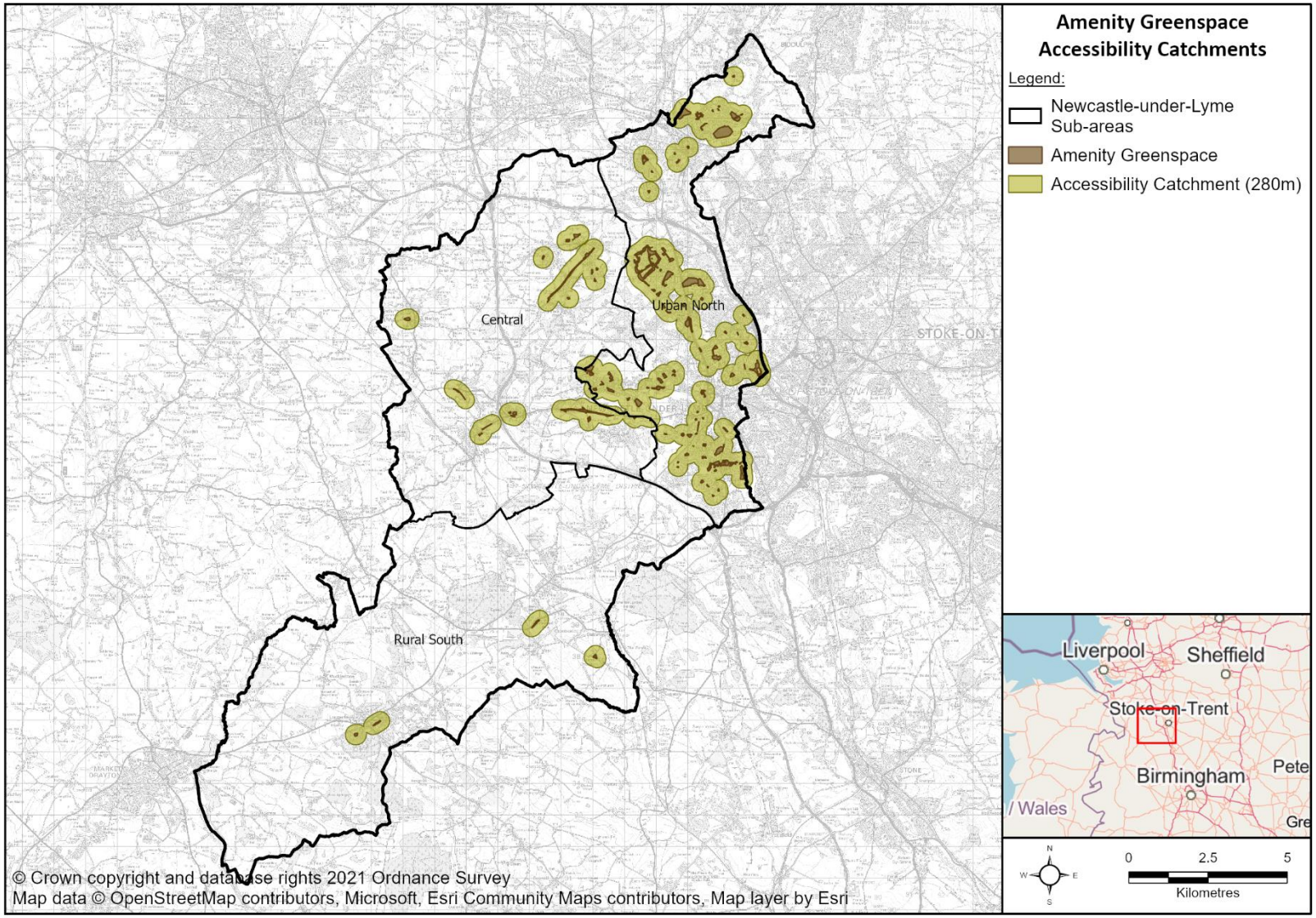
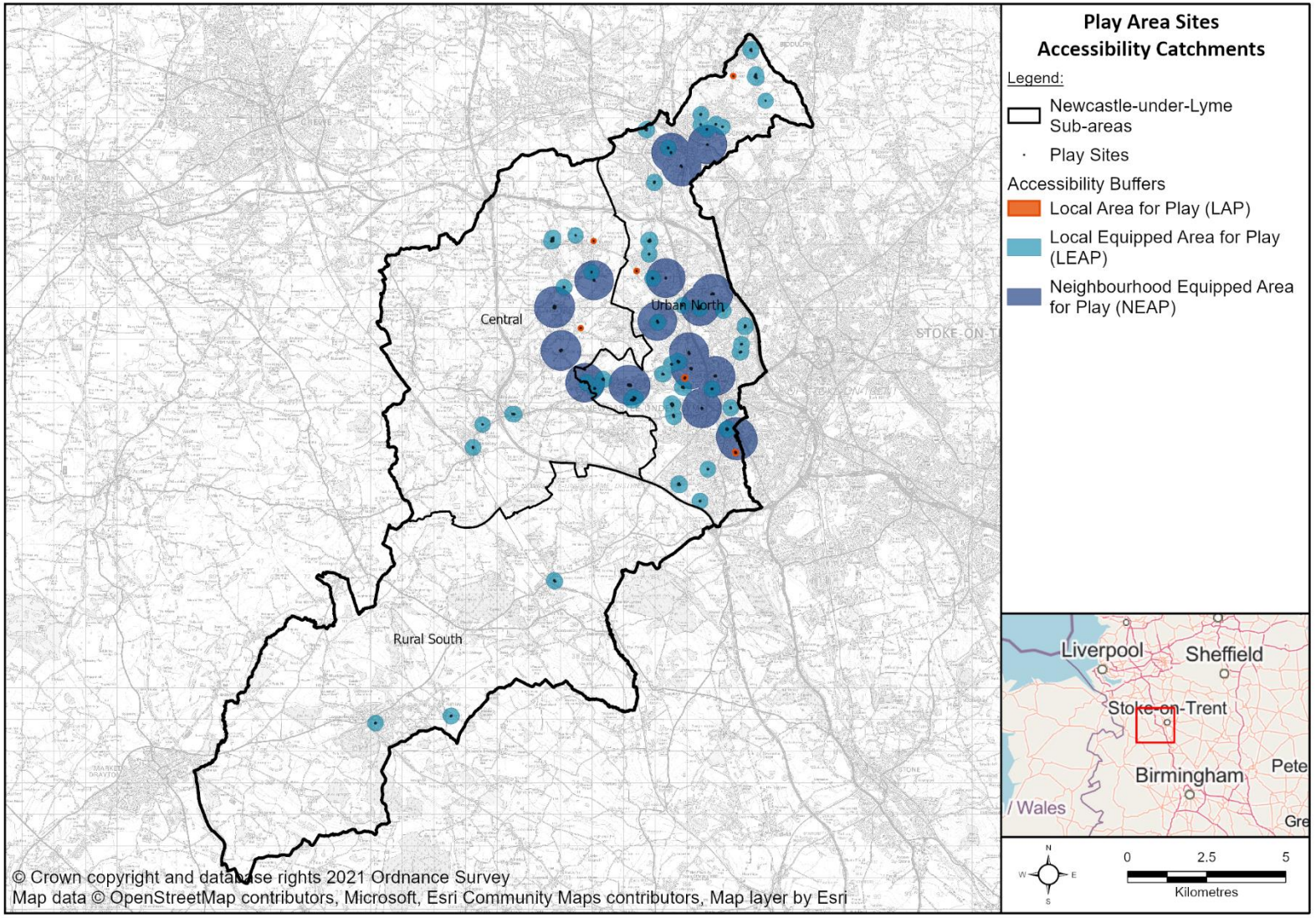


Figure 5.7: Play Area Sites: Accessibility Catchments



Proposed open space quality and value/location standards

Scoring and ratings

5.10 In establishing the quality and value/location standards it is worth highlighting how the scores and locally derived benchmark scores are established and their implications.

5.11 Quality scores within the audit form are derived from aspects of care and maintenance and the Green Flag Award themes. Value scores relate to themes such as context/designations, easy access, providing a range of facilities, habitats, play provision, education and amenity provision. A model (good) representative site is selected where possible for a local aspirational and achievable threshold or benchmark.

5.12 The proposed quality and value/location standards are set out in **Table 5.2**. Quality and value standards have not been set for sports provision. These standards inform the rating system indicated in the following **Table 5.3**.

Table 5.2: Proposed open space quality and value standards

Open space typology/hierarchy	Proposed quality standard (score)	Proposed value standard (score)	Good quality model site	Good value model site
Allotments				
Allotments	39	16	Manor Road Allotments	Manor Road Allotments
Amenity greenspace				
Amenity greenspace	25	21	Land off Mill Rise	Cedar Road Open Space
Cemeteries and churchyards				
Cemeteries and churchyards	47	18	Madeley Cemetery	Holy Trinity Church
Green corridors				
Green corridors	30	23	Linear route north of B5044	Linear route north of B5044
Natural and semi-natural greenspace				
Sub-Regional (60-400ha)	37	26	Bradwell Wood	Bradwell Wood
District (20-59ha)	25	23	Alder and Springpool Wood	Walton's Wood
Local (2-19ha)	21	19	Parrot's Drumble	Linley Road Estate Woodland

Open space typology/hierarchy	Proposed quality standard (score)	Proposed value standard (score)	Good quality model site	Good value model site
Small Local (<2ha)	21	19	Brickkiln Plantation	Brickkiln Plantation
Parks and gardens				
Sub-Regional (60-400ha)	68	37	Bathpool Park	Apedale Community Park
District (20-59ha)	83	76	Lyme Valley Parkway	Lyme Valley Parkway
Local (2-19ha)	43	29	Bradwell Dingle	Brampton Park
Small Local (<2ha)	45	27	Queens Gardens	Queens Gardens
Open space typology/hierarchy	**Proposed quality standard (score %)**	**Proposed value & location standard (score %)**	**Good quality model site**	**Good value model site**
Provision for children and teenagers				
Neighbourhood Equipped Area for Play (NEAP)	77.8%	63.9%	Silverdale Park Play Area	Silverdale Park Play Area
Local Equipped Area for Play (LEAP)	77.8%	63.9%	Whitmore Play Area	Whitmore Play Area
Local Area for Play (LAP)	55.6%	48.5%	Alsagers Bank Play Area	Alsagers Bank Play Area

5.13 The aspirational and achievable threshold or benchmark score helps to ascertain whether certain sites achieve the required scores in respect of quality and value and subsequent ratings. The following key recommendations for actions based on the rating system are outlined in **Table 5.3**.

Table 5.3: Quality and Value/Location ratings and proposed key actions

Rating	Proposed key actions
High Quality/High Value (HQ/HV)	These sites should be protected and they represent good open space sites. High standards should continue to be met to provide suitable open space for surrounding communities.

Rating	Proposed key actions
High Quality/Low Value (HQ/LV)	Preferred policy approach should be to protect site and enhance its value. Value (including access) should be enhanced appropriately in reference to the primary typology. Alternatively a review should be conducted of whether the site should be classified as an alternative typology to enhance its value.
Low Quality/High Value (LQ/HV)	Preferred policy approach should be to protect the site and enhance its quality. Care and maintenance standards and Green Flag Award themes appropriate to the primary typology should be reviewed to drive up standards. If there are a surplus of sites within that typology, and the site is not required to remedy a deficiency in another typology, disposal of the site with the lowest value should be considered.
Low Quality/Low Value (LQ/LV)	These sites should have options for improving their quality and value (including access) reviewed as a priority particularly if there are identified shortfalls. If there are a surplus of sites within that typology, changing the site to another typology should be considered. If there is no shortfall in other typologies, the open space may be surplus to requirements and alternative use should be considered.

Application of open space quantity standards by sub-area

5.14 **Table 5.4** set out the results of applying the proposed quantity standards in 2020 and 2040. A worked example of how calculations are obtained for levels of provision of open space by hectares per 1000 population are set out within **paragraph 4.13**. Current provision is shown against the standard in each of the sub-areas and expected borough-wide provision in 2040. The cells which have figures and are uncoloured fall below the quantity standard and those in green are above the quantity standards. The 2020 population figures of 129,610 can be utilised. These figures are from the most recent 2020 Mid-Year Estimates from The Office of National Statistics (ONS)[20] which can breakdown the populations by current ward and therefore sub-area. A projected 2040 population figure of 140,468 can be obtained from population projections for local

[20] Office for National Statistics Website, 2021. *Ward Level Mid-Year Population Estimates*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/wardlevelmidyearpopulationestimatesexperimental> [Accessed 19 October 2021]

authorities using the 2018 based edition from The Office of National Statistics[21]. Accurate population data for wards within 2040 is unable to be obtained currently therefore a NULBC total is provided.

5.15 Three housing growth scenarios are also provided for 2040 and include 350 per annum with standard modelling. Other modelling is highlighted at 410 per annum with Experian baseline and 445 per annum with Experian plus. The average household occupancy rate in the UK of 2.4 persons per dwelling as derived from The Office for National Statistics[22] data which can be multiplied as appropriate to these statistics. Provision for children and teenagers based on age groups of 19 and under are unable to be confidently calculated for standard, Experian and Experian plus projections. This is due to unavailable robust baseline data per dwelling available for these age groups

5.16 The calculations consider recently publicly accessible sites, therefore in some instances there is scope for improving accessibility at existing sites to alleviate any deficiencies. Where there are deficiencies it will be important when considering new development to secure new open spaces within these areas.

5.17 At a borough level there is enough open space on the whole to meet the needs of future population growth and this is due to greater levels of provision of parks and gardens and natural and semi-natural greenspace. However there are surplus and deficits of provision by typology as described below.

Allotments

5.18 Application of the standards within this typology show that the Rural South and Central sub-areas are currently performing above the quantity standard. The Urban North sub-area and 2040 projections highlight deficiencies within this typology. Allotments have managed tenancies and the audit suggests some areas varied between being open access to being highly secure with fencing and gates within secluded areas. Potentially there could be a review of whether access could be improved to reach any secure entrances where applicable or reviewing other site security measures and site surveillance options.

Amenity greenspace

5.19 There is generally good provision of the typology and performance above the quantity standard within the borough in 2020. The exception is within the Rural South where there is a noticeable deficit. In 2040 the borough as a whole falls below the quantity standard and further provision required.

Natural and semi-natural greenspace

5.20 There is a large quantity of natural and semi-natural greenspace within the borough and appropriate Fields in Trust standards have been applied. Therefore all sub-areas, the borough and 2040 projections highlight good performance against the standard. The

[21] Office for National Statistics Website, 2021. *Population Projections for Local Authorities*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/datasets/localauthoritiesinenglandtable2> [Accessed 19 October 2021]

[22] Office for National Statistics Website, 2021.*Families and Households in the UK: 2020*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2020> [Accessed 19 November 2021]

Urban North has a reduced provision of this typology however still performs above the quantity standard.

Parks and gardens

5.21 Similar to natural and semi-natural greenspace the majority of the sub-areas, borough and 2040 projections perform above the quantity standards given appropriate Fields in Trust standards have been applied. The exception is the Rural South where no specific parks and gardens have been recorded and likely further provision is needed.

Provision for children and teenagers

5.22 Generally there is good provision for children and teenagers within the borough and particularly within the Central sub-area. There are deficits within the Rural South. The 2040 Projections indicate shortfalls within the borough and further provision is required.

Table 5.4: Application of the quantity standards

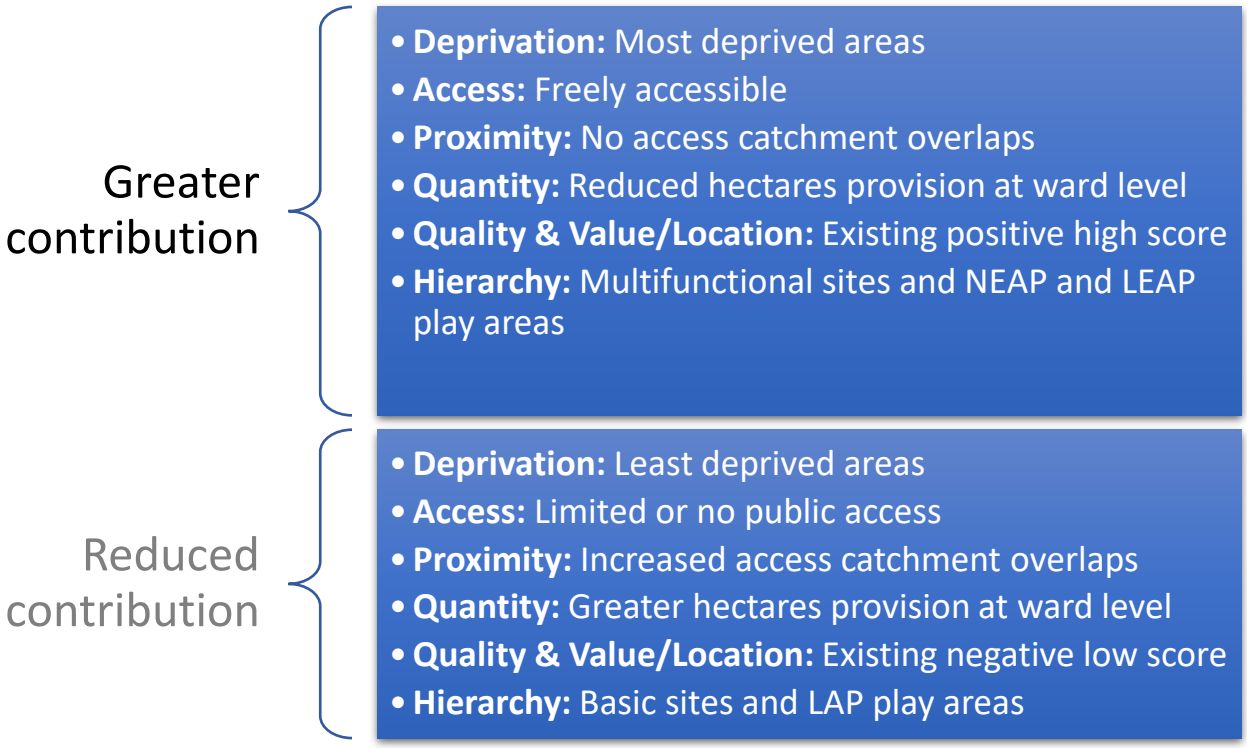
Open space typology	Proposed standard (Ha per 1000 population)	2020 (Ha per 1000 population)				2040 (Ha per 1000 population)			
		NULBC (Borough)	Rural South	Central	Urban North	NULBC (ONS)	NULBC (Standard)	NULBC (Experian Baseline)	NULBC (Experian Plus)
Allotments	0.125	0.117	0.157	0.167	0.104	0.108	0.103	0.101	0.100
Amenity greenspace	0.98	0.98	0.45	1.10	0.99	0.90	0.86	0.85	0.84
Natural and semi-natural greenspace	1.80	8.89	55.15	27.44	2.30	8.20	7.87	7.72	7.63
Parks and gardens	0.80	2.87	0	9.40	1.85	2.65	2.54	2.49	2.46
Provision for children and teenagers (per 1000 population: age group 19 and under)	0.349	0.349	0.207	0.450	0.338	0.337	-	-	-

Application of open space accessibility, quality and value/location standards

5.23 **Appendix 4** shows a list of sites with their quality and value/location ratings and **Table 3.1** defines the quality and value ratings and subsequent proposed key actions.

5.24 A contribution criteria for strategic decision making is set out in **Figure 5.8** below and these refer to accessibility catchments. A number of considerations are highlighted which contributes to the local community and it outlines an indicative sliding scale from those aspects which lead to reduced contributions to greater contributions for the community. This should be referred to as a general guide alongside the completed site audits, quality and value ratings and key actions plus **Figures 5.1 - 5.7** which portray the accessibility standards that highlights deficiencies in access to open space provision. These considerations are useful in helping to guide NULBC future open space provision, establish priorities and target investment. These steps will also help to determine contribution levels and therefore help to inform NULBC's strategic decisions over whether certain open space areas should be retained, created, removed, modified or enhanced.

Figure 5.8: Contribution criteria of open space



6 OPEN SPACE STRATEGY AND RECOMMENDATIONS

6.1 This section introduces the open space strategy for NULBC to 2040. Key themes of relevance are presented, along with the statement setting out the open space strategy. This is supported by key recommendations and the proposed policy approach for open space provision during the plan period, plus suggested arrangements for monitoring and review of this strategy during the life of the Local Plan.

Vision

6.2 NULBC recognises the importance of open space to the environment and the health and well-being of its residents. NULBC is therefore committed to ensuring all residents are able to access high quality and high value open space provision. Subsequently NULBC's vision for open space provision is as follows:

"Open space and play experiences are fundamental to the health and development of adults, children and young people. Newcastle-under-Lyme Borough Council will therefore seek to ensure all residents are able to access high quality and high value open space. We will work with town and parish councils, together with other providers, to create multifunctional and attractive open spaces which offer a diverse connected mosaic of habitats and provide recreation opportunities for all ages and abilities".

Funding

6.3 Within the current economic climate there is greater pressure from increasing budget demands. Regeneration and new development require high quality and value open space to meet future needs. Large scale and targeted ring-fenced investment, capital and revenue are ideally required for local authorities. However currently grants, section 106 and the Community Infrastructure Levy (CIL) are the typical sources of investment for open space. On-site and off-site provision should be provided depending on the extent of the development, existing and proposed provision within the area and site constraints, context and condition.

6.4 It's important to consider options to support the day-to-day maintenance operations and one-off improvement projects. A range of external funding schemes that could be used to support the maintenance and enhancement of open space areas are described in the following paragraphs.

Funding and developer contributions

Section 106 Planning Obligations

6.5 NULBC receives funding for open space improvements through the collection of 'Section 106 planning obligations and contributions'. Section 106 planning obligations or 'commuted sums' are legal agreements negotiated by the local planning authority with the developer (or landowner) of a proposed development. In relation to the provision of open space, commuted sums must be spent on improvements at existing sites at or close to the development that gave rise to the funding. Recommendations in compliance with

the relevant planning policy are put to the appropriate committee. Commuted sums in the form of Section 106 are critical to the enhancement and development of open space across the borough. Contributions secured through Section 106 can be used as match funding to support the delivery of larger projects. If a developer is required to provide and maintain an open space it is expected that a management plan for the open space would be submitted and approved by the council within the S106 agreement.

6.6 Section 106 planning obligations sit alongside the Community Infrastructure Levy (CIL), described below, but will be restricted to the infrastructure required to directly mitigate the impact of a proposal. Further information on Section 106 planning obligations is available on the Newcastle-under-Lyme website. As stated, the most common obligations include: *"public open space; affordable housing; education and highways."*

Community Infrastructure Levy

6.7 Enhancement projects for open space can potentially be funded through the collection of CIL, dependent on the priorities set for an area, although CIL is not a route currently used or planned in NULBC. CIL charges are based on simple formulae that relate to the size and character of the associated development. The proceeds from the levy can be spent on local and sub-regional infrastructure, including parks and play areas. The funding may be directed to parish and town council's to deliver projects within their jurisdiction.

Other funding considerations

Grants

6.8 Various grant finding tools and initiatives are available which aim to support environmental, community and heritage enhancements including Grantfinder, Funds Online (broken down into Government, European, lottery and trust funds), Charity Excellence Framework, Association of Play Industries, the Heritage Funding Directory and the National Lottery Heritage Fund.

6.9 Ward member grants and charitable trust funds involve Ward Members holding a fund which may be used to support projects within their ward and increasingly used within local authorities.

Landfill Communities Fund

6.10 The Landfill Communities Fund is a tax credit scheme which enables landfill operators to support the delivery of community projects. The Fund is available to community groups, charities and other voluntary organisations. The Fund is not available to local authorities or parish and town councils however Friends groups have the potential to support the management and enhancement of open space provision in NULBC, through raising funds for capital investment. Petrol companies, big supermarkets and local big companies may also run grant schemes or provide support.

Events and concessions

6.11 Particularly for the larger multi-functional spaces such as parks and gardens regular income can be derived. Depending on the scale of events there may be some additional costs and measures through pre and post event monitoring and reinstatement and protection practices.

Sponsorship

6.12 Corporate sponsorship is increasingly used to secure income for the management of open space sites. Companies can boost their corporate social responsibility credentials and they can engage their employees, clients or customers with on-the-ground activity in the communities in which they operate. The Land Trust has been working with the private sector to create new green spaces. Typically developers or other companies that want to create a new green space approach the trust and give an endowment that the trust invests to pay for maintenance.

Impact investment

6.13 Investments (non-Philanthropy) made with the intention of making a positive, measurable social and environmental impact in tandem with a financial return. Local authorities may have to release some control over projects in return for investment.

Policy performance bonds (PPBs)

6.14 Government bonds where are interest payments are linked to the delivery of an environmental policy specific target. This may relate to flood protection for example.

Green equity

6.15 Ownership or usage rights where green infrastructure is structured into investable modules such as biodiversity offsets and sustainable drainage systems (SuDs).

Crowd-funding

6.16 Using the internet pooling interested people together to invest small amounts of money in a project. Programmes can be equity based or philanthropic based (no return is expected). It can be a good way to engage communities.

Green loans and bonds

6.17 Loans offered by banks and bonds by national governments and private corporations linked to positive environmental targets or benefits.

Other recent environmental funding support and schemes

6.18 Given the recent Government aims for a "Green Recovery" a range of additional funding streams and initiatives have developed which may be worth exploring within NULBC including rounds of the Greener Recovery Challenge Fund, Nature for Climate Fund, Local Authority Treescapes Fund, the Queen's Green Canopy Project, the HS2 Woodland Fund and Plant for our Planet schemes. Landscape scale and corporate rewilding can also assist with biodiversity net gain to obtain planning permission, offset carbon emissions and return sites to nature while providing an income[23].

6.19 A range of public funding for tree planting, woodland creation and forestry has existed in various forms for many years. Government policy is to continue public subsidies to farmers and landowners under the EU's Common Agriculture Policy (CAP) until they're replaced by post-Brexit policies. By 2028 all land-based payments should be replaced by farm payments conditional on positive outcomes for our environment, described as "public money for public goods". Tree planting and positive environmental interventions may also be funded from other sources such as the new Environment Land Management

[23] https://www.rskwilding.com

Scheme, which will replace direct payments to farmers and landowners, funding for Natural Flood Management and for the Nature Recovery Network proposed for England. Proceeds from carbon credits and other natural capital valuation mechanisms, such as Payments for Ecosystem Services and Biodiversity Net Gain, may also provide some funding.

6.20 Various online tools and spreadsheets are available for natural environment valuation and a natural capital approach including: B£ST, OrVAL, NEVO, Greenkeeper, Health Economics Assessment Tool for Cycling and Walking (HEAT), i-Tree, Local Environment and Economic Toolkit (LEET) and the Forestry Commission Woodland Valuation Tool.

Delivering new provision and enhancements to existing provision

6.21 The future provision of open space in NULBC will be guided by locally derived standards as set out in **Tables 5.1 - 5.2**. The standards aim to ensure any deficiencies are met, as well as providing for an increase in population with development.

Quantity

6.22 The recommended standards are expressed as hectares of open space per 1000 people. The purpose of the standards is to ensure that NULBC's residents can access a network of open spaces of different sizes and that the quality of spaces is maintained or enhanced.

6.23 The quantity standard of **3.58 ha of open space per 1,000 head of population** reflects the existing provision of open space within NULBC and considers *The Guidance for Outdoor Sport and Play (2020)*[24] document. New development should ensure that this standard continues to be met. Residents should also have access to **0.12 ha of allotments per 1,000 head of population and 0.349 ha of equipped play area provision per 1,000 head of population (age group 19 and under)**. These quantity standards are locally derived and deemed to be realistic and achievable.

6.24 Sufficient supply or under supply of open space for each agreed sub-area or ward can be calculated based on these standards. The amount of open space required for the increased population can also be calculated using the quantity standards. The use of the quantity standards should be considered alongside the access standards to ensure gaps are limited.

Access

6.25 Typically standards are expressed as straight line walking distances. **Figures 5.1 - 5.7** show deficiencies and potential over supply of facilities. This information can be used alongside the quantity standards to determine if new provision of a particular typology should be provided or improved accessibility is required. These gaps may be met by a residential development.

[24] Fields in Trust, 2020. *Guidance for Outdoor Sport and Play: Beyond the Six Acre Standard: England.* [pdf]. Available at: <https://www.fieldsintrust.org/Upload/file/guidance/Guidance-for-Outdoor-Sport-and-Play-England.pdf>. [Accessed 03 August 2021]

Recommendations for local policy on open space provision

6.26 Based upon the authors' past experience of similar strategies, the following recommendations have been put forward.

Open space

6.27 Contributions towards new provision or improvements to existing open space sites will be required from residential development where there are identified local deficiencies in the quantity, accessibility, quality, value or location of open space facilities.

6.28 A number of factors affect the extent of the contribution levels including the size of development, and the number and types of dwellings, as well as the existing open space provision in the vicinity of the proposed development.

6.29 Large residential developments of over 10 dwellings will be expected to provide on-site open space, unless the site is in a location, such as a town centre, where a financial contribution to off-site provision may be considered more appropriate. For smaller residential developments, of up to about 10 dwellings, where there are limitations on providing satisfactory on-site provision, a financial contribution to off-site provision may also considered more appropriate for part or all of the open space requirement. Off-site provision must be of equivalent value to on-site provision.

6.30 On-site provision for amenity green space and natural and semi-natural greenspace will be sought for developments of 10 dwellings or above. On-site provision of allotments and parks and gardens is normally sought on schemes of 250 or more dwellings.

6.31 There are a number of options for future management of new open spaces or play areas. These include transfer to and maintenance in perpetuity by a management company or, if agreed, the local Town or Parish Council, subject to payment of a commuted sum. Appropriate adoption arrangements would normally be agreed as part of the planning condition process.

Play areas

6.32 The locally derived play area standards within **Table 5.1** will apply to proposals of over 10 dwellings which should be delivered on site where feasible. On smaller residential developments, of up to about 10 dwellings or within town centres, because of the limitations on providing satisfactory on-site provision, part or all of the play area may be best provided for in the form of a financial contribution, of equivalent value to on-site provision, towards the enhancement and management of play areas.

6.33 In assessing the requirement for play space provision, this will be based on the number of properties with two or more bedrooms in the proposed scheme. The requirement for any proposed developments will be based on the current provision stated as part of the Open Space Strategy. For example, if a scheme is located within 240m of an existing LEAP, then a commuted sum could be provided to upgrade that facility to meet the additional demand from the new development. In some cases it may be appropriate for youth or adult equipment such as outdoor gyms or trim trails to be provided.

6.34 Areas should be set out and located so as to minimise annoyance to nearby occupiers, maximise children's safety and be visible from neighbouring properties.

Protection or disposal of open space

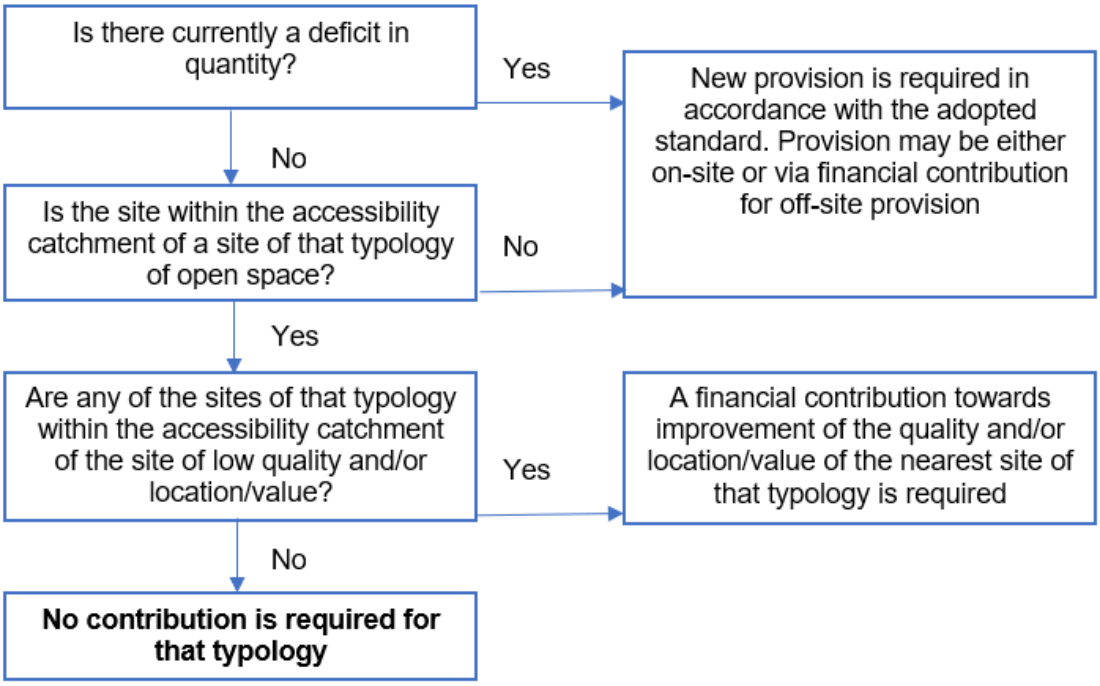
6.35 It is recommended that NULBC aim to protect existing open spaces in line with the NPPF. As part of this recommendation, an assessment for the loss of any open space should be made, as per paragraph 99 of the NPPF. Such assessments should draw on the latest NULBC Open Space Strategy and existing provision. Reference can be made to the contribution criteria within **Figure 5.8** and the findings and recommendations of the site audits for strategic decisions over whether certain open space areas should be retained, removed, modified or enhanced**.** Alongside this development proposals that would result in the loss of open spaces will be granted provided that the criteria stated in paragraph 99 of the NPPF (as above) are met, including that the loss resulting from the proposed development would be replaced by equivalent or better provision in terms of the standards in **Table 5.1**.

Open space contributions and calculations

Process for determining contributions

6.36 **Figure 6.1** shows a process for assisting in determining next steps for contributions and new provision. Priorities can also be obtained in cross reference to the contribution criteria within **Figure 5.8**.

Figure 6.1: Process for determining contributions within a locality



Calculating on-site and off-site contributions

6.37 The requirement for open space should be partly based upon the estimated population of the proposed development, using the average household occupancy rate in the UK of

2.4 persons per dwelling as derived from The Office for National Statistics[25] data. On this basis for each typology the following calculation can be used:

(Number of dwellings x 2.4) x Local standard/1000 = Hectares required for proposed development

6.38 Where it is not realistic for new provision to be provided on-site, it may be more appropriate to seek to enhance the existing quality of provision and/or improve access to sites. Standard costs for the enhancement of existing open space and provision of new open spaces should be clearly identified and revised on a regular basis by NULBC.

6.39 Costs can be derived from NULBC costings information and based on known industry standards/rates. Contributions towards the provision or improvement of open spaces can be calculated using the capital cost of provision. Contribution per person is taken to be a reasonable measure of impact irrespective of whether there is new provision or improvement of existing facilities and features. The *Cost of provision per m²* and *quantity standard m² per person* can be used to determine cost of provision per person. These calculations will be used to calculate developer contributions for on-site provision and where feasible any off-site projects.

Maintenance contributions

6.40 Where provision is made on-site, a financial contribution towards maintenance will be required unless private maintenance is proposed.

6.41 If a development is required to provide open space on-site, the developer will normally be expected to maintain the open space for an agreed minimum period (typically one year). For larger open space sites a management plan should have been submitted and approved by NULBC as a planning condition.

6.42 If the open space is to be adopted by the Council, a commuted sum may be accepted and arrangements made for management and maintenance of the open space through the council or third party. The amount payable for the commuted sum for the open space typologies will be calculated using the latest industry and contractor rates with appropriate inflationary uplift. Indicatively this may be in the region of £8.00 m² per annum for parks and gardens and equipped play areas. Allotments, amenity greenspace and natural and semi-natural greenspace tends to be under £2.00 m² per annum per typology.

Recommendations

6.43 To avoid over prescribing and to allow NULBC to make flexible up to date location-based decisions a combined Open Space and Green Infrastructure Action Plan has been set out in **Table 10.1** at the end of this strategy. This table provides a regularly reviewed toolkit primarily alongside the contribution criteria within **Figure 5.8**, the completed site audits and quality and value ratings and key actions. **Figures 5.1 - 5.7** portray the accessibility standards that highlights deficiencies in access to open space provision which can also be referred to.

[25] Office for National Statistics Website, 2021.*Families and Households in the UK: 2020*. Available at: <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2020> [Accessed 19 November 2021]

6.44 A summary of key considerations is set out below:

- A large proportion of residents are within the catchment area of a sub-regional scale natural and semi-natural greenspace or park and garden.
- There should be a focus on enhancing and improving the multifunctionality of the larger sub-regional open space sites. Multifunctional local scale open spaces and pocket parks should be provided within areas of higher levels of deprivation and where there are little open space catchment overlaps.
- There are localised accessibility catchment deficiencies particularly at the margins. Therefore it will be important to continue to work with the surrounding local authorities to ensure access to open space sites outside of the borough is secured for use by its residents.
- The Rural South has identified quantitative deficiencies of amenity greenspace, parks and gardens and provision for children and teenagers. The Urban North sub-area has a slight deficit in accessible allotment provision.
- In terms of allotments and accessibility catchments the Rural South shows deficits. Areas west of the Central sub-area and localised areas within the Urban North also appear to have deficits.
- Further assessment is needed of the location of allotments within wards, number, waiting lists and costs as this will provide a good indicator of need in particular wards. Where there are deficiencies there should be consideration of increasing plots within existing sites and seeking provision in the surrounding settlements.
- Amenity accessibility catchments are primarily within the north east of the borough within the Urban North. There are pronounced deficits in the Rural South and limited provision in the Central sub-area.
- Parks and garden provision is mainly located to the north of the borough with a lack of provision and associated amenities within the Rural South.
- There is a good distribution of equipped play provision within the borough. There are deficits within the western half of the Central sub-area and notable deficiencies in the Rural South. There is a deficit of provision for the teenager age group within the Rural South and borough as a whole which is normally provided for through NEAPs which was also confirmed through consultation.
- The equipped play provision sites could provide an improved location offering and they currently have limited play value when referring to the Play England criteria. Quality standards tend to be better across the borough however there are localised issue with care and maintenance standards. The Rural South has a greater score overall for aspects of play provision, this may be due in part to less intensive use. There may be opportunities to provide more natural play features at sites including within natural and semi-natural greenspace.
- A significant proportion of allotments (and other natural or semi-natural greenspace) had limited access or no access. This reflects the nature of allotment use and tenancies, therefore this may vary actual accessible provision levels within the sub-areas.

- There can be targeted improvements to quality and value through a range of measures including providing safe stable footways, wayfinding/signage, implementing appropriate site furniture, plus improved care and maintenance frequencies balanced with relaxed mowing/maintenance regimes to benefit the environment.

Evaluation

6.45 This brief section describes how the Open Space Strategy will be used and the arrangements for its ongoing review and monitoring.

Outcomes and benchmarks

6.46 At a national and increasingly local level following the pandemic, open space is recognised as being important to people and wildlife and in helping to achieve wider objectives including the development of healthy, vibrant and sustainable communities essentially by providing a natural health service. The open space audits and Open Space Strategy aims to address issues and targets based upon the current evidence base.

6.47 It will be necessary to co-ordinate ongoing data collection as required and evaluate performance against strategic indicators and benchmarks which have been determined.

Indicators

6.48 It will be beneficial to review the Open Space Strategy and to monitor performance by agreed indicators as listed below. The data collection for local open space indicators should seek to measure the extent to which communities have access to open space, play and informal recreation. Some key indicators are as follows:

- Open spaces should be accessible, welcoming and engaging for all age groups, including those who are disabled or have specific needs and wishes.
- Open spaces that are free of charge, allowing adults and children the freedom to come and go, and freedom to play or conduct recreational pursuits as they choose (the 'three frees').
- Potential key Green Flag Award scheme and Play England indicators and corresponding data collection methods are as follows:

  Access to a variety of open spaces and facilities: open space and play area audits.

  Quality of open spaces and facilities: bespoke audit form and guidelines utilising the Green Flag Award scheme criteria and the Play England quality assessment tool plus GIS mapping.

  Participation and Satisfaction: Public household and stakeholder questionnaire surveys as required, avoiding any over consultation.

Monitoring and review

6.49 This Open Space Strategy and action plan will be monitored through NULBC's Performance Management Framework and reviewed at least annually. A series of

recommended monitoring objectives, indicators and potential targets are set out in table 10.1 or chapter 10 within this Strategy. Future monitoring should include an assessment of progress against targets and whether these need to be modified in the light of changing circumstances. Changes to relevant legislation, policy guidance, funding, consultation findings, site changes, linked strategies and planning should be noted and the Strategy modified as appropriate. The Strategy covers a period up to 2040.

PART 2: GREEN INFRASTRUCTURE STRATEGY

7 THE GREEN INFRASTRUCTURE RESOURCE OF NEWCASTLE-UNDER-LYME BOROUGH

Key definitions

7.1 This section of the report sets out some relevant definitions, firstly of green infrastructure (which also includes blue infrastructure – aspects of the riparian and riverine natural resource) and of a closely related concept – nature-based solutions.

7.2 Green infrastructure forms one of the key building blocks of nature-based solutions and vice versa. The two concepts work together to create the potential for resilient and connected environments and nature recovery networks in the face of climate change and species fragmentation.

7.3 Nature-based solutions have gained increasing traction as an idea in light of the climate emergency and latterly with the Covid-19 pandemic. In particular the Dasgupta Review into the Economics of Biodiversity[26] makes a strong case for investment in nature-based solutions as part of economic development, growth and regeneration. This is due to the additionality of benefit and return on investment they provide as multi-functional solutions, in exactly the same way as green infrastructure.

What is green infrastructure?

7.4 Green infrastructure is defined in the National Planning Policy Framework 2021 as follows:

'A network of multi-functional green and blue spaces and other natural features, urban and rural, which is capable of delivering a wide range of environmental, economic, health and wellbeing benefits for nature, climate, local and wider communities and prosperity and quality of life benefits for local communities.

'.

7.5 Two concepts are of fundamental importance in the above definition:

- That of an interconnected and strategically planned spatial network of sites, assets and connections, for habitat connectivity and wider environmental resilience; and
- The potential for quality of life benefits and associated benefits for mental and physical health and well-being (the 'people dimension').

What are nature-based solutions?

7.6 The International Union for the Conservation of Nature (IUCN) defines nature-based solutions (NbS) as follows:

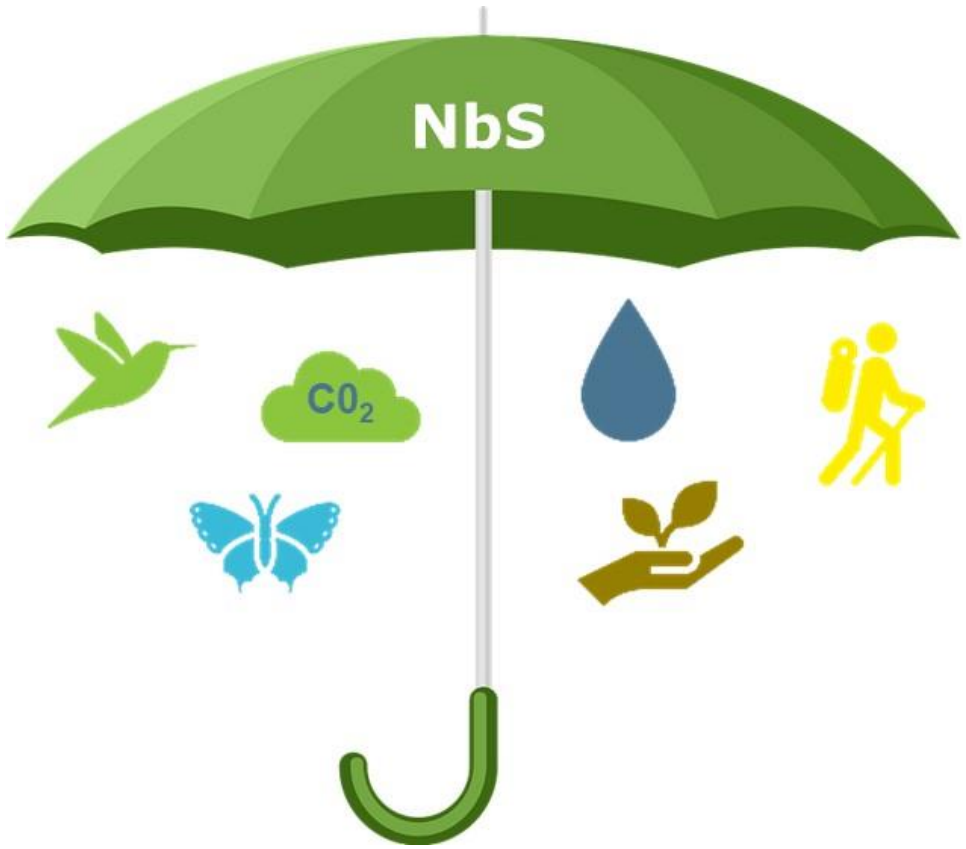
[26] https://www.gov.uk/government/publications/final-report-the-economics-of-biodiversity-the-dasgupta-review Accessed 21st November 2021

"…actions to protect, sustainably manage and restore natural or modified ecosystems that address societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits."

7.7 Furthermore the Nature-based solutions initiative of the University of Oxford describes NbS as:

'…actions that work with and enhance nature to help address societal challenges. The concept is grounded in the knowledge that healthy natural and managed ecosystems produce a diverse range of services on which human wellbeing depends. NbS is an 'umbrella concept' for other established nature-based approaches such as ecosystem-based adaptation (EbA) and mitigation (EbM), eco-disaster risk reduction (eco-DRR), green infrastructure (GI) and natural climate solutions (NCS)'.

Figure 7.1: Nature-based solutions and green infrastructure: An umbrella concept for a whole suite of natural resource processes, activities and ecosystem services (Image: RSK)



Benefits of GI and NbS

7.8 There is considerable overlap between the two concepts. Nature-based solutions are central to achieving nature recovery networks and environmental resilience. Nature-based solutions and their component natural capital assets, ecosystem services and environmental functions, can make notable contributions to achieving landscape scale green infrastructure networks, environmental mitigation and adaptation.

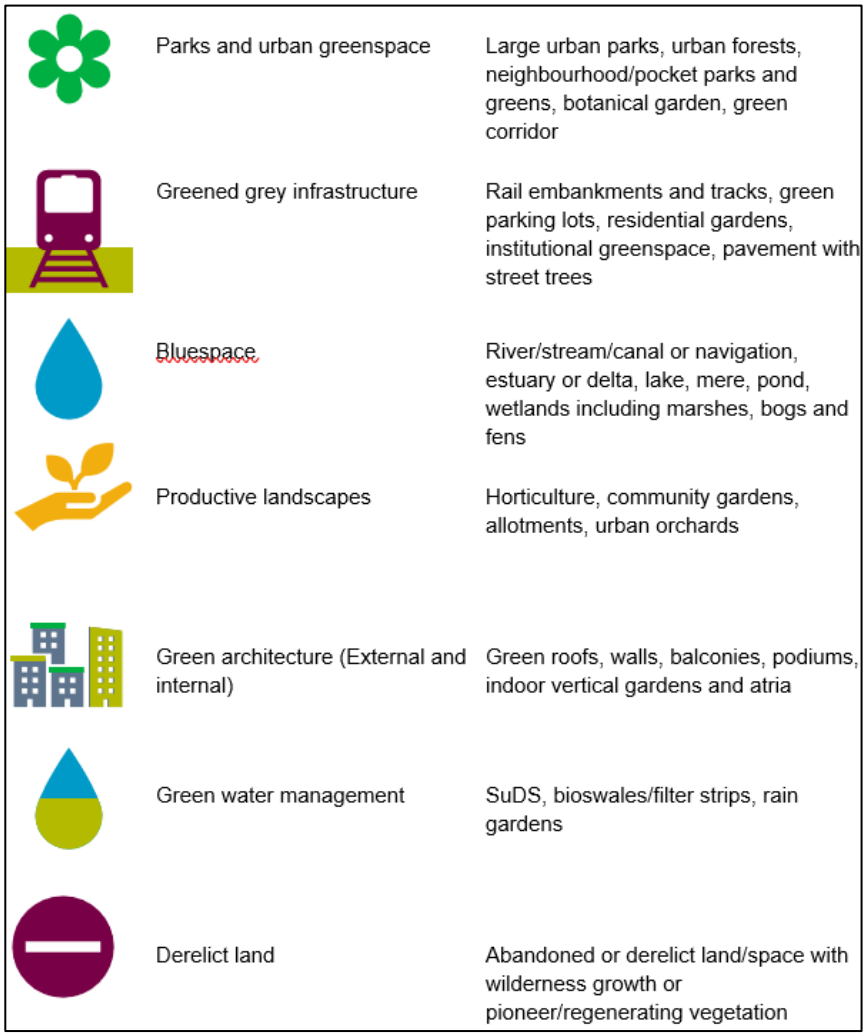
7.9 Both of the concepts are also closely related to land design and management approaches such as natural flood management and catchment scale landscape planning and systems-based approaches to landscape planning, design and management.

7.10 A multi-functional green infrastructure, nature-based network, as well as contributing to ecological and climate resilience, can also, when properly realised, delivered and managed, make notable contributions to other macro scale drivers. These include the United Nations Sustainable Development Goals and specific targets stated within those in relation to terrestrial and aquatic habitat protection and importantly social justice and equality.

7.11 Green infrastructure and nature-based networks can occur at a variety of scales, from macro, whole landscape or catchment scale, to masterplan/site scale, down to individual elements within a site.

7.12 The below typology of GI and NbS elements, adapted from the Naturvation Urban Nature Atlas, illustrates the varied range of scales and types at which GI/NbS interventions can be realised:

Figure 7.2: A GI/NbS typology, based on one produced by the Naturvation Urban Nature Atlas[27]



[27] https://www.naturvation.eu/atlas

Brief history of the green infrastructure approach

7.13 Many of the ideas in the approach are not particularly new. Indeed, many of the benefits of urban parks and green infrastructure for physical and mental health, well-being and spiritual refreshment have been realised since as far back as the early 19th century, as in these words by the 19th century landscape designer, John Claudius Loudon:

'The benefits experienced by breathing air unconfined by close streets of houses, and uncontaminated by the smoke of chimneys; the cheerful aspect of vegetation; the singing of birds in their season; and the enlivening effect of finding ourselves unpent-up by buildings; are felt by most people…'

J C Loudon, *The Suburban Gardener and Villa Companion*, 1838

7.14 J C Loudon was essentially expressing many of the ideas put forward in the Peoples' Parks and 'Gardens for the Gardenless' movements in the 19th century, as well as the work of Octavia Hill in co-establishing what later became the National Trust in 1895, to safeguard areas of open space for recreation and cultural and physical well-being. There are also parallels with the writing and advocacy of the great environmental activist and explorer, John Muir. The green infrastructure approach also perhaps has a number of antecedents in the great American parkway and park planning and design programme by landscape architects Frederick Law Olmstead and Calvert Vaux.

Figures 7.3-7.5 below, from left to right: Fig 7.3: J C Loudon (Image: Public domain and PD-US); Fig 7.4: Octavia Hill (Image: Public domain and PD-US); Fig 7.5: John Muir (Image: Public domain)

7.15 Many years later, multi-functional approaches to land use planning put forward by landscape architects such as Ian McHarg and Nan Fairbrother in the 1960s would begin to lay the groundwork for sustainable land use planning methods which became what we now know as green infrastructure. It was in the early years of the 21st century, with climate change and latterly the climate emergency and habitat and species fragmentation, that the green infrastructure approach was conceived as an idea. It was also when this and now NbS have gained increasing traction, both as sustainable approaches to land use planning and management, as essential life support systems or 'must haves' in relation to properly planned new growth and development, which should be delivered in equal partnership with other forms of infrastructure, whether urban, social, transport and communication, digital or public health and sanitation. Due to its cross cutting nature the GI/NbS approach can often make notable contributions to solving other infrastructure planning, design and delivery problems, as part of an added value, regenerative design approach.

Overview of existing green infrastructure in Newcastle-under-Lyme Borough

Existing green infrastructure assets

7.16 A diverse array of green infrastructure assets are evident in this large and predominantly rural borough, which are partly the result of the time depth displayed in the rural landscapes and of the underlying geology which has shaped landscape character. Both of these phenomena in places result in a rich and varied landscape, habitat and hydrological mosaic. This includes:

- Notable clusters of ancient woodlands (both semi natural and replanted) associated with the interlocking network of gently undulating ridges and valleys in the southern parts of the borough.
- Extensive influence of parklands and planned estate landscapes, more so in the rural south and to some extent in the north, albeit more fragmented in relation to the urban fringes of the principal towns of Newcastle and Kidsgrove.
- A high concentration of anciently enclosed farmland landscapes often on fossilised ridge and furrow/medieval strip field systems, which are very evident in the rural landscape.
- A network of relatively small scale river valleys on the red sandstone geology, often as tributaries of the Trent, plus part of one of the UK's earliest canal systems, the Trent and Mersey, and the short branch canal from Newcastle-under-Lyme to Stoke.
- Locally distinct groundwater dependent shallow water bodies known as meres, which create notable biodiversity and landscape interest, often as foci for common lands or smaller settlements such as at Betley and Madeley.
- A history of mineral extraction and coalfields. This has in places resulted in locally significant geological exposures. In other areas such sites have been transformed as legacy parklands and community country parks forming gateway sites to Newcastle-under-Lyme, such as Silverdale and Apedale; and
- A footpath network of often variable density, condition and quality, linked to a spine of strategic paths such as the Staffordshire Way and long distance routes associated with the canal networks.

7.17 The principal urban areas at Newcastle-under-Lyme and Kidsgrove are often equally rich in terms of green infrastructure assets, which include the following:

- Urban stretches of the Trent and Mersey Canal.
- Floodplain parklands on the coal measures associated with the Trent Valley (green gap between Newcastle and Stoke) and its tributary, the Lyme Brook.
- A network of relatively large town parks in Newcastle, including Bathpool Park and its mere, and Clough Hall Park, a remnant of a once far larger Victorian pleasure ground and 'People's Park' – the former 'Paradise for the Potteries'; and
- Large tracts of more informal parkland and amenity greenspace associated with suburban expansion of Newcastle.

7.18 Key issues associated with the qualitative, quantitative and functional provision in the existing green infrastructure network across the borough are noted in **section 8** of this report.

Review of the context in the 2017 GI Strategy

7.19 A review was undertaken of the previous 2017 strategy to inform and guide this new strategy. Key findings from the review are as follows:

A focus on four key challenges in the 2017 strategy:

- Working with growth.
- Meeting public demand.
- Making green infrastructure central to the future economy; and
- Improving the green infrastructure network and its connectivity.

Definition of four key objectives to support these challenges and to guide the strategy:

- Securing quality of place and positive development.
- Enabling healthier lives and stronger communities.
- Capturing the benefits of green infrastructure for all; and
- Making the borough more resilient and biodiverse.

7.20 These challenges and objectives are still equally relevant in guiding this new GI Strategy, supported by an increased focus on resilience and connected nature-based networks, reflecting the evolution of the green infrastructure concept in recent years in light of the climate emergency. With the focus in this new strategy on spatial provision and need in the context of GI functions and core ecosystem services, this new strategy provides more detailed articulation of the concepts in the 2017 document, to guide future growth, masterplanning and development during the plan period.

7.21 The 2017 strategy also identified a number of issues of relevance to this new strategy, which are summarised as follows:

- Greatest deficiencies in terms of social and people focused functions and needs met by the GI network in the rural areas of the borough.
- The challenge and threat to connectivity and severance of aspects of the rural biodiversity and access network by HS2 Phase 2a, and potential opportunities in the context of green bridges.
- The importance of non-sealed surfaces for nutrient cycling and aquifer recharge and their vulnerability to development. The need to maintain such features as part of a closed loop and water sensitive, greened approach to new development and urban design.
- The need to harness greater public interest in the green infrastructure network, through volunteer involvement and other mechanisms; and
- The need to work with developers in making the case the case for multi-functional green infrastructure networks for health and cohesive communities.

7.22 Four key implications of the analysis undertaken in the 2017 strategy were also identified, as foci for future co-ordinated action, investment and improvement. These are:

- Sub-optimal ecosystem services, with low resilience and vulnerable to macro scale change or 'hyper objects', such as climate change.
- A low baseline in terms of existing nature-based solutions, with potential for the network to do much more.
- Habitat fragmentation and vulnerability; and
- Hidden costs associated with existing barriers or limitations to access and provision deficiencies in the network, notably in terms of potential public health costs.

7.23 A very high level framework for green infrastructure was then developed for the spatial or 'nodal' zones across the borough and for broad brush green corridors which were defined for the strategy. This was supported by 8 core objectives and high level recommendations as to delivery and next steps. The 8 core objectives identified in the 2017 strategy are as follows:

1. **Increase the robustness of ecosystems** through long-term management planning, starting with those areas most at risk of further decline.
2. **Address spatial deficiencies in green infrastructure**.
3. **Build the 'capacity', which can support green infrastructure** notably by partnership building, increasing the input of volunteers and reducing the reliance on the local authority. However as a democratic organisation it remains necessary for the local authority to still be seen as the competent body for green infrastructure and offer leadership.
4. **Ensure a suitably worded policy on green infrastructure** is included in the Local Plan and that clear guidance is available to those in development control on how to maximise green infrastructure through the development process.
5. **Seek nature-based solutions** on all major developments and infrastructure projects such as HS2, road improvements, housing and commercial development sites.
6. **Plan Green Infrastructure at all scales from the neighbourhood to the landscape scale**.
7. **Place green infrastructure as central to resilience planning** (notably in connection with climate change) and health and wellbeing planning (notably in connection with the cardio-vascular, obesity, mental health and children's development agendas).
8. **Focus on the basics first**. Namely focusing on nodes and improving connectivity and designing in multifunctionality.

7.24 These objectives still remain highly appropriate for this new strategy, which seeks to expand on them through greater depth of spatial analysis and in developing integrated recommendations in parallel with the new Open Space Strategy earlier in this report. This will also provide a more spatially specific evidence base for decision making than the previous strategies. The above objectives should be read in parallel with the additional

new principles for planning, design and management of green infrastructure in chapter 10 of this strategy.

Stakeholder views

A summary of key views expressed by stakeholders in a workshop to focus this strategy held on Microsoft Teams on 15th July 2021 is set out below, with the full stakeholder workshop record report re-produced at **Appendix 7**.

When asked about what the green infrastructure vision for NULBC in the next 20 years should embody, stakeholders identified the following key issues, as set out in **Figure 7.6** below.

Figure 7.6: Stakeholder views on the vision for green infrastructure in NULBC. Image © SLIDO

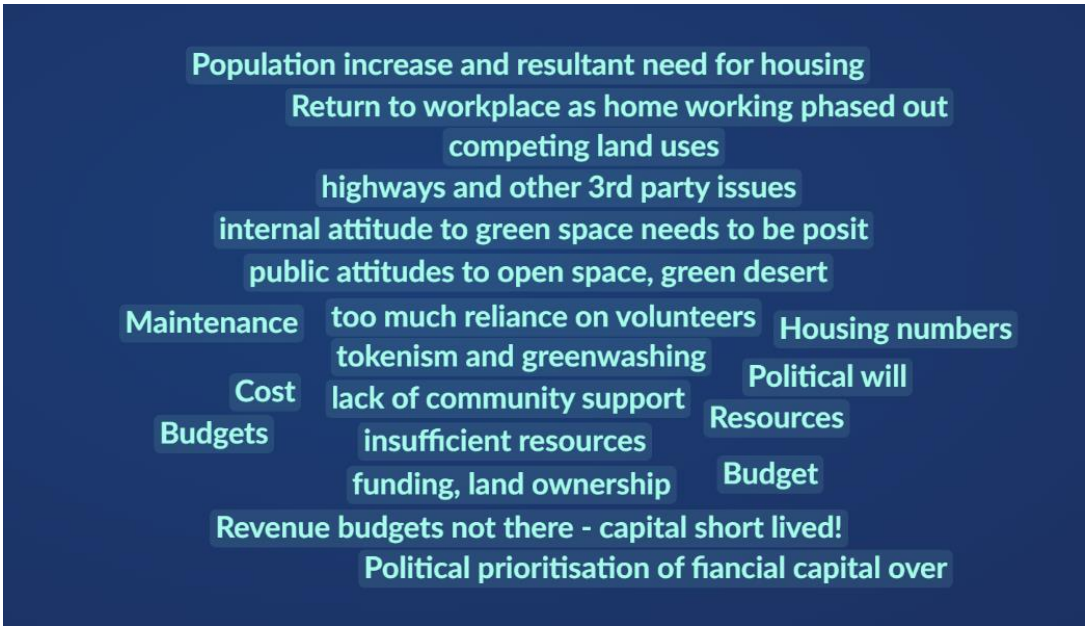
In addition the following themes were highlighted as important by stakeholders:

- The value of green spaces for mental and physical health and well-being, which has been heightened by the Covid-19 pandemic, and a key need to conserve and retain such spaces.
- The need for alternative approaches to sustainable mixed uses of open space, making the land work hard for the community rather than being set aside only for recreational use.
- Linked to the above point, participants highlighted the potential for social enterprises and apprenticeships to create employment and skills development, to benefit local people and communities, and maximise the versatility of the green network.
- The need for an enhanced, better connected sustainable/active travel network to link places in the borough was identified, to incentivise people not to use their cars by default. Related to this a need was identified for well-maintained cycle networks across the borough.

- The need to raise awareness of the borough greenspace network among the local communities was noted, in terms of mapped, spatial and informative detail about sites; and
- Need for enhanced youth provision in the green space network generally.

The stakeholders also identified a number of constraints to achieving a green infrastructure vision and a multi-functional green infrastructure network, as set out in **Figure 7.7** below.

Figure 7.7: Stakeholder views on the constraints to achieving the green infrastructure vision in NULBC. Image © SLIDO



In addition the following themes were highlighted as important by stakeholders:

- Ongoing population increase and the resultant need for accommodation, placing pressures on infrastructure including the greenspace and green infrastructure network, as well as associated competition for resources.
- The limitations of budgets to continue the work set in place during capital works stage was noted, particularly that there is often no allowance for revenue costs after the initial capital investment, with the result that new open spaces often become unmanaged and uncared for; and
- Resources and staffing issues were also noted, specifically a lack of paid officers to get schemes off the ground and support volunteers. The fluctuations in volunteer availability were also noted – successful schemes need continuity and a consistent lead person.

8 GREEN INFRASTRUCTURE NEED AND OPPORTUNITY ASSESSMENT

8.1 This section sets out the opportunity and need assessment for green and blue infrastructure in NULBC. Existing GI supply has been mapped in relation to six widely recognised environmental functions (spatial attributes) of green infrastructure, which also relate to aspects of ecosystem services and natural capital. These functions have been considered in the context of both current supply and barriers to access (i.e. need and demand) and consideration has also been given to quantitative (future population) need. This builds a robust, evidence-based picture of current GI supply and demand, to set the context for the strategic green infrastructure proposals at **section 9**.

Green infrastructure need assessment by environmental function/service

8.2 The GI functions assessed are as follows:

Access to green recreation/green and active travel opportunities

Landscape setting, experience, character and land quality

Historic character, setting and legacy

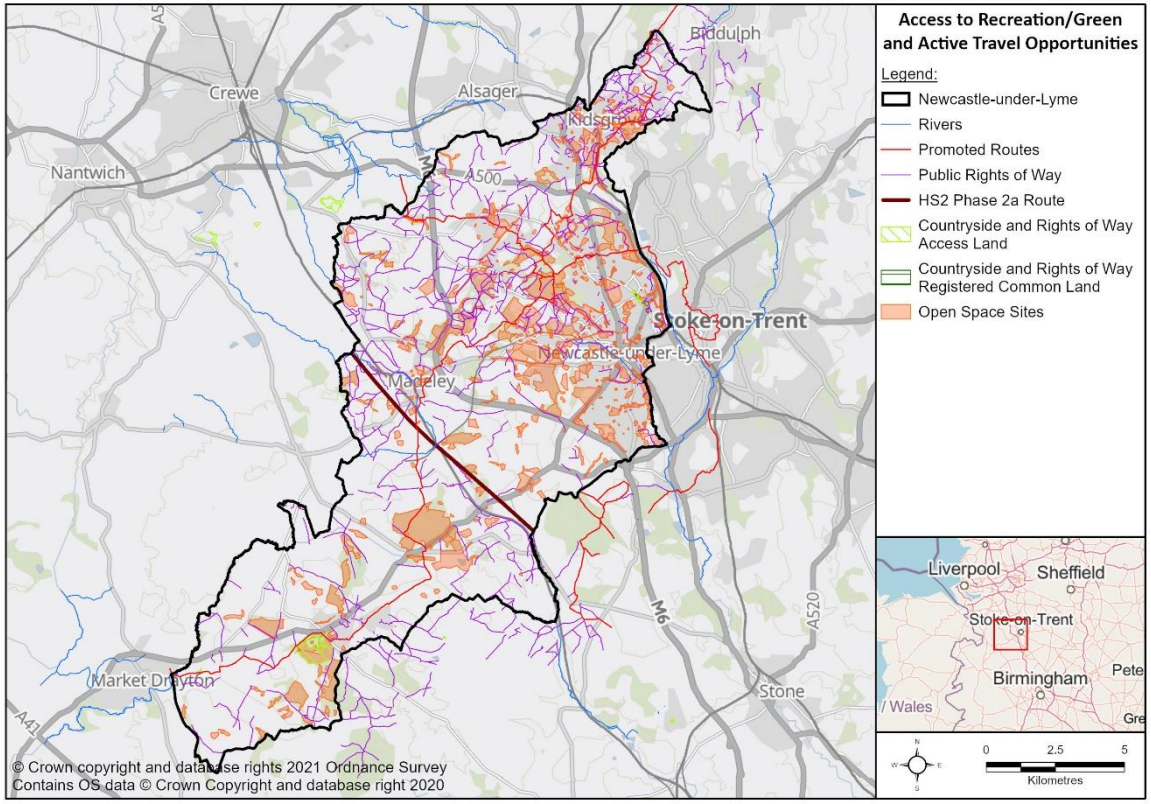
Biodiversity and nature conservation/nature recovery networks

Ecosystems health and functionality (including air quality, climate adaptation, water and flood management

Healthy and cohesive communities

8.3 The analysis of GI performance by each function is set out overleaf. For each function, a spatial analysis of the baseline position has been undertaken, which has informed a high level identification of opportunities for green infrastructure and nature-based solutions.

GI function 1: Table 8.1 Access to green recreation/green and active travel opportunities:

Access to green recreation/green and active travel opportunities	
Datasets used:	Figure 8.1: Access to green recreation/green and active travel opportunities:
National trails/long distance routes; SCC Public Rights of Way (PROW); promoted routes (e.g,. National Trails and other named long distance paths), open space data; Open Access land; Registered common land; Country parks; National woodland inventory data; Canals and rivers data; Datashine Commute map data/Office for National Statistics (ONS) data; Existing GI projects and initiatives (where relevant); Barriers to network and supply – main roads/railways.	

Access to green recreation/green and active travel opportunities

Key findings from spatial analysis:

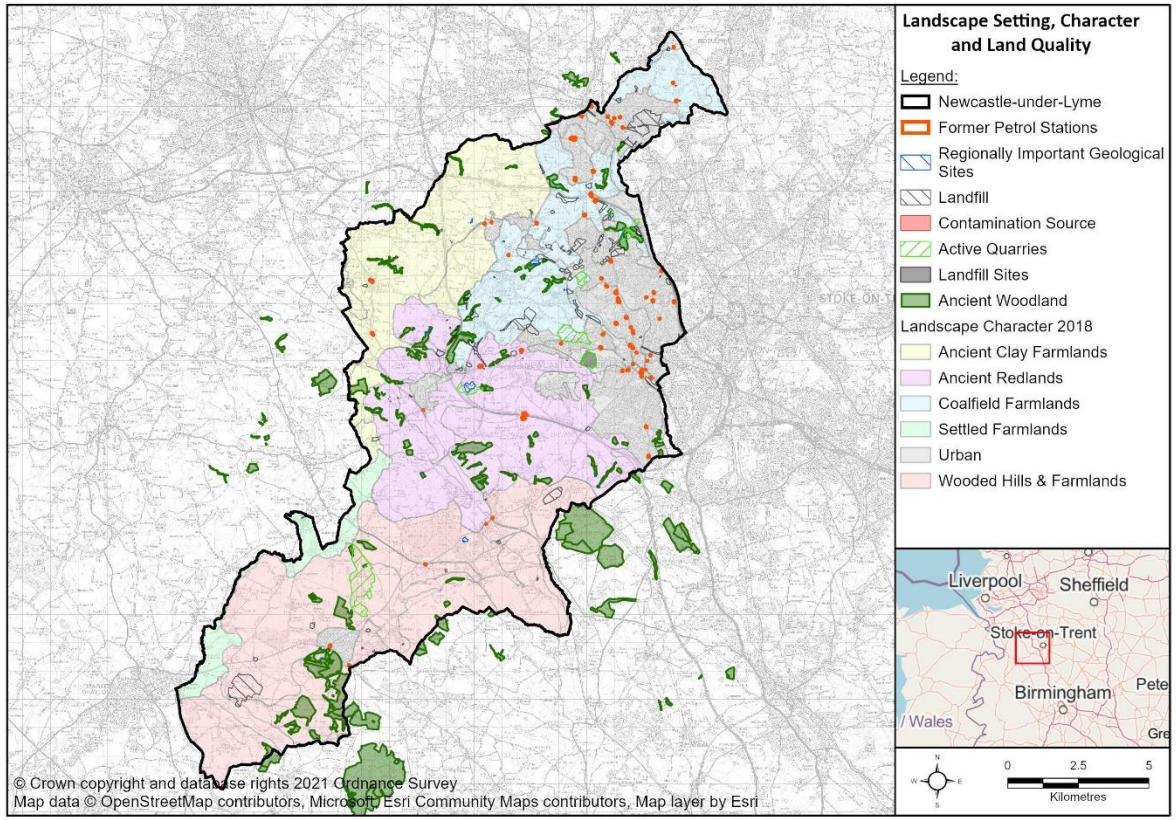
- Access links: A fairly comprehensive PRoW network exists in the north east of the borough, some of which fulfil more strategic connections i.e. beyond the borough into Biddulph. Many local PRoWs connect with the Newcastle Way long distance strategic promoted path which runs broadly north-south within the Borough from Kidsgrove-Newcastle-Madeley-Maer.
- Slightly severed/staggered access connections are evident to Bullocks House Road and Long Lane near Thursfield Primary School. There is the potential for this to be reviewed in the context of safe, green access.
- Within Kidsgrove, the PRoW network generally takes the form of short, local connectors between roads within housing estates although there are some strategic routes connecting large areas of greenspace such as at Birchenwood Country Park, a NULBC woodland (albeit with a relatively paucity of links from the south), plus also for the linear greenspaces near Nabbswood Road and Highfield Avenue.
- An extensive PRoW network intersects and crosses Bathpool Park further south, between Kidsgrove and Talke and near the old Talke Pits. Current night time social, misuse and safety issues at Bathpool Park have been noted at the time of writing (along with Clough Hall Park). Part of Bathpool is a now a country park managed by the Woodland Trust.
- The abandoned Harecastle Railway line and associated closed tunnel at Bathpool currently forms a focus for urban explorers.
- To the south of Birchenwood Country Park the A50 Liverpool Road creates a notable barrier to and severance of strategic green access routes.
- In the north/north west, the Trent and Mersey Canal at Kidsgrove creates a historically important strategic shared use link out of the borough into Cheshire East. The canal extends south under the town via the historic Harecastle Tunnel, which is a 1.66 mile tunnel open to narrowboats (no pedestrian access) on a restrictive/time limited basis (between 9am-1pm), emerging to the south near the intersection of Chatterley Road and Lowlands Road, Tunstall (within the Stoke on Trent authority area).
- At Newcastle-under-Lyme, there is variable access to parts of the Trent Valley and specifically tributaries such as the Lyme Brook. The latter forms an important strategic recreational GI corridor in proximity to the town and settlement edges, with considerable enhancement potential in terms of quality and experience. It forms part of the skeleton of a strategic access network that then goes into Apedale and into Silverdale Community County Park. Given the value and profile of the latter site, there is the potential to do much more with this access network.
- There appears to be quite an extensive and uniform distribution of local greenspaces in Newcastle-under-Lyme and its outlying suburbs, including a large swathe of open access land and registered common land south west of Wolstanton (between two school sites).
- The picture of open space provision in Newcastle can however be deceptive in places as large swathes of it are private open space, such as the notable greenspace estate for Keele University and also a number of golf courses.

Access to green recreation/green and active travel opportunities

- Key severances to a number of strategic PRoWs are created by the A500 dual carriageway across the centre of the borough. This arterial route also creates severance of potential strategic access links across the extensive greenspace network extending eastwards from Parkhouse Industrial Estate East and Longbridge Hayes (this would otherwise have the potential for a strategic connection into the Trent and Mersey/Trent Valley in the Stoke on Trent local authority area*)*.
- With regard to the M6 which bisects the middle of the borough, few severance issues seem to be apparent. A number of the strategic footpaths are carried over the motorway on over-bridges.
- To the southern and western parts of the borough, and to the south of the A500, is a markedly more rural and less populous character. Accessible hilltop woodlands overlook estate farmlands within the Meece Brook Valley, including the extensive Forestry Commission site at Swynnerton Old Park (planted ancient woodland site or PAWS), just outside the eastern borough boundary, and Maer Hill on the opposite side of the valley, within the NULBC area.
- Many other smaller woodland sites such as Whitmore Wood (PAWS) will change completely due to HS2 Phase 2a, based on current route alignment and plans.
- Much of the PRoW network in the rural south and west of the borough is far sparser and as such key routes have more strategic importance (and also have potential vulnerability to future HS2 severance).
- In some of the rural villages aspects of the historic natural environment have been incorporated within the settlements and form locally valued recreational foci, such as the mere at Madeley and the common and mere at Betley. Often fairly good local footpath networks are associated with the edges of such villages and are linked to small scale field networks and landscape patterns.
- A relatively intricate and complex/intact PRoW pattern exists around Ashley Heath in the south-west of the borough, although this appears to be something of an exception in an otherwise relatively sparsely networked part of the borough. Notable gaps in the local access network exist around Hales.
- Datashine Commute map data suggests key (on road) cycling commuter routes between Newcastle and Stoke via the A50 and Newcastle and Chesterton/Porthill via the Liverpool Road/London Road, along with Keele Road (for Keele University). Most of these may offer enhancement potential for safer, more attractive and pleasant cycle commuting routes.
- With reference to Datashine Commute data, key on-road foot-based commuting routes are between Newcastle and Chesterton, Porthill, Bradwell and Wolstanton Marsh, plus to the south between Newcastle and Clayton/Springfields and to the east between Newcastle and Penkhull and Stoke-on-Trent. The latter is largely via Etruria Road, a busy, high use intensity main road.
- Many of the above local commuting routes are likely to require enhancement to create pleasanter, healthier routes, although a strategic greenspace access link covers much of the route between Keele University and Newcastle.

Access to green recreation/green and active travel opportunities 
GI function 1: Key opportunities for the Green Infrastructure Strategy:
• Strategic connection across the A50 to upgrade strategic access links/fill gaps. • Opportunity to address the severances created by HS2 Phase 2a in the Meece Brook and Lea Valleys, and to use the legacy landscape created by the haul route for construction of HS2 as a green transport corridor with lateral links. • Enhancement of cycle commuting routes in the urban areas, including option to explore clean and safe, off route routes. • Scope to address local gaps in PRoW provision which could then create a more strategic, connected access network, e.g. near Birchenwood Country Park and Hales. • Potential to explore user group development and activation/audience development programmes for key urban parks with current safety issues – Bathpool and Clough Hall Parks.

GI function 2: Table 8.2: Landscape setting, experience, character and land quality:

Landscape setting, experience, character and land quality	
Datasets used:	Figure 8.2: Landscape setting, experience, character and land quality:
Staffordshire Landscape Character Types and landscape sensitivity ratings; Ancient Woodland Inventory data; Regionally Important Geological Sites (RIGS)/local geology sites; Quarries; Landfill sites; Contaminated land data; Field survey	

Landscape setting, experience, character and land quality

Key findings from spatial analysis:

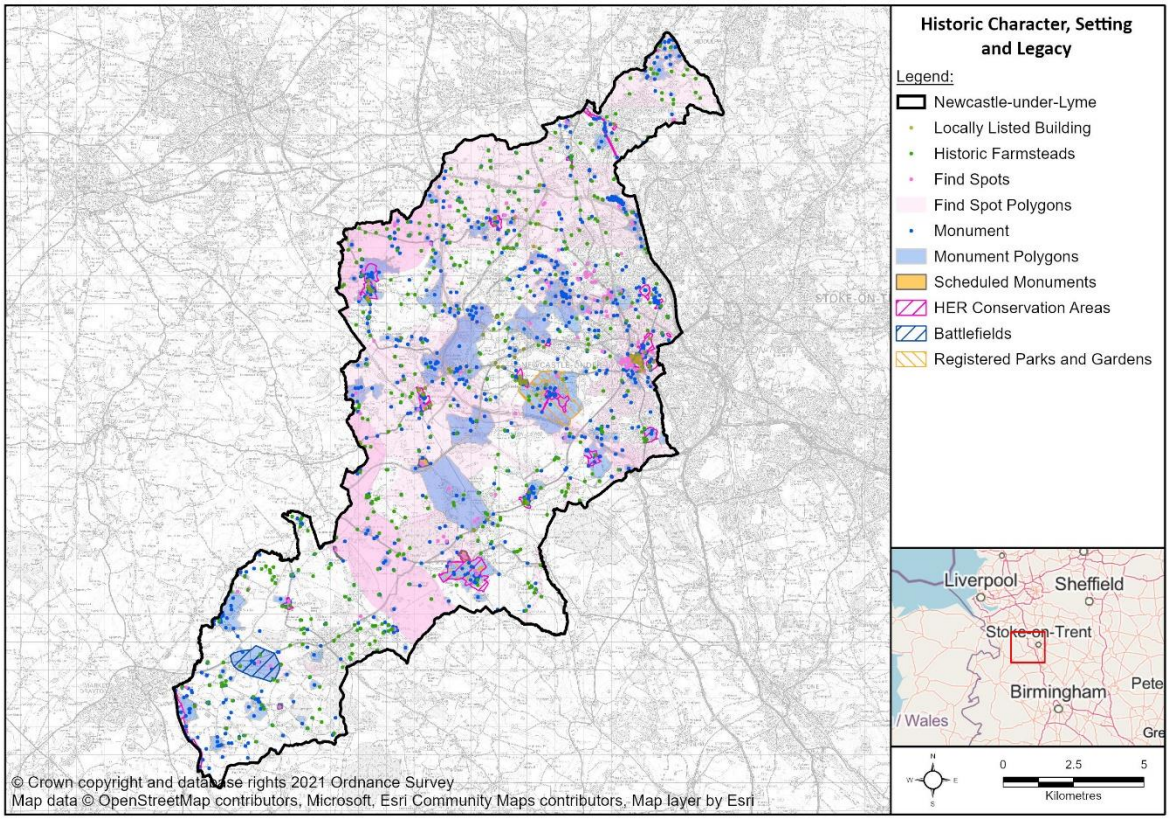
- Various restored landfill sites are located to the peri-urban edges of Kidsgrove, within the *Coalfield Farmlands* landscape character type (LCT).These include a sequence of sites forming the eastern urban greenspace gateway into the town. One such site is right next to a piece of ancient woodland that has been absorbed within the later 20th century southern urban limits of Kidsgrove.
- The eastern urban approach described above appears to have a fairly municipal character and with enhancement potential for urban wildspace.
- Regionally Important Geological Sites (RIGS) / local geology sites are located at Bradwell Wood Quarry immediately east of Parkhouse Industrial Estate to the north-eastern edge of Newcastle, plus Miry Quarry near Apedale Community Country Park and Furnace Quarry within Apedale Community Country Park. To the south a RIGS is also located at Madeley Heath Tileries at Ridgehill Clay Pit, plus one at Red Hill Rifle Range, on the eastern edge of Maer Hill Wood and those associated with historic quarries at Quarry Bank Quarry and Job's Wood Quarry.
- A number of quarry sites may present opportunities for future restoration or re-restoration as part of an inter-connected strategic green infrastructure network. These are the clay and shale quarries at High Carr Farm, south of the A500 (part operational at the time of writing) Bradwell East (ceased operations in 2019 and now in restoration), Chatterley (operational) and Rufus Quarry/Bradwell Wood in the north-east (non-operational, includes the RIGS mentioned above, the Bradwell sites are also allied to areas of ancient semi-natural woodland), plus Apedale South (non-operational), Knutton Quarry/Knutton Tileries (operational) and Walley's Quarry/landfill (being restored as landfill with completion anticipated by 2042) (both near Silverdale) and Keele Tileries/Keele Quarry (operational).
- Other quarry sites include Lordsley/Trentham, a non-operational, now restored sand and gravel quarry near Mucklestone Wood.
- Small clusters of ancient woodland (both semi natural and replanted sites) are apparent around Apedale, including Heighley Castle Wood, plus along the Lea Valley as hanger woodlands (Whitmore, Hey Sprink and others) and ancient woodland sites framing the former Lordsley /Trentham Quarry site (including one small area of ancient woodland within). This includes ancient wet woodland in the Tern Valley at Willoughbridge Bogs, plus a much more extensive and connected cluster of ancient woodland sites in the south-east of the borough. However, the general picture appears to be one of woodland fragmentation and need for enhanced connectivity.
- Bathpool Park has the potential to be a notable green gateway and greenspace asset on the southern approach to Kidsgrove(but currently with a number of use, safety and management issues), with a notable ancient woodland swathe extending south from the long rectangular pool/lake in the park.

Landscape setting, experience, character and land quality

- The A500 appears to present a key enhancement and connectivity opportunity in landscape terms, also including restored landfill sites and landforms with improvement potential.
- The Lyme Brook, a partly channelised, partly culverted tributary stream of the River Trent presents notable enhancement potential, along with the associated floodplain.
- Key landscape assets which also present opportunities for green infrastructure in terms of character, sense of place, experience and connectivity appear to be centred on the rural swathe of ridges and valleys in the south of the borough – Meece Brook and associated ridge and vale system, plus ancient hanger woodlands, remnant deer parks (planted ancient woodland or PAWS site at Swynnerton Old Park, just beyond the boundary), wooded tributaries etc. Also the meres at Madeley and Betley.
- There is an extensive and relatively well-connected ancient woodland network to the southernmost part of the borough around Hales and Hookgate, plus also the ancient woodland framework associated with the ancient, small scale landscape around Betley Common and Betley Mere.
- The 2019 Landscape sensitivity analysis of the borough provide by NULBC identifies key areas of higher cultural pattern sensitivity in the western band of rural landscapes between and including Onneley and Betley (ancient wooded pastures landcover), plus also at Chapel Chorlton (ancient wooded pastures landcover, within the *Ancient Clay Farmlands* LCT, extending out of the borough to Checkley and beyond) in the south-west and a band just beyond the borough boundary towards Colehurst (ancient wooded pastures landcover, within the *Ancient Clay Farmlands* LCT).
- A wide landscape band of moderate cultural sensitivity wraps around these higher sensitivity areas almost continuously from Madeley down to Cheswardine just beyond the borough boundary (also within an area of ancient wooded pasture landcover, within the *Wooded Hills and Farmlands* LCT).
- Very high landscape sensitivity persists in the rural landscapes to the south-west around Loggerheads (*Wooded Hills and Farmlands* LCT, ancient wooded land landcover), with a band of high natural sensitivity landscapes between Hill Chorlton and Minn Bank (W*ooded Hills and Farmlands* LCT), plus a small area of the same within the same LCT at Ashley Heath and also just beyond the borough boundary/east of Cheswardine.
- The above are the prime areas of rural GI to focus on for conservation, enhancement and connectivity, but also to explore appropriate nature recovery measures through Environmental Land Management (ELM) and others, to maximise future resilience.
- A large band of moderate sensitivity landscapes (Ancient Redlands LCT) in the north and north-east of the borough extends from Alsager to Madeley Heath, plus a moderate natural sensitivity area in the east-west band including Whitmore Heath, Whitmore Wood and Baldwin's Gate, within the Wooded Hills and Farmlands LCT (a potential key enhancement and restoration opportunity

Landscape setting, experience, character and land quality 
in this location, linked to HS2 Phase 2a). These areas are all likely to present opportunities for enhanced connectivity and ecosystems restoration, to increase the multi-functional potential of this landscape. • A very small band of low sensitivity landscape persists in the narrow river valley between Stableford and Baldwin's Gate (this area is going to face almost wholesale change from HS2 Phase 2a and therefore may present some significant GI and mitigation opportunities through the Design and Build scheme for Phase 2a and potentially more through the HS2 Community Environment Fund (CEF) – Strategic, when considered together with Baldwin's Gate and Whitmore). This small band of landscape forms part of a much wider area of low sensitivity landscape towards Swynnerton. • Key rural green infrastructure/landscape scale green infrastructure assets include the River Lea valley and Meece Brook, plus Maer Hill and woodlands.
GI function 2: Key opportunities for the Green Infrastructure Strategy:
• Landscape connectivity and restoration opportunities from HS2 – replanted ancient woodlands and fieldscapes around Whitmore Wood, Hey Sprink and the Meece Brook and Lea Valleys, plus also landscape restoration enhancement opportunities associated with HS2 at Stableford and Baldwin's Gate. This could also link to the strategic access interventions proposed in the analysis for Environmental Function 1, above. • Linked to the above, ancient woodland connectivity and enhanced connective planting to link ancient and semi natural woodland sites and create more of a wilded farmland landscape mosaic/network of habitats for nature recovery, delivered through Environmental Land Management (ELM) and other mechanisms. • Enhancement of the A500 corridor, considering also peri-urban sites such as restored landfill sites. • The Lyme Brook also presents a key opportunity for multi-functional landscape restoration and enhancement, not just for amenity and landscape experience and setting, but also potentially natural flood management and biodiversity, among others. • There may also be scope for enhanced presentation and interpretation of a number of the RIGS sites so that people better understand their value/importance.

GI function 3: Table 8.3: Historic character, setting and legacy:

Historic character, setting and legacy	
Datasets used:	Figure 8.3: Historic character, setting and legacy:
Historic landscape characterisation (HLC) data; Statutory and locally listed buildings; Registered Parks and Gardens; Registered Battlefields; Sites on the Sites and Monuments Record (SMR); Historic Environment Record (HER) data – Event points or find spots/find locations documented on the HER and HER monument points – site locations.	

Historic character, setting and legacy

Key findings from spatial analysis:

- The HER data identifies a cluster of pre-Enclosure ridge and furrow field systems north of Kidsgrove which are a significant survival, plus associated isolated farmsteads and former 17th to 19th century Millstone Quarries, and other former industry at and around Mow Cop, such as former collieries and brickworks.
- The ridge and furrow field systems noted above are part of a wider historic landscape pattern around Mow Cop, plus an extensive area of ridge and furrow near Alderhey Lane and Dales Green Road.
- A pattern of historic farmsteads and remnant ridge and furrow field systems is also evident around Chatterley Sidings in the eastern part of the borough, along with a deserted settlement at Chatterley. Medieval ridge and furrow systems are also apparent around Dimsdale Hall at Newcastle-under-Lyme (site of present day golf course at Wolstanton).
- In the settled central part of the borough the HER identifies many lost farmsteads now subsumed within the urban area, plus also within Kidsgrove are the landscape structure and remains of the Victorian public park at Clough Hall, now otherwise largely built over. Clough Hall Park is a much reduced remnant of a far larger park and pleasure ground which formed the setting for the now lost Clough Hall and was known as a ‘paradise for the Potteries’ laid out in 1888 (and largely lost to development in the first half of the 20th century and beyond).
- A possible Iron Age hill fort is located at Harecastle Clump, overlooking Bathpool Park to the north. A Roman Fort is located at Chesterton, west of Newcastle, plus a network of historic farmsteads in the arc of countryside west of Newcastle, plus a landed estate at Audley Old Hall (site of a timber framed hall house). Some of these may have interpretive potential as part of the green infrastructure network.
- A network of valley farmsteads lies along the Engelsea Brook-Dean Brook, plus associated remnant ridge and furrow field systems to the south.
- Designed landscapes and remnant ones are a prevalent feature across the borough, notably including registered parks and gardens at Keele Hall (Grade II), which forms part of Keele University’s greenspace estate, and Maer Hall (Grade II). The large designed parkland and gardens (Grade II*) of Trentham Hall are just beyond the borough boundary, and are a visually prominent feature with tall parkland exotic trees on the skyline.
- This is echoed by a wider pattern and clusters of designed landscapes across the borough. Landscape parks include Betley Hall Park, a remnant Georgian and Victorian designed landscape associated with the now-demolished Betley Hall and its former walled garden, plus a much earlier landscape of lakes, ponds and fishponds nearby.

Historic character, setting and legacy

- Many of the historic estate landscape features are surrounded by an extensive network of early field systems in part carved from assarted woodland and early, pre-18th century and late medieval/post-medieval fieldscapes. Therefore an ancient rural landscape persists in much of the rural borough, which is highly significant and creates a conservation and enhancement opportunity as part of the rural GI network.
- An almost continuous pattern of landscape parks and landed estates extends to the south of the borough and beyond, such as Hales Hall and Peatswood Park, Loggerheads.
- To the southernmost parts of the borough, prominent hilltop plantation woodlands are located at Maer Hill, near Maer Hall, the historic home of Erasmus Darwin. This mirrors the similarly large woodland on the opposite side of the broad valley, at Swynnerton Old Park (the site of a medieval deer park, now largely plantation forestry), just beyond the borough boundary.
- An evident estate historic landscape character persists around Belterley Hall and associated farms such as Buddleigh Farm.
- Old Madeley Manor and the associated water landscape were linked with Izaak Walton (*The Compleat Angler*).
- In the southern-central part of the borough is the site of a medieval battlefield at Blore Heath (1459, one of the Battles of the Wars of the Roses).
- A network of meres and mosses is evident in the central band of landscape in the borough, including some well-preserved ancient peat mosses (Mesolithic to Iron Age). Notable examples include Craddock's Moss, Audley, which provides a record of vegetational change from the mid-late prehistoric period to the Romano-British period.
- In the eastern part of the borough are the railway chords and former mineral railways associated with former colliery sites around Silverdale, of which one has now notably been transformed as a key green infrastructure asset forming a gateway to Newcastle-under-Lyme: Silverdale Community Country Park, which is in the ownership and management of the Land Trust.
- Historic waterways: The early canal system, the Trent and Mersey, falls partly within the northern part of the borough (also designated as a conservation area) and forms part of a significant strategic green infrastructure route. The Shropshire Union Canal is also so designated.
- A number of conservation areas in the borough also have notable green and blue infrastructure assets and features, such as the meres at Madeley and Betley.

GI function 3: Key opportunities for the Green Infrastructure Strategy:

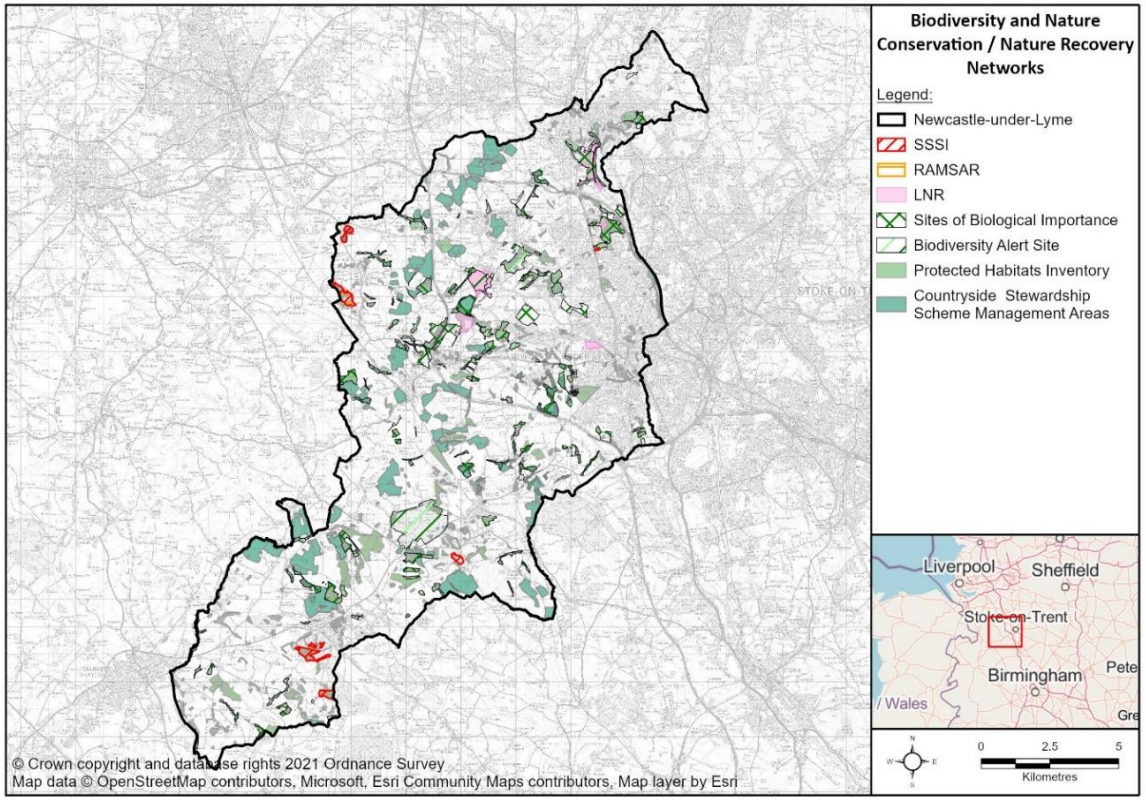
- Due to the richness of the historic landscape resource and the historic associations of the landscapes and assets of the borough, there may be many interpretive possibilities and to place NULBC's GI in a nationally significant context. This includes: palaeolithic

Historic character, setting and legacy

and hunter gatherer peoples, Roman Britain, the Wars of the Roses, medieval life on the land, landed gentry, enclosures and displacements, the Darwins and Izaac Walton.

- A rich and often intact historic landscape resource and sense of time depth is apparent in much of the rural GI of the borough in particular, which should be conserved as key parts of the rural GI network and through ELM and other mechanisms. This could form the focus for a series of over-arching landscape scale action/intervention zones for the GI network.
- To some extent this is also reflected in aspects of the urban GI network – post-industrial landscape and quarrying/minerals legacy, the 'paradise for the potteries' at Clough Hall Park. Explore strategic opportunity to enhance Clough Hall Park given quality and potential safety issues on site too.

GI function 4: Table 8.4: Biodiversity and nature conservation/Nature recovery networks:

Biodiversity and nature conservation/Nature recovery networks	
Datasets used:	Figure 8.4: Biodiversity and nature conservation/nature recovery networks:
Statutory nature conservation designations and relevant citations: Local nature conservation designations; BAP Priority Habitats; BAP Habitats.	

Biodiversity and nature conservation/Nature recovery networks

Key findings from spatial analysis:

This section is split into two sub-sections: 1. Terrestrial ecology and 2. Aquatic ecology:

Terrestrial ecology:

- Small clusters of internationally and nationally protected ecological assets are apparent, often associated with the distinctive hydrology of the borough, e.g. Maer Pool SSSI, Black Firs and Cranberry Bog SSSI, Burnt Wood SSSI and Betley Mere SSSI, which is part of the Midland Meres and Mosses RAMSAR site.
- Small clusters of ancient woodland (both semi natural and replanted sites) are apparent around Apedale, including Heighley Castle Wood, plus along the Lea Valley as hanger woodlands (Whitmore, Hey Sprink and others) and ancient woodland sites framing the former Lordsley /Trentham Quarry site (including one small area of ancient woodland within). This includes ancient wet woodland in the Tern Valley at Willoughbridge Bogs, plus a much more extensive and connected cluster of ancient woodland sites in the south-east of the borough. However, the general picture appears to be one of woodland fragmentation and need for enhanced connectivity.
- The coniferous woodlands at Maer Hill, identified as a Biodiversity Alert Site, support a range of heathland and acid grassland habitats. This may have once formed part of a linked heathland habitat network with Swynnerton Old Park on the opposite side of the valley and reflecting the underlying sandstone geology. There may be further opportunities for heathland creation and enhanced habitat linkages.
- There is a relatively extensive locally protected urban biodiversity network, in Kidsgrove and Newcastle-under-Lyme in particular, encompassing a varied habitat mosaic, such as the ancient woodlands and the lake in the green wedge covering Bathpool Park and extending towards Talke within Kidsgrove, plus also the ancient woodland, woodland and grassland at Birchenwood Country Park on the eastern approach to Kidsgrove.
- A sparser locally protected habitat network exists across Newcastle, albeit with some clusters of strategic importance and biodiversity opportunity, such as along the Lyme Brook, at Apedale Community and Silverdale Community Country Park. Also at the Keele University estate and pockets of urban biodiversity interest, such as at Clayton. Generally though the management of the extensive greenspace network in Newcastle creates an opportunity to enhance habitat connectivity and resilience to fragmentation.
- The rural landscapes have a much denser distribution of priority habitat sites associated with the mosaic of ancient woodlands, meres and heaths and a number of large scale areas of land are managed positively through stewardship. This may present a further opportunity to use ELM to connect farmland habitats and create a better connected rural nature recovery network.

Biodiversity and nature conservation/Nature recovery networks

Aquatic ecology:

- The Borough contains a stretch of the Trent and Mersey canal, which remains navigable. However, there may be opportunity for wilding in marginal / side channels or non-mooring areas. This could include the use of in-channel artificial vegetated berms in combination with soft engineering within the riparian environment.
- Valley Brook, located to the west of Talke, may present opportunity for enhancement and improvement works. Much of the channel within the borough's boundary flows through agricultural land. Review of aerial imagery shows cattle poaching and over straightened sections that would benefit from realignment works and improved fencing.
- Moving south, another tributary of the Valley Brook initially flows under the A500 near Mill End. At this point, it may be possible to establish / improve connectivity to Englesea Brook via a series of side channels.
- The Englesea Brook flows through a large area of agricultural farmland to south of Mill End in northern part of borough. The morphology of the brook appears to show a degree of naturalisation with meanders being present although sections appear to have been realigned / over straightened. Improved land management with riparian buffer strips would aid further naturalisation, reduce surface water run-off contaminating the brook and mitigate poaching from livestock.
- Where the Englesea Brook bisects Audley and Bignall End, the channel passes through an extensive area of tunnel vegetation created by the overhead tree canopy. Selective thinning to improve light penetration would benefit macrophyte (aquatic plant) growth and provide macroinvertebrate habitat along with coarse fish spawning / nursery areas.
- The morphology of the River Lea, in the central part of the borough, is reasonable with meanders and varying flow regimes. An extension to the Grafton's Site of Biological Importance to incorporate more of the adjoining channel both up and downstream would be beneficial.
- The River Lea would benefit from the use of riparian buffer strips to mitigate direct run-off from the arable farmland through which it flows. This may be particularly beneficial around the Williams Farm whose barns and storage areas are near the channel.
- The River Tern, south of Willoughbridge, is extensively over straightened with uniform banks. Opportunities to naturalise the channel by adding meanders for example would greatly improve the aquatic environment. Further, improved connectivity to areas such as Willoughbridge Park and Quarry would further increase biodiversity and improve habitat complexity.
- The Coal Brook intersects the eastern and western boundaries of the southern extent of the borough. Based on review of the available aerial imagery, there is a series of online lakes, which appear heavily silted (south of Lloyd Farm). Improved land management and silt mitigation measures may be worth considering to prevent further sedimentation.

Biodiversity and nature conservation/Nature recovery networks

- Aquatic environments within the urbanised areas of the eastern borough would benefit from in-channel works to diversify flow and increase habitat complexity. This could be achieved using artificial vegetated berms, introduction of gravel side / point bars, willow faggoting etc.
- The borough contains a high proportion of agricultural land interspersed with Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR's) which incorporate offline aquatic features such as Maer Pool. Extension to these boundaries through the creation of green corridors and improved aquatic connectivity to online aquatic sources (where possible / reasonable) would improve biodiversity and habitat complexity.
- Engagement with non-statutory stakeholders, such as the Trent Rivers Trust, should be considered as a priority. Opportunities to synergise to form a joined up approach with ongoing projects within the wider Trent catchment would provide the greatest opportunity for habitat improvement / enhancement as well as increased species abundance and biodiversity.
- The ERDF SUNRISE project incorporates local aquatic habitat improvement / enhancement schemes which can be emulated within urban areas of the borough. For example, 450 m of the River Trent flowing through the Staffordshire University has undergone extensive re-naturalisation works and is considered to represent a more diverse and dynamic habitat for wildlife to thrive in.

GI function 4: Key opportunities for the Green Infrastructure Strategy:

Terrestrial ecology:

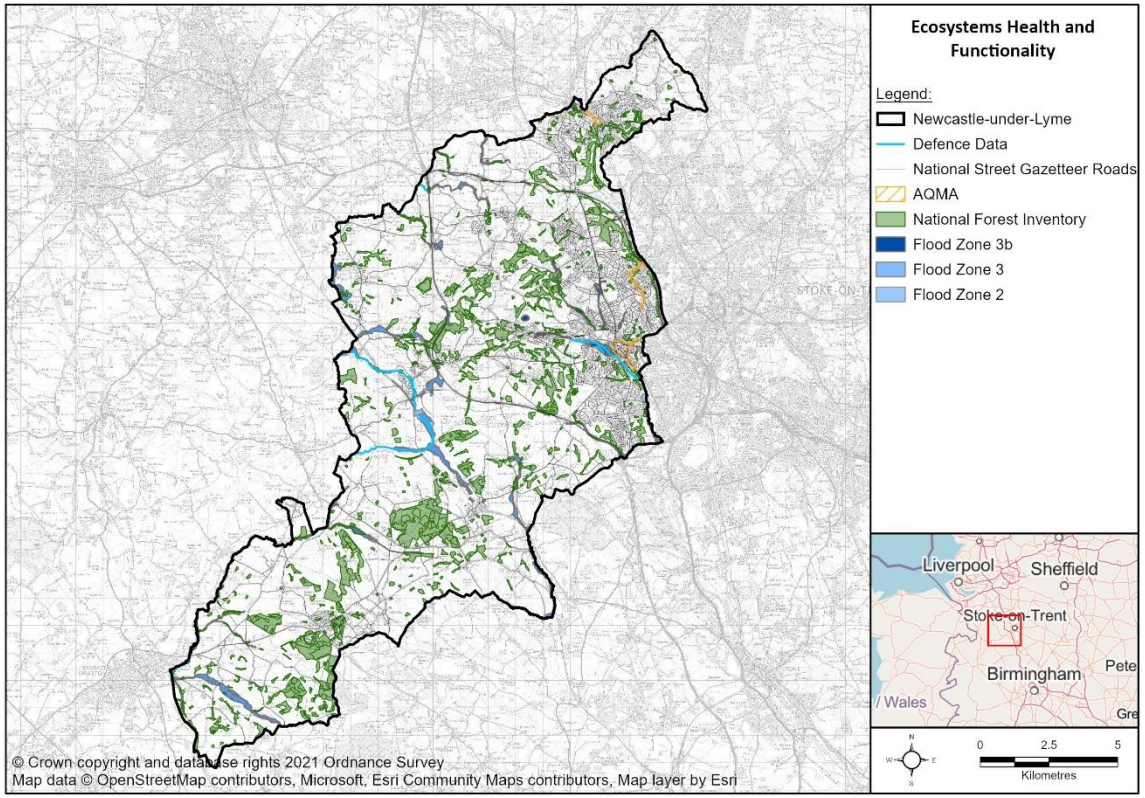
- Using landscape management to enhance connectivity and assist in reversing fragmentation between priority habitat assets and sites, as part of a landscape scale, landscape character informed and multi-functional approach.
- Use of ELM and other mechanisms such as regenerative agriculture to contribute to creation of rural nature recovery networks.

Aquatic ecology:

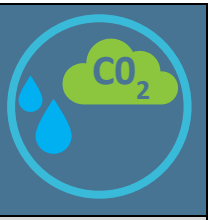
- Opportunities for localised wilding in marginal areas of the Trent and Mersey Canal (explore links with HS2 Phase 2a mitigation where appropriate).
- Naturalisation and restoration of sections of the Valley Brook and River Tern to create richer aquatic habitat potential and space for water linked to a natural flood management approach.

Biodiversity and nature conservation/Nature recovery networks 
• Definition of riparian buffer zones to reinforce habitat and restrict cattle poaching and trampling, as well as to protect and enhance other key aquatic/blue infrastructure assets such as meres and pools. • Specific proposals for improved land management of brooks and ponds to reducing over shading and silting (Coal Brook), to better manage wetland ecosystems and habitats, as well as buffer zones to capture agricultural run-off (River Lea). • Exploration of partnerships and joint working with the Trent Rivers Trust and other related stakeholders as part of a catchment scale/whole valley approach.

GI function 5: Table 8.5: Ecosystems health and functionality:

Ecosystems health and functionality	
Datasets used:	Figure 8.5: Ecosystems health and functionality:
Air Quality Management Area (AQMA) data; Datashine Commute Data/ONS data; Main rivers and watercourses; Environment Agency Flood Zone and Flood Risk defence data	

Ecosystems health and functionality



Key findings from spatial analysis:

This section is split into two sub-sections: 1. air quality, and 2. Climate adaptation, water storage and flood risk management:

Air quality:

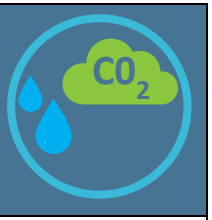
- A Ministerial Direction has been made in respect of air quality in relation to a short stretch of Etruria Road, between Basford Park Road and Victoria Street (on the boundary between NULBC and Stoke-on-Trent), which has nitrogen dioxide concentrations which exceed statutory limits[28].
- Air Quality Management Areas (AQMA's) are present in Kidsgrove, along a large part of the A50 Liverpool Road, and which may present opportunities for tree planting, subject to space, sight lines and underground utilities.
- Notable other AQMAs are also present in the town centre of Newcastle-under-Lyme (and the associated ring road) and in the Newcastle suburbs/neighbourhoods of Porthill and Wolstanton, along the B5370 road. There is some potential scope for urban greening or retrofit as and when buildings are redeveloped, although it is likely that space is limited, due to density of development in these areas and associated underground utilities.
- Subject to space and service/utility constraints, the larger high intensity traffic corridors in the borough, such as the A34 Newcastle Road and surrounding green wedges, may present opportunities for landscape scale urban greening to contribute to ecosystems health functionality and other GI functions.

Climate adaptation, water storage and flood risk management:

- To the northernmost part of the borough, the Trent and Mersey Canal has a significant flood zone (also falling in both flood zones 2 and 3), in close proximity to large industrial premises at Kidsgrove. Strategic opportunities for upstream water storage upstream and enhanced natural flood management should therefore be explored.
- The Englesea Brook follows a meandering watercourse and, along with its floodplain is covered by flood zones 2 and 3 south of Mill End in the farmland in the northern part of borough. There is potential scope for enhanced water storage area north of Audley. Also in relation to the watercourse to the north which drains out of the borough towards Alsager (the River Waldron, which joins the River Weaver east of Crewe).

[28] https://www.newcastle-staffs.gov.uk/protection/air-quality-management/6

Ecosystems health and functionality



- The winding course of the Checkley Brook, in the north-central part of the borough, and its floodplain are in EA flood zones 2 and 3. They partly intersect with the M6 motorway. Potential scope for additional landscape scale tree planting for water management and air quality should be explored, as well as wetland enhancement and creation, as part of a multi-functional approach linking with the above functional analyses.
- The River Lea, in the central rural part of the borough, has a number of flood defences to the river channel, with the river and floodplain falling within EA flood zone 3, and including areas around the old Silverdale Railway and the Madeley chord (and therefore is in the area of the proposed HS2 Phase 2a alignment, which is likely to present further need and opportunity for water storage and wetlands).
- The Meece Brook and floodplain at Stableford and extending north, is in both flood zones and 2 and 3. The construction of HS2 Phase 2a in this location may necessitate further water storage, subject to design evolution of the route, creating a potential opportunity for wetland enhancement in such a location.
- The Shropshire Union Canal has a relatively tightly drawn flood zone. There is the potential opportunity for wetland creation in the enlarged agricultural fields surrounding and more in proximity to settlements for water storage, but also for biodiversity and wetland re-wilding, as part of a multi-functional approach to blue infrastructure.
- The Coal Brook, in the south of the borough, drains into a network of watercourses including the River Tern on which the town of Market Drayton is located, just beyond the south western borough boundary. The town is protected by flood defences, but the upstream areas of the Coal Brook may also present opportunities for water storage and offline wetland areas to assist with natural flood management, in the areas of rural greenspace alongside. This watercourse and floodplain are in both flood zone 2 and flood zone 3.
- Newcastle-under-Lyme: Key features and areas of potential are the Lyme Brook (EA flood zones 2 and 3), partly channelised, culverted and heavily engineered with many flood defences. There may be scope for enhanced water storage and naturalisation of parts of the valley floor here, to positively help with natural flood management.
- Much of the Lyme Brook is heavily culverted in the town of Newcastle before its ‘fingers’ emerge in the north as channelised tributaries and partly open, but with development otherwise largely built up to it.
- The Lyme Brook ultimately extends out towards Silverdale and the community country park and associated wetlands on the former colliery lands.
- To the borough boundary with Stoke lies the Fowlea Brook, associated flood zone and the Trent and Mersey Canal.

Ecosystems health and functionality

GI function 5: Key opportunities for the Green Infrastructure Strategy:

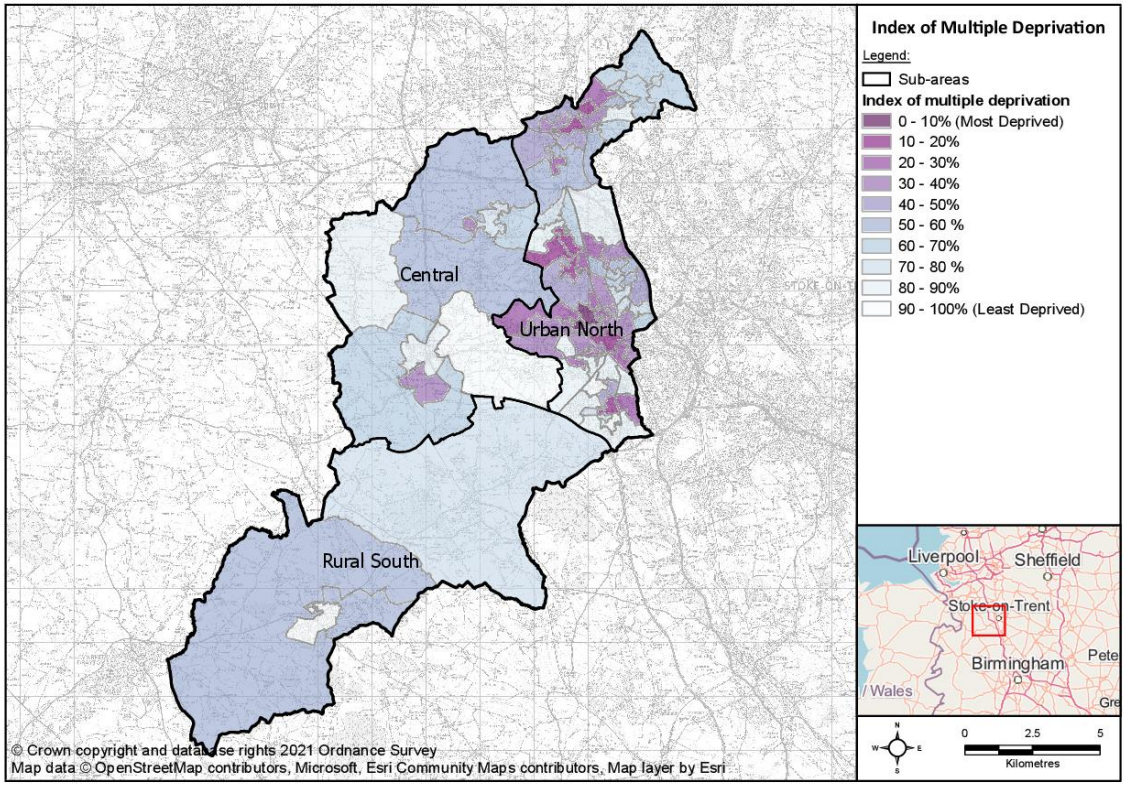
Air quality:

- Determine scope for tree planting and 'urban forestry' initiatives to trunk road and principal road corridors and associated swathes of greenspace (subject to operational and other constraints). This could and should be explored as part of a multi- functional approach e.g. also for landscape and habitat connectivity.

Climate adaptation, water storage and flood risk management:

- Landscape scale natural flood management proposals in the Meece Brook valley, Lea Valley and at/around Stableford as part of mitigation for the planned HS2 Phase 2a alignment.
- Naturalisation and restoration of parts of the Lyme Brook, as part of a 'space for water' and resilient, multi-functional design approach.
- Explore integrated natural flood management partnership proposals with Stoke-on-Trent for relevant parts of the Fowlea Brook and the Trent and Mersey Canal.

GI function 6: Table 8.6: Healthy and cohesive communities:

Healthy and cohesive communities	
Datasets used:	Figure 8.6: Healthy and cohesive communities:
Office of Public Sector Information (OPSI) Indices of Multiple Deprivation (IMD) data including crime deprivation and health derivation data (40% most deprived ward/Local Super Output Area or LSOA data); Long distance routes and PRoW data; Greenspace data; Main roads, railways and other key barriers.	

Healthy and cohesive communities

Key findings from spatial analysis:

- Neighbourhood and more particularly local level park provision deficits are evident in the Newchapel and Rookery areas of Kidsgrove and in the residential suburbs to the western and southernmost edges of Talke, within Kidsgrove.
- The Rookery area park provision deficit coincides with a large area of deprivation identified within the OPSI IMD data and with similar areas of deprivation in the Talke area.
- Many of the areas of deprivation in Kidsgrove are also covered by neighbourhood level park catchments (and by a local park catchment in Harrishead). This may point to potential issues with quality of and accessibility to greenspaces, and particular road/severance barriers, subject to disaggregating deprivation data down into health and crime deprivation for the fullest picture.
- The areas of deprivation, in the western suburbs of Kidsgrove in particular, also appear to correspond to a deficit in PRoW provision.
- Within Kidsgrove, notable deficits are also apparent in terms of provision for children and young people, particularly Local Equipped Areas of Play (although this is also covered in the open space part of the assessment. This situation is also reflected in large areas of Newcastle.
- Similarly, many of the areas of multiple deprivation in north and north-central Newcastle, such as Chesterton, Bradwell, Porthill and parts of Wolstanton are also within neighbourhood park level catchments, which may, as before, point to issues with regard to greenspace quality and accessibility. There is also a relatively sparse and poorly connected PRoW network in this part of Newcastle.
- The easternmost and southernmost parts of Newcastle (south of Wolstanton/east of May Bank and in the Westlands and Clayton areas, respectively) are also within areas of both park provision deficit and multiple deprivation.
- The Land Trust owned and managed Silverdale Community Country Park, forming a key part of the western gateway into Newcastle, also falls partly within an area of deprivation (which may point to potential historic issues of deficit, subject to disaggregation of data to show what type of deprivation to gain more specific detail and to understand whether this is a historic issue as opposed to current). The Silverdale Community Country Park has created notable positive outcomes for health and well-being and for community cohesion, with over 3,800 households benefitting from access to the site, plus wider benefits to cultural well-being[29].

[29] Source: Natural Capital Account for Silverdale Country Park: https://thelandtrust.org.uk/wp-content/uploads/2017/01/The-Land-Trust-Natural-Capital-Valuation-of-Silverdale-Country-Park-Final-edited.pdf Accessed 18th November 2021

Healthy and cohesive communities 
• Most of the accessible greenspace/accessible natural greenspace deficits relate to the two larger centres of population. The predominantly rural southern and central part of the borough appears to be relatively well served by a network of PRoW linking many of the settlements to rural countryside areas. These link into the long distance promoted route, the Newcastle Way, at various points, and which also runs through the two principal towns of Newcastle and Kidsgrove, linking Mow Cop in the north to Market Drayton in the south-west via Loggerheads[30]. • The Newcastle Way also connects into the Staffordshire Way at Mow Cop and links to a strategic access route along the Trent and Mersey Canal. . •
GI function 6: Key opportunities for the Green Infrastructure Strategy:
• Explore and target opportunities for greenspace enhancements in the parks listed in the areas of deprivation in the above row of the table, to target living environment and health deprivation issues. • Linked to the access to green recreation analysis for function 1 above, enhanced access links, legibility, signage and routes to address access deficits and severances. • The above could also link to provision of off-road walking commuting and cycling routes.

[30] https://ldwa.org.uk/ldp/members/show_path.php?path_name=Newcastle+Way+%28Staffordshire%29 Accessed 14th June 2021

Green infrastructure need assessment by spatial provision standards

8.4 This section measures current quantitative GI provision against relevant national and local provision standards. It also considers the future population trajectory to 2040, to inform the analysis of future need for the GI Strategy.

Performance against national provision standards

8.5 In addition to the work on setting open space provision standards in the Open Space Strategy, a quantitative needs assessment has been undertaken of the existing green infrastructure network. This has been made with reference to widely accepted national provision standards, in this case Natural England's Accessible Natural Greenspace Standard (ANGSt), a catchment-based provision standard[31]. These set out a nationally recognised framework for accessible and quantitative semi natural greenspace provision. The findings in relation to ANGSt are set out below, for comparison to the earlier local to sub-regional open space provision assessment undertaken in the earlier Open Space Strategy within this report.

8.6 Whilst Natural England are currently in the process of developing new national standards and principles for green infrastructure, these are as yet un-published and ANGSt therefore remains a useful framework to guide an understanding of quantitative GI shortfall and to highlight spatial locations for potential investment in the network, to address deficit.

8.7 ANGSt set out four levels of quantitative provision, based on site area (in hectares) plus associated catchments. These are based on the following core tenet, that 'ANGSt recommends that everyone, wherever they live, should have an accessible natural greenspace:

- of at least 2 hectares in size, no more than 300 metres (5 minute walk) from home.
- at least one accessible 20 hectare site within two kilometres of home.
- one accessible 100 hectare site within five kilometres of home.
- one accessible 500 hectare site within ten kilometres of home; plus
- a minimum of one hectare of statutory Local Nature Reserves per thousand population'.[32]

8.8 The performance against each of the first four accessible natural greenspace hierarchies listed above as it relates to NULBC is set out in the series of maps overleaf, where the sites corresponding to these spatial categories have been mapped, along with their associated catchment buffers. Accompanying each map is a brief commentary on nature of provision and deficit, and opportunities to focus the green infrastructure strategy.

[31] Natural England, 2010, *Nature Nearby: Accessible Natural Greenspace Guidance*, NE265

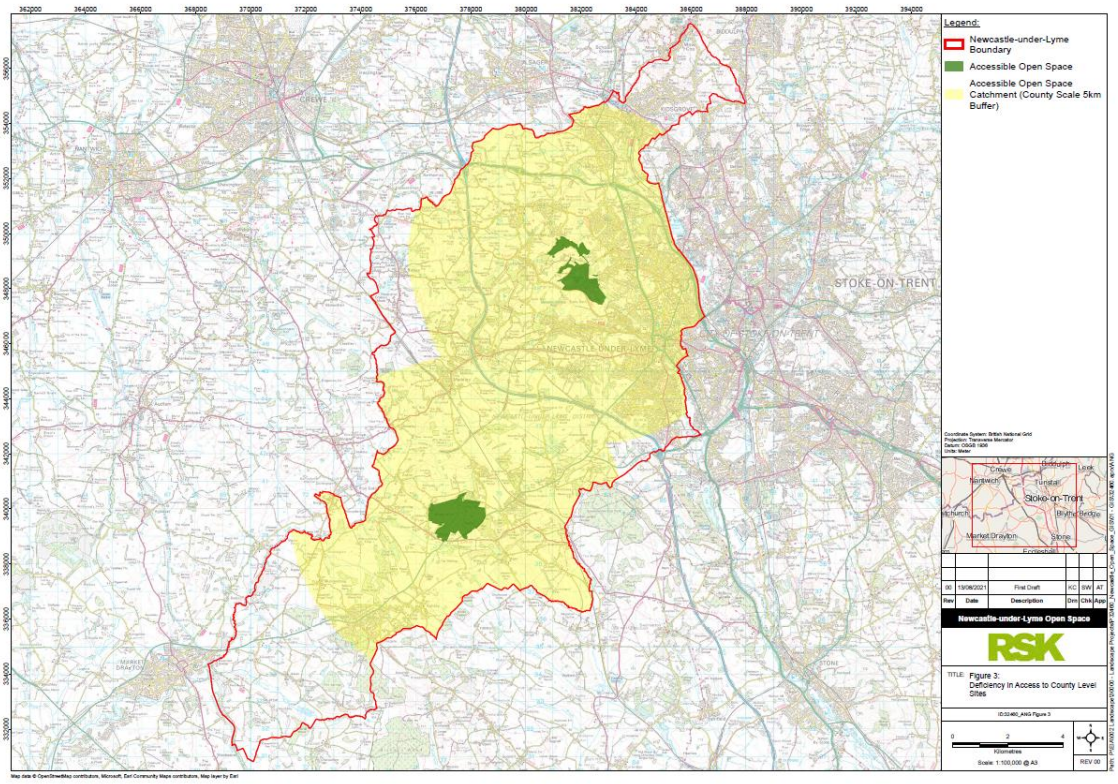
[32] Ibid, p 12

500 hectare accessible natural greenspace sites

8.9 There are no sites fulfilling the 500 hectare function in NULBC. The closest large scale sites to this category lie just beyond the borough boundary to the south east, with Swynnerton Old Park (329 hectares) and Trentham Park, which extends to over 200 hectares. This indicates a need for enhanced green infrastructure linkages to large semi natural greenspace sites outwith borough boundaries which could come close to fulfilling this function for NULBC.

100 hectare accessible natural greenspace sites

Figure 8.7: 100 hectare accessible natural greenspace sites and catchments



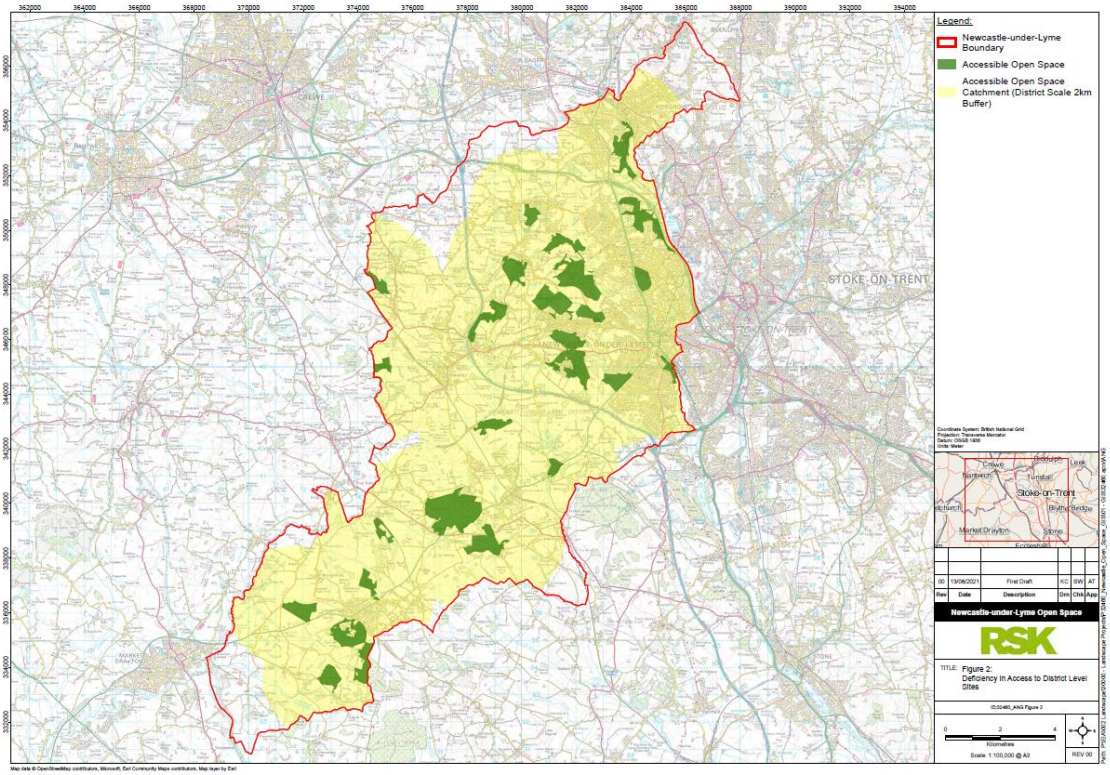
8.10 **Figure 8.7** above shows two sites within this category within NULBC – Apedale and Maer Hills Woods, with associated catchment covering much of the district. A deficit exists to the southwestern extents of the borough, to the west of Loggerheads, which falls just within the catchment for this level of provision. As such, the area of deficit largely falls within a relatively sparsely populated rural part of the borough, indicating less need for large areas of new spatial provision. However the need for enhanced access links and addressing gaps and severances in the PRoW network to mitigate such deficits should not be underestimated.

8.11 More seriously a substantial area of population at Kidsgrove falls entirely within an area of deficit for this level of spatial provision. Cross referenced to the earlier discussion of deprivation and other environmental issues in this area, this suggests a need for some targeted investment in the greenspace network, not least in terms of quality of life, health and in addressing deprivation issues.

8.12 Two relatively small areas of 100 hectare category spatial deficit lie to the western and eastern borough boundaries, around Betley in the west and to the southernmost tip of Newcastle-under-Lyme at the eastern borough boundary. However, given that only NULBC open space data could be obtained for the analysis, this presents a limited picture in this location, as account has not been able to be taken for Swynnerton Old Park or Trentham Park and Trentham Gardens, which lie just beyond the borough boundary at this point. If these were included, this area would not have a deficit in terms of 100 hectare provision.

20 hectare accessible natural greenspace sites

Figure 8.8: 20 hectare accessible natural greenspace sites and catchments



8.13 **Figure 8.8** above unsurprisingly shows a much more extensive picture in terms of 20 hectare provision across the borough, with only relatively small areas of provision deficits to the outermost extremities of the borough, to the north, east, south and west. As with the 100 hectare sites, the easternmost deficits would be partially cancelled out by inclusion of adjacent LPA sites at Swynnerton Old Park and Trentham Park/Trentham

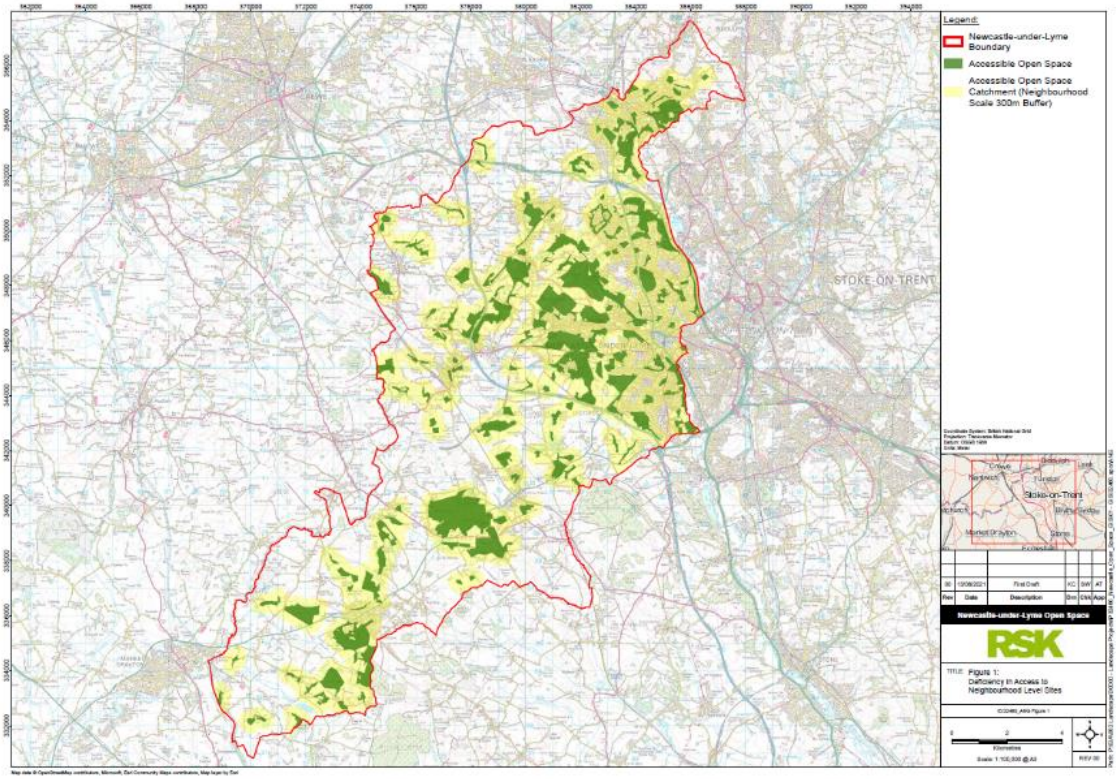
Gardens. This is due to their close proximity and the fact that they fall within the 2km catchment for 20 hectare provision, leaving just the small tip of the borough at Stableford and Chapel Chorlton in deficit at the 20 hectare level. This is also partly due to the fact that larger categories of site by definition will meet the criteria for the categories which sit below them, e.g. a 100 hectare site also fulfils the function of a 20 hectare site, and provided they also fall within the smaller catchment of the smaller level site, they can contribute to addressing such deficits.

8.14 However a note of caution should be sounded in relation to the above, as the valley at Stableford is the location for the future route of High Speed Two (HS2) Phase 2a, which will significantly contribute to severance in accessing all thresholds of greenspace provision in this area.

8.15 A deficit exists north of Kidsgrove, consistently suggesting a need to target greenspace provision and enhancement investment in this area given the environmental and social issues documented above.

2 hectare accessible natural greenspace sites

Figure 8.9: 2 hectare accessible natural greenspace provision



8.16 Not unexpectedly, given the relatively small catchment defined for 2 hectare provision, **Figure 8.9** above shows a significant number of deficits across the borough. Whilst a number of these can be accounted for through not being within or close to settlements or

centres of population (and therefore unlikely to be material as an issue for the GI Strategy, more significantly, a number of them fall within areas of population. These include:

- Areas of Loggerheads, Ashley Heath and Ashley.
- Mucklestone, Aston, Chapel Chorlton and Stableford.
- Larger villages and settlements such as Madeley Park, Betley, Mow Cop, parts of Madeley Heath and parts of Audley.
- A number of pockets of deficit within the higher density developed parts of Newcastle-under-Lyme, including in areas of deprivation in the southernmost suburbs of the town; and
- Deficits in areas of Kidsgrove associated with deprivation, notably parts of Talke Pit and the western extents of Kidsgrove, plus deficits to the north of Kidsgrove.

8.17 These and associated active/green travel and access links are the key focus for the Green Infrastructure Strategy at this most ‘local’ level.

9 A GREEN INFRASTRUCTURE VISION AND STRATEGY FOR NEWCASTLE-UNDER - LYME BOROUGH

9.1 This section sets out the long term (2040) vision for green and blue infrastructure in NULBC, responding to the functional and need and demand analysis, fieldwork and stakeholder engagement. The vision is followed by the proposed green infrastructure network and strategic interventions.

Green infrastructure vision 2040

A borough of resilient, living and working and connected countryside, where farming and nature co-exist in a balanced manner, and where the notable historic landscape resource of parklands, estates, ancient woodlands and anciently enclosed fieldscapes is conserved and reinforced as an integral part of the rural nature recovery network. The network of river valleys is better connected and recognised, delivering a wider range of objectives in terms of water quality, biodiversity and nature recovery and natural flood management potential.

Management of historic and countryside green infrastructure assets encompasses sustainable techniques such as sylvicultural systems and introduction of managed wildspace for ecological and landscape connectivity, as well as creation of quiet and reflective spaces where residents and visitors can contemplate and enjoy the nature-based network. Mitigation for large-scale transport infrastructure is designed to secure landscape integration, connectivity and resilience.

A borough whose principal towns of Newcastle-under-Lyme and Kidsgrove are served by an attractive, healthy, well-connected active travel network, linking a legible network of gateway community parklands and country parks with residential neighbourhoods, pocket greens and incidental greenspaces, with a good level of way-finding and site information, and which facilitate equal access. The post-industrial landscape, biological and geological legacy of much of the urban GI network is recognised, valued and enhanced and more flexible approaches are used for urban greenspace management, including urban wildspace, enhancing the connectivity and resilience of the network. Access severances are addressed, facilitating access for all and opportunities for contact with nature and to enjoy the mental and physical health and well-being benefits of this, of the green infrastructure network and of the countryside in and around the towns.

New development and infrastructure is of high quality design, and nature-based approaches are delivered as integral parts of these, to create a resilient and sustainable urban form, as well as an aspirational and distinctive, landscape and green infrastructure led sense of place. New development and retrofitting of existing development embraces multi-functional, creative design solutions to enhance the robustness of existing ecosystem services and natural capital across the settled parts of the borough, and contribute to biodiversity net gain.

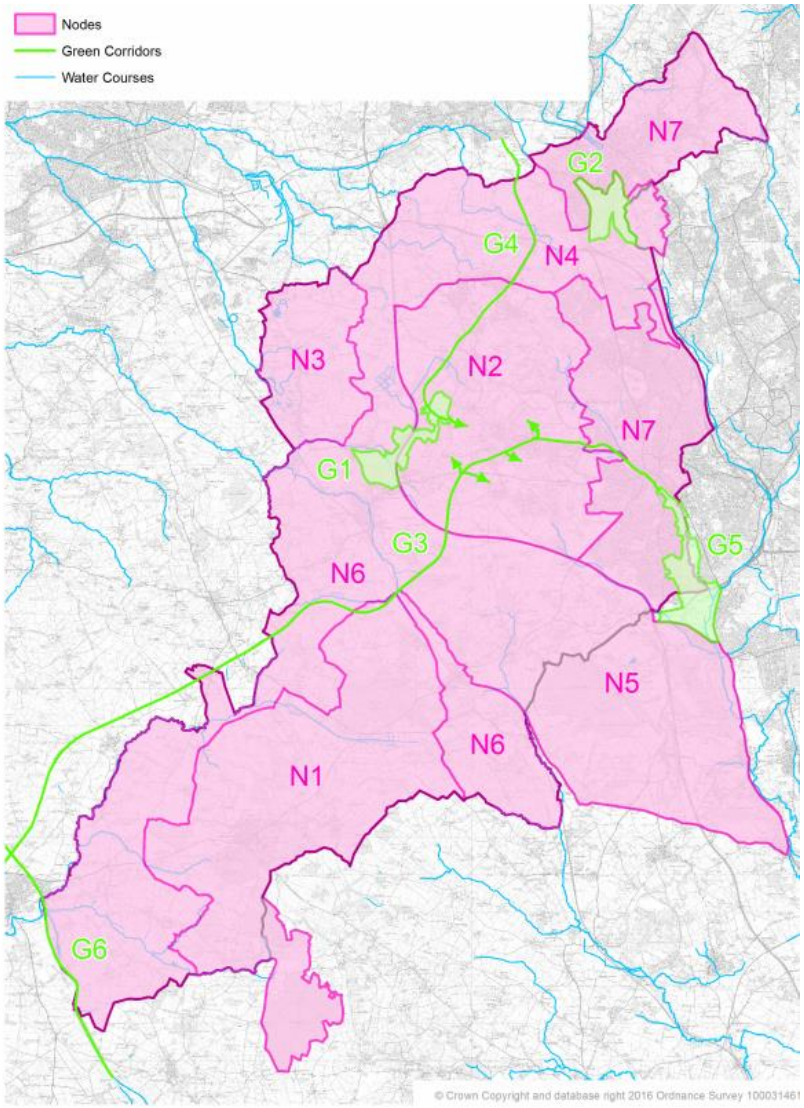
A borough whose residents are proud of and actively use and participate in the green infrastructure network as the setting for aspects of their lives.

The green infrastructure network for Newcastle-under-Lyme Borough

Context: The 2017 GI network

9.2 The GI network set out within the 2017 GI Strategy took the form of a series of strategic scale 'nodes' or spatial zones and broad green corridors as a basis for organising a series of strategic project interventions. These nodes and corridors are re-produced for reference in **Figure 9.1** below, followed by a discussion of the approach and rationale for the new GI network for this strategy and an introduction to the principal interventions proposed within it.

Figure 9.1: Nodes and green corridors in the 2017 GI Strategy (Image: NULBC)



Proposed network and rationale

9.3 The proposed green infrastructure network for Newcastle-under-Lyme Borough is shown on **Figure 9.2**.

9.4 The network takes a landscape scale approach. Core components of the GI network are a series of green infrastructure action zones, informed by and based loosely upon the landscape character areas and their specific distinctions in terms of cultural patterns, landscape characteristics and physical environmental features. This approach is considered appropriate for much of the rural and peri urban parts of the borough, where future land management change and green infrastructure delivery is most likely to be affected through Environmental Land Management (ELM) schemes which complement such objectives. The approach also reflects a place-based consideration of green infrastructure, whereby strategic design and management interventions can be planned to reflect and complement variations in landscape character and their local and wider context.

9.5 The landscape scale green infrastructure zones (with their spatial relationships to the earlier 'nodes' which formed the focus for action in the 2017 GI Strategy) are as follows:

- **Wetland Conservation and Enhancement Zone:** Relevant 2017 GI nodes are N1 Bishops Wood to River Lea, N2 Newcastle West Green Gateway, N3 Betley, Balterley and Wrinehill, N4 Newcastle and Kidsgrove Green Gateway, N6 West and Central, and N7 Urban and Urban Fringe.
- **Ancient Clay Farmland Nature Recovery Zone:** Relevant 2017 GI nodes are N1 Bishops Wood to River Lea and N6 West and Central.
- **Ancient Wooded Farmland / Wooded Hills and Farmlands: Parkland and Estate Farmland Conservation and Nature Recovery Zone:** Relevant 2017 GI nodes are N5 Hanchurch Hills, Swynnerton Old Park and Trentham Gardens, N6 West and Central, and N7 Urban and Urban Fringe.
- **Coalfield Farmland Peri-Urban Enhancement Zone:** Relevant 2017 GI nodes are N2 Newcastle West Green Gateway, N4 Newcastle and Kidsgrove Green Gateway and N7 Urban and Urban Fringe.
- **Urban Green Infrastructure Enhancement Zone:** The relevant 2017 GI node is N7 Urban and Urban Fringe.

9.6 The key aims underpinning each of the landscape scale green infrastructure zones them are set out in **Table 9.1** overleaf.

Table 9.1: Green infrastructure zones

Zone	Key aims
Wetland Conservation and Enhancement Zone 	• Enhancing and restoring modified river morphologies and associated habitats. • Create richer aquatic biodiversity and assist in delivering natural flood management approaches; and • Slowing flow of water in proximity to urban areas, creating multi-functional areas of water storage which also enhance biodiversity and landscape character.
Ancient Clay Farmland Nature Recovery Zone 	• Conservation and enhancement of the notable concentration of historic landscape assets, such as early co-axial, ridge and furrow field systems and ancient woodland; and • Use of mechanisms such as Environmental Land Management (ELM) to deliver partnership landscape proposals for biodiversity – farmland nature recovery networks and passive re-wilding.
Ancient Wooded Farmland / Wooded Hills and Farmlands: Parkland and Estate Farmland Conservation and Nature Recovery Zone 	• Conservation and enhancement of the integrity, settings and resilience of designed and planned estate landscapes that define the character of this zone; and • Use of mechanisms such as Environmental Land Management (ELM) to deliver partnership landscape proposals for biodiversity – historic landscape and farmland nature recovery networks.

Zone	Key aims
Coalfield Farmland Peri-Urban Enhancement Zone 	• Enhancement of the peri-urban landscapes and urban gateway sites on the Coalfield Farmlands; and • Creation of opportunities for multi-functional green infrastructure in close proximity to the principal towns, areas of population and communities.
Urban Green Infrastructure Enhancement Zone 	• Exploration of opportunities for closed loop urban greening to deliver urban shading and cooling and natural flood management at a 'micro' scale. This could be realised through Sustainable Drainage Systems (SuDS) elements such as swales and rain gardens.

9.7 Within the proposed green infrastructure network, a series of strategic green infrastructure interventions have been identified, set out at **table 9.2**. These respond to the functional and needs analysis set out in **section 8**, proposing a high level series of spatial and/or thematic interventions to guide green infrastructure resilience, connectivity and enhancement in the plan period and beyond. **Section 10** of this report sets out recommendations for future project delivery for both open spaces and the green infrastructure network, plus a series of principles for future green infrastructure delivery and management.

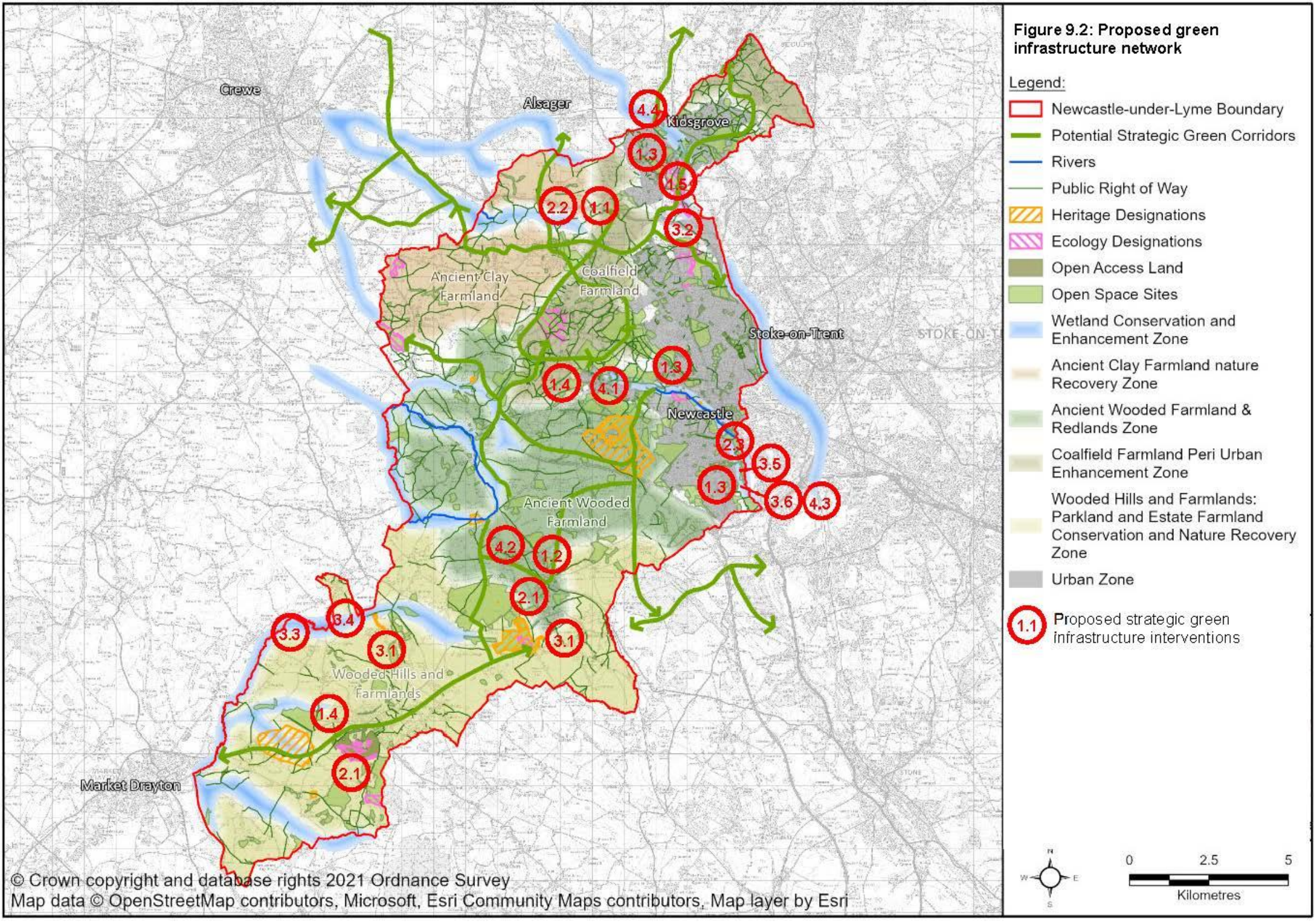


Table 9.2: Proposed strategic green infrastructure interventions (cross referenced to Figure 9.2)

Project No.	Name/description	Functions/services delivered	Rationale
1.1	Strategic connections across the A500 to upgrade strategic access links/fill gaps (linked also to project 2.2 below).		The GI functional analysis in **section 8** identified this as a key area of severance, supported by high level field survey.
Project 1.1 potential next steps: This project potentially links to a number of landscape, habitat and environmental improvement projects set out below for the A500 corridor. Working with SCC, there is the potential to explore an application to National Highways (Highways England) Designated Funds to take forward integrated environmental improvements, as part of their current investment plan to 2025[33].			
1.2	Opportunity to address the severances created by HS2 Phase 2a in the Meece Brook and Lea Valleys, and to use the legacy landscape created by the haul route for construction of HS2 as a green transport corridor with lateral links. Landscape connectivity and restoration opportunities from HS2 – ancient woodland sites and fieldscapes around Whitmore Wood,		The GI functional analysis in **section 8** identified key issues with natural environment and landscape connectivity in relation to the future presence of HS2 Phase 2a. The hybrid Bill and additional provisions landscape mitigation design for HS2 Phase 2a[34] identify opportunities for landscape scale connectivity proposals in this location.

[33] https://highwaysengland.co.uk/designated-funds/ Accessed 29th October 2021

[34] HS2 Phase 2a hybrid Bill design: https://www.gov.uk/government/collections/hs2-phase-2a-environmental-statement#volume-5:-route-wide-environmental-reports-and-maps Accessed 29th October 2021. For Additional Provisions (AP) design post hybrid Bill submission, see https://www.gov.uk/government/collections/hs2-phase-2a-additional-provision-and-supplementary-environmental-statement-and-march-2018 Accessed 29th October 2021

Project No.	Name/description	Functions/services delivered	Rationale
	Hey Sprink and the Meece Brook and Lea Valleys, plus also landscape restoration enhancement opportunities associated with HS2 at Stableford and Baldwin's Gate.		
Project 1.2 potential next steps: There is the potential for a partnership project working with landowners, farm clusters, the Staffordshire Wildlife Trust and HS2 Ltd through the Green Corridor initiative and through targeted application to HS2's Community Environment Fund (CEF) Strategic Fund, which is accessible to both community and not-for profit organisations[35].			
1.3	Enhancement of cycle commuting routes in the urban areas.		The need for enhancements in this area were identified both through the GI functional analysis in **section 8** and stakeholder engagement.
Project 1.3 potential next steps: Aspects of project delivery for this project could potentially be realised through an application to Government's Active Travel Fund which is being introduced in phases in response to the Covid-19 pandemic and the need to create safe, open air travel and commuting routes[36].			
1.4	Address local gaps in PRoW provision which could then create a more strategic, connected access		The initial phases of the spatial analysis identified these as potential strategic gaps in provision within the access and active travel network.

[35] https://hs2funds.org.uk/home/community-environment-fund/ Accessed 29th October 2021

[36] https://www.gov.uk/government/news/2-billion-package-to-create-new-era-for-cycling-and-walking Accessed 29th October 2021

Project No.	Name/description	Functions/services delivered	Rationale
	network, e.g. Silverdale and Apedale, plus near Birchenwood Country Park and Hales.		
Project 1.4 potential next steps: Aspects of PRoW/access improvements, could potentially be delivered through targeted applications to Government's Active Travel Fund, referred to above. This is particularly likely to be relevant where PRoW's also fulfil a commuting function in urban or peri urban areas, or where they could form a route to key destinations such as recreational or tourist sites.			
1.5	Urban parks enhancement and programming.		Baseline research for the spatial analysis in **section 8** revealed that whilst key parks are valued and well-used during the day, a number of them have night-time safety issues. Activation and community/audience development programming for such sites is one helpful way to potentially reduce such issues.
Project 1.5 potential next steps: An enhancement programme is already in place at Bathpool Park with an active Friends group and the establishment of the Woodland Trust's Country Park. These hybrid approaches to delivery and management can work well for urban park enhancement when they are clearly co-ordinated and managed. A number of other historic park sites such as Clough Hall Park could form a focus for a grant application to the National Lottery Heritage Fund (NLHF) which now has an increasing focus on community heritage and community development projects, particularly in areas of deprivation and where social equity can form part of the development of a project. The NLHF also has a focus on grant fund applications as part of the green recovery from the Covid-19 pandemic and for heritage enterprise projects to facilitate economic growth and regeneration[37].			

[37] https://www.heritagefund.org.uk/publications/priorities-national-lottery-grants-heritage-2021-22 Accessed 29th October 2021

Project No.	Name/description	Functions/services delivered	Rationale
2.1	Ancient woodland connectivity and enhanced connective planting to link ancient and semi natural woodland sites and create more of a rewilded farmland landscape mosaic/network of habitats for nature recovery.		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of a principle of more regenerative approaches to agriculture assisting with the delivery of policy priorities such as nature recovery in rural areas.
Project 2.1 potential next steps: With the exception of areas of woodland connectivity and restoration in the context of HS2 Phase 2a (Meece Brook and Lea Valleys), much of this is likely to be achieved through the new subsidies for Environmental Land Management (ELM) via DEFRA as an eventual replacement for the Countryside Stewardship schemes which are being phased out by 2024.			
2.2	Enhancement of the A500 corridor, also considering peri-urban sites such as restored landfill sites.		The rationale for this scheme links to that for project 1.1 described above. A general opportunity for integrated and multi-functional enhancement in relation to this road corridor was also noted in the spatial analysis at **section 8**.
Project 2.2 potential next steps: This project potentially links to a number of landscape, habitat and environmental improvement projects set out below for the A500 corridor. Working with SCC, there is the potential to explore an application to National Highways (Highways England) Designated Funds to take forward integrated environmental improvements, as part of their current investment plan to 2025			
2.3	Lyme Brook enhancements: Multi-functional landscape restoration and enhancement, not just for amenity and landscape experience and		The need for this project was revealed both through the spatial analysis at section 8 and through stakeholder engagement. The project has the potential for a whole valley, partnership delivery approach when considered with other related

Project No.	Name/description	Functions/services delivered	Rationale
	setting, but also potentially natural flood management and biodiversity.		projects below (much as has been achieved with parts of the Bollin and Trent valleys).
Project 2.3 potential next steps: Dialogue with potential partners such as the Environment Agency, the Staffordshire Wildlife Trust, Friends group and site and facilities operators, plus user groups, should be used to scope a brief and/or roadmap for phased project development, design and delivery.			
3.1	Landscape management to enhance connectivity and assist in reversing fragmentation between priority habitat assets and sites, as part of a landscape scale, landscape character informed and multi-functional approach.		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of a principle of more regenerative approaches to agriculture assisting with the delivery of policy priorities such as nature recovery in rural areas.
Project 3.1 potential next steps: Much of this is likely to be achieved through the new subsidies for Environmental Land Management (ELM) via DEFRA as an eventual replacement for the Countryside Stewardship schemes which are being phased out by 2024.			
3.2	Localised wilding in marginal areas of the Trent and Mersey Canal.		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of habitat connectivity and rewilding to assist with the delivery of policy priorities such as nature recovery in rural areas.

Project No.	Name/description	Functions/services delivered	Rationale
Project 3.2 potential next steps: Some aspects of this project could be achieved through the new subsidies for Environmental Land Management (ELM) via DEFRA as an eventual replacement for the Countryside Stewardship schemes which are being phased out by 2024. They could also potentially be achieved through EA funding and consenting processes for environmental improvement works.			
3.3	Naturalisation and restoration of sections of the Valley Brook and River Tern to create richer aquatic habitat potential and space for water linked to a natural flood management approach.		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of habitat connectivity and rewilding to assist with the delivery of policy priorities such as nature recovery in rural areas.
Project 3.3 potential next steps: Dialogue with the relevant teams within the Environment Agency would be the first step in the process, to determine and scope the level to which proposals could assist with flood risk management priorities (and therefore access to available funding streams), as well as to determine the specific consents, surveys and investigations required.			
3.4	Definition of riparian buffer zones to reinforce habitat and restrict cattle poaching and trampling, as well as to protect and enhance other key aquatic/blue infrastructure assets such as meres and pools.		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of a principle of more regenerative approaches to agriculture assisting with the delivery of policy priorities such as nature recovery in rural areas.
Project 3.4 potential next steps: Much of this is likely to be achieved through the new subsidies for Environmental Land Management (ELM) via DEFRA as an eventual replacement for the Countryside Stewardship schemes which are being phased out by 2024. Aspects of this project could also be realised through partnership working			

Project No.	Name/description	Functions/services delivered	Rationale
cross boundary with Cheshire East Council (CEC), as related riparian projects are also identified in the CEC Green Infrastructure Strategy (such as the River Weaver). Dialogue with the relevant teams within the Environment Agency would also be one of the first steps in the process, to determine and scope the level to which proposals could assist with flood risk management priorities (and therefore access to available funding streams), as well as to determine the specific consents, surveys and investigations required.			
3.5	Specific proposals for improved land management of brooks and ponds to reducing over shading and silting (Coal Brook), to better manage wetland ecosystems and habitats, as well as buffer zones to capture agricultural run-off (River Lea).		The need for this was partly revealed through the functional analysis in **section 8**, and more widely as part of proposals to enhance water quality and habitat value of rivers and watercourses, and rewilding to assist with the delivery of policy priorities such as nature recovery in rural areas.
Project 3.5 potential next steps: Dialogue with the relevant teams within the Environment Agency would be the first step in the process, to determine and scope the level to which proposals could assist with their wider aims, objectives and regulatory responsibilities under mechanisms such as the Water Framework Directive (WFD), and therefore access to available funding streams, as well as to determine the specific consents, surveys and investigations required.			
3.6	Exploration of partnerships and joint working with the Trent Rivers Trust and other related stakeholders as part of a catchment scale/whole valley approach. Potential River Valley park initiative for Lyme Brook.		The rationale for this project is linked to that for project 2.3, described above.

Project No.	Name/description	Functions/services delivered	Rationale
Project 3.6 potential next steps: Dialogue with potential partners such as the Environment Agency, the Staffordshire Wildlife Trust, Friends group and site and facilities operators, plus user groups, should be used to scope a brief and/or roadmap for phased project development, design and delivery.			
4.1	Urban tree planting and 'urban forestry' initiatives to trunk road and principal road corridors and associated swathes of greenspace (subject to operational and other constraints).		The rationale for this project links to that for projects 1.1 and 2.2, described above.
Project 4.1 potential next steps: This project potentially links to a number of other landscape, habitat and environmental improvement projects set out below for the A500 corridor. Working with SCC, there is the potential to explore an application to National Highways (Highways England) Designated Funds to take forward integrated environmental improvements, as part of their current investment plan to 2025.			
4.2	Landscape scale natural flood management proposals in the Meece Brook valley, Lea Valley and at/around Stableford as part of mitigation for the planned HS2 Phase 2a alignment.		The rationale for this project was identified in the functional analysis at **section 8**. A number of the proposals within the route alignment of the Phase 2a HS2 scheme granted Royal Assent would have implications for flood zones and WFD matters in these valleys, supporting the rationale for positive action.

Project No.	Name/description	Functions/services delivered	Rationale
Project 4.2 potential next steps: There is the potential for a partnership project working with the Environment Agency, landowners, farm clusters, the Staffordshire Wildlife Trust and HS2 Ltd through the Green Corridor initiative and through targeted application to HS2's Community Environment Fund (CEF) Strategic Fund, which is accessible to both community and not-for profit organisations.			
4.3	Naturalisation and restoration of parts of the Lyme Brook, as part of a 'space for water' and resilient, multi-functional design approach.		The need for this project was revealed both through the spatial analysis at **section 8** and through stakeholder engagement. The project has the potential for a whole valley, partnership delivery approach when considered with other related projects above e.g. project 2.3 (much as has been achieved with parts of the Bollin and Trent valleys).
Project 4.3 potential next steps: Dialogue with potential partners such as the Environment Agency, the Staffordshire Wildlife Trust, Friends group and site and facilities operators, plus user groups, should be used to scope a brief and/or roadmap for phased project development, design and delivery.			
4.4	Integrated natural flood management partnership proposals with Stoke-on-Trent for relevant parts of the Fowlea Brook and the Trent and Mersey Canal.		The need for this project was revealed both through the spatial analysis at **section 8**.
Project 4.4 potential next steps: Dialogue with potential partners such as the Environment Agency, the Canal & River Trust, the Staffordshire Wildlife Trust, landowners/farm clusters should be used to scope a brief and/or roadmap for phased project development, design and delivery.			

Project No.	Name/description	Functions/services delivered	Rationale
5.1	Enhanced greenspace access links, legibility, signage and routes to address access deficits and severances.		The need for this project was revealed both through the spatial analysis at **section 8**.
Project 5.1 potential next steps: This is a cross cutting project/principle of good green infrastructure planning, design and management. Much of it could be delivered in parallel with other projects above and associated funding applications such as Designated Funds, ELM and Covid-19 recovery focused Active Travel funds provided by Government, among others. The project is also a cross boundary project which could be partly delivered in collaboration and partnership with adjacent local authorities, as it links into Staffordshire Moorlands GI Strategy project 6: Biddulph Corridor (along the Biddulph Valley Way) and project 7: Gritstone Way (along the Staffordshire Way).			

Links to projects set out in the previous 2017 Green Infrastructure Strategy

The projects identified in **table 9.2** above complement and link to a number of existing proposed interventions set out within the 2017 Green Infrastructure Strategy. Some of these are still of relevance to this new strategy and can relate to the new projects as part of a strategic and integrated approach to the ongoing planning and delivery of green infrastructure in the borough. These projects and their links to relevant 2017 interventions are identified in **table 9.3** overleaf.

Table 9.3: Existing 2017 GI Strategy projects taken forward and links to projects proposed in this GI Strategy

Projects proposed in this strategy	Linked interventions proposed in the 2017 GI Strategy
1.1: Strategic connections across the A500 to upgrade strategic access links/fill gaps (Linked also to project 2.2 below).	N4 a) Landscape improvements to create welcoming gateways to The Potteries N4 c) Urban forestry and tree belts to road corridors for air filtration, noise attenuation and other benefits
1.2: Opportunity to address the severances created by HS2 Phase 2a in the Meece Brook and Lea Valleys, and to use the legacy landscape created by the haul route for construction of HS2 as a green transport corridor with lateral links. Landscape connectivity and restoration opportunities from HS2 – ancient woodland sites and fieldscapes around Whitmore Wood, Hey Sprink and the Meece Brook and Lea Valleys, plus also landscape restoration enhancement opportunities associated with HS2 at Stableford and Baldwin's Gate. This project intervention also relates to potential opportunities for the Silverdale Mineral Railway line as an active travel corridor, subject to HS2.	N1 b) Woodland conservation N1 c) Woodland connectivity proposals
1.3: Enhancement of cycle commuting routes in the urban areas.	-
1.4: Address local gaps in PRoW provision which could then create a more strategic, connected access network, e.g. near Birchenwood Country Park and Hales.	N1 d) Rights of way improvements N6 b) rights of way conservation and enhancement
1.5: Urban parks enhancement and programming.	N7 e) Public engagement, volunteer activities and citizen science projects

Projects proposed in this strategy	Linked interventions proposed in the 2017 GI Strategy
2.1: Ancient woodland connectivity and enhanced connective planting to link ancient and semi natural woodland sites and create more of a rewilded farmland landscape mosaic/network of habitats for nature recovery.	N1 b) Woodland conservation N1 c) Woodland connectivity proposals
2.2: Enhancement of the A500 corridor, also considering peri-urban sites such as restored landfill sites.	N4 a) Landscape improvements to create welcoming gateways to The Potteries N4 c) Urban forestry and tree belts to road corridors for air filtration, noise attenuation and other benefits
2.3: Lyme Brook enhancements: Multi-functional landscape restoration and enhancement, not just for amenity and landscape experience and setting, but also potentially natural flood management and biodiversity.	Green Corridor G5: Lyme Valley Parkway and associated strategic interventions/principles, namely: G5 a) Conservation and maintenance of existing green infrastructure G5 b) Avoidance of further urban encroachment G5 c) Use of landscape to screen urban elements G5 d) Small scale interventions to deliver biodiversity enhancement G5 e) Enhancement of path surfaces, signage and increased interpretation
3.1: Landscape management to enhance connectivity and assist in reversing fragmentation between priority habitat assets and sites, as part of a landscape scale, landscape character informed and multi-functional approach.	N1 b) Woodland conservation N1 c) Woodland connectivity proposals N5 b) Woodland management and planting N5 c) Countryside management to address recreational pressures N7 a) Urban fringe connectivity improvements
3.2: Localised wilding in marginal areas of the Trent and Mersey Canal.	-
3.3: Naturalisation and restoration of sections of the Valley Brook and River Tern to create richer aquatic	-

Projects proposed in this strategy	Linked interventions proposed in the 2017 GI Strategy
habitat potential and space for water linked to a natural flood management approach.	
3.4: Definition of riparian buffer zones to reinforce habitat and restrict cattle poaching and trampling, as well as to protect and enhance other key aquatic/blue infrastructure assets such as meres and pools.	-
3.5: Specific proposals for improved land management of brooks and ponds to reducing over shading and silting (Coal Brook), to better manage wetland ecosystems and habitats, as well as buffer zones to capture agricultural run-off (River Lea).	N1 a) Conservation and protection of existing GI assets
3.6: Exploration of partnerships and joint working with the Trent Rivers Trust and other related stakeholders as part of a catchment scale/whole valley approach. Potential River Valley park initiative for Lyme Brook and the part of the Trent.	-
4.1: Urban tree planting and 'urban forestry' initiatives to trunk road and principal road corridors and associated swathes of greenspace (subject to operational and other constraints).	N7 a) Urban greening for connectivity N7 f) Unsealed surfaces for climate adaptation, carbon sequestration and nutrient cycling N7 g) Urban productive landscapes, community growing and food
4.2: Landscape scale natural flood management proposals in the Meece Brook valley, Lea Valley and at/around Stableford as part of mitigation for the planned HS2 Phase 2a alignment.	Potential links to projects N1 a) b) and c) identified above
4.3: Naturalisation and restoration of parts of the Lyme Brook, as part of a 'space for water' and resilient, multi-functional design approach.	G5 a) Conservation and maintenance of existing green infrastructure G5 c) Use of landscape to screen urban elements G5 d) Small scale interventions to deliver biodiversity enhancement

Projects proposed in this strategy	Linked interventions proposed in the 2017 GI Strategy
4.4: Integrated natural flood management partnership proposals with Stoke-on-Trent for relevant parts of the Fowlea Brook and the Trent and Mersey Canal.	-
5.1: Enhanced greenspace access links, legibility, signage and routes to address access deficits and severances.	Various interventions, including N1 d), N4 a), N6 b), G5 e)

10 OPEN SPACE AND GREEN INFRASTRUCTURE DELIVERY

10.1 This section brings together the findings in relation to open space and green infrastructure and sets out an action plan for open space and green infrastructure delivery across Newcastle-under-Lyme Borough to 2040. This is supported by high level recommendations to embed key GI messages from this strategy within the Local Plan, plus strategic principles to guide the provision, design and delivery of multi-functional green infrastructure. Next steps and suggested arrangements for monitoring and review of project delivery as it progresses during the plan period, are also discussed in this section.

An action plan for open space and green infrastructure in Newcastle-under-Lyme Borough

10.2 This section and **Table 10.1** sets outs a series of actions which will be carried out to meet the visions for both open space and green infrastructure in Newcastle-under-Lyme Borough. It lists each broad objective, how each will be achieved and who is responsible for achieving them. Where appropriate a priority level is indicated and further considerations highlighted. The programme should be reviewed annually, and targets monitored to ensure actions have been achieved.

10.3 The actions have been prioritised on criteria of importance and urgency as follows:

Low: Actions which have a low impact on open space and GI provision.

Medium: Actions which have a moderate impact on open space and GI provision.

High: Actions which have a significant impact on open space and GI provision.

Table 10.1: Open Space and Green Infrastructure Action Plan

Ref.	Action	Task	Resources	Priority	Notes
Objective 1: Futureproof quantitative provision in light of planned population growth; maintain the accessibility, quality and value/location of the open space network					
1.1	Ensure all Wards achieve the minimum standard for GI and open space provision.	Ensure any new development provides open space to achieve the standard for quantity and/or provides appropriate shared use access links to strategic GI resources. It should provide for all user and age groups where appropriate. NB	NULBC	Medium	

Ref.	Action	Task	Resources	Priority	Notes
		Proposed standards shown in **Table 5.1**.			
1.2	Retain at least 7 Green Flag Award (GFA) open space sites over the next five years.		NULBC	Medium	2021 GFA Awards: Bathpool Park, Brampton Park, Keele Cemetery, Lyme Valley Park, Newcastle Crematorium, Queens Gardens, Wolstanton Park
1.3	Continuation of participation and celebration of 'Britain in Bloom'.		NULBC	Medium	30 year involvement in the scheme in 2021. The scheme has environmental benefits in addition to encouraging community involvement and raising awareness of open space management as a valued council service.
1.4	Where possible residents should be within the accessibility catchment of an open space typology and/or ANG threshold and at least one play area offering features for all age groups and abilities.	Review accessibility catchments. Where there are gaps in provision the creation of additional open space will be recommended, wherever possible, in partnership with others and as part of new developments. Alternatively and where this is not practicable, deficits may be addressed by enhanced access links to existing open space, GI resources and sites.	NULBC	Medium	
1.5	Aim to conduct an audit of open space, GI and play area provision every 10 years.	Conduct audits regularly in reference to previous audits and the latest best practice guidance.	NULBC	Medium	
1.6	Ensure good access and comply with the Equality Act (2010)	Conduct a disability and access audit for new sites or those	NULBC/ Land and	Low	

Ref.	Action	Task	Resources	Priority	Notes
	through a disability and access audit.	sites due for renewal and enhancements.	asset managers		
1.7	Review the location of allotments within wards, number, waiting lists and costs as this will provide a good indicator of need in particular wards.		NULBC	Medium	The National Allotment Society president recommends consideration of self-management as well as applying to have plots made an Asset of Community Value.
1.8	Maintaining and enhancing the multi-functional open space and GI resource: Enhancement of landscape investment, management and maintenance within NULBC.	Refer to contribution criteria within **Figure 5.8**. to aid prioritisation and decisions regarding open space creation, removal, modification or enhancement.	NULBC	High	NULBC's resources for management of current levels of provision are limited
1.9	New open space and semi natural greenspace should be sensitively designed to reflect sensitivities of landscapes, settlements as well as local character.		NULBC/Land and asset managers	Medium	Reference can be made to the latest *National Model Design Code, West Midlands Design Charter* and the *Building with Nature Standards Framework 2.0.*
1.10	Encourage communities and stakeholders to report issues relating to open space to NULBC to enable a quick response to problems.	Potential to advertise a NULBC point of contact at key sites,	NULBC	Low	
1.11	Seek opportunities to provide natural play features and alternatives to fixed play equipment.	Review those sites which are closed for maintenance or requiring enhancements.	NULBC	Medium	Liaise with RoSPA Playsafety to check designs and standards. Refer to Play England's 2008 10 core principles within *Design for Play*
Objective 2: Maximise funding streams and opportunities for the maintenance of improvement of open space and green infrastructure					
2.1	Review appropriate developer contributions.		NULBC	High	

Ref.	Action	Task	Resources	Priority	Notes
2.2	Re-evaluate formulae for greenspace maintenance contributions.		NULBC	Medium	
2.3	Seek fundraising opportunities and open space funding.		NULBC	Medium	Opportunities and online tools may include Grantfinder, Funds Online, the Association of Play Industries and the National Lottery Heritage Fund. Also Government Active Travel funding streams introduced as part of the national effort towards Covid-19 recovery.
2.4	Seek recent environmental funding support and initiatives.		NULBC	Medium	Considerations may include the Greener Recovery Challenge Fund, Nature for Climate Fund, Trees for Streets, HS2 Woodland Fund and HS2 Community Environmental Fund – Strategic - and the new Environmental Land Management (ELM) Scheme. Also National Highways Designated Funds RIS1 and RIS funding streams and Government's Active Travel Fund.
2.5	Review capital investment and separate budgets to inform capital plan for ageing equipment and facilities.	Refer contribution criteria within **Figure 5.8**. to aid prioritisation and decisions regarding open space creation, removal, modification or enhancement.	NULBC	Medium	
2.6	Maximise and protect the potential of Section 106 (S106) and Community		NULBC	Medium	Utilise quality and value/location scores and present data to town and parish councils.

Ref.	Action	Task	Resources	Priority	Notes
	Infrastructure Levy (CIL) Funding.				
2.7	Potential for quick wins for example relaxing mowing regimes to enhance wildspace functionality where safe and practical to do so and reduction in non-multifunctional sites and LAPs and subsequent maintenance liability.	Refer contribution criteria within **Figure 5.8**. to aid prioritisation and decisions regarding open space creation, removal, modification or enhancement.	NULBC	Low	
2.8	Utilise natural environment valuation tools and a natural capital approach (such as natural capital accounting) for greenspace where feasible.	Seek specialist consultancy natural capital and valuation guidance where required. New guidance has been made available regarding woodland creation and calculation tools: Forestry Commission's *Woodland Creation Case Studies – Helping local authorities respond to the climate emergency – How woodlands can support your net zero plans*	NULBC	Medium	Tools may include: B£ST, OrVAL, NATURE, NEVO, Natural England and DEFRA's Environmental Benefits from Nature (EBN) tool, Greenkeeper, Health Economics Assessment Tool for Cycling and Walking (HEAT), i-Tree, Local Environment and Economic Toolkit (LEET), Forestry Commission Woodland Valuation Tool.
Objective 3: Raise awareness of the importance of nature-based solutions, open space and green infrastructure					
3.1	Support access to open space and GI provision through publicising existing distribution with an online map.		NULBC	Medium	
3.2	Publicise this Open Space and Green Infrastructure Strategy and its aims and foster engagement.		NULBC	Medium	
3.3	Improve signage and wayfinding between sites.	Review access routes and aim to provide additional information on some of the larger sites and routes e.g.	NULBC	Medium	

Ref.	Action	Task	Resources	Priority	Notes
		estimated walking times.			
3.3	Participate in the Government's Local Nature Recovery Network Scheme and aim to contribute to any consultation.		NULBC	Medium	Recent consultation deadline runs until 02/11/21. The scheme is part of the wider Nature Recovery Network aiming to create or restore 500,000 hectares of wildlife habitat.
3.5	Future nature-based, open space and green infrastructure initiatives and projects should be shared with communities to garner support.	Media options to share information on future plans: existing open space and relevant facilities; newsletters and leaflets; posters and other local media.	NULBC	High	
Objective 4: Communicate and engage with key partners and stakeholders					
4.1	Engage in a programme of user and resident consultation to understand provision requirements and encourage community participation in local projects.	Suggest increase user satisfaction in NULBC parks and open space over the next 5 years. This could potentially be realised through biannual residents open space surveys or similar.	NULBC	High	
4.2	Work with town and parish councils to encourage local ownership of resources in open space, play areas, nature recovery and green infrastructure networks.		NULBC	High	Further information within 2011 Play England guidance *Parish councils and children's play – Community play briefing 7*. For certain sites requiring preservation of its recreational value consider the relevant application of covenants, town and village green registrations, the planning system and Deed of Dedications.
4.3	Work with other open space facility providers such as Housing Associations to ensure		NULBC	Medium	

Ref.	Action	Task	Resources	Priority	Notes
	their provision is secured.				
4.4	Encourage community groups to assist with site maintenance, supervision and fundraising.	Increase community involvement in open space management by supporting at least one new group or individual per year over the next five years.	NULBC	Medium	Further information within COMA 2016 guidance *Community ownership and management of parks and green spaces* and Play England 2011 guidance *Managing play provision in the community and voluntary sector - Community play briefing 6.*
4.5	Subject to available resources, seek to encourage responsibility through Trusts, Friends Groups and Residents Groups.		NULBC	Medium	
4.6	Strengthen links with local Health and Wellbeing Boards and similar cross sector organisations. They may assist in allocating funding for health and well-being priorities and objectives.		NULBC	Medium	Potential to explore ongoing findings within Sport England's Active Lives Surveys which measure the activity levels of people across England.
4.7	Consultation to be carried out with communities and stakeholders if sites are proposed to be decommissioned.		NULBC	Medium	
4.8	Explore options to become a member of the Midlands Parks Forum to collaborate on strategic issues and initiatives.		NULBC	Medium	Potential to also have involvement with the Parks Management Association.
4.9	Continue to work with the surrounding local authorities to ensure access to open space sites outside of the		NULBC	Medium	

Ref.	Action	Task	Resources	Priority	Notes
	borough is secured for use by its residents.				
Objective 5: Utilise planning policy to enhance NbS, open space and green infrastructure provision					
5.1	Seek opportunities to secure land for open space/green infrastructure provision and nature recovery.		NULBC	Medium	Consider designation of local green space (LGS) to assist with protection. Typically considered during preparation or review of the Local Plan or Neighbourhood Plan.
5.2	Create and use policy to support a targeted response to need. A strategic approach is required to open space and green infrastructure. This will enable targeted improvements to the quality and value of sustainable and multi-functional green infrastructure provision across NULBC.		NULBC	High	Further information within CABE 2008 guidance *Open Space Strategies – Best Practice Guidance* and Play England 2009 guidance *Better Places to Play Through Planning*
5.3	Planning teams to aim to work together to re-evaluate developer contributions, plus spatial planning and development management teams to work together to ensure that the objectives of this Open Space and Green Infrastructure Strategy are achieved through the planning, design and development processes.		NULBC	Medium	Subject to resources, aim to create a Supplementary Planning Document (SPD) Recreation Open Space Developer Contributions and Planning Obligations. Consultation required and time consuming.
5.4	Re-classify and/or review sites for new policies where required.		NULBC	Medium	
5.5	Protect and allocate open space and GI sites and assets where possible in the Local Plan.		NULBC	Medium	

Ref.	Action	Task	Resources	Priority	Notes
5.6	NULBC Urban Tree Planting Strategy: On 7th July 2021 the Cabinet approved the borough's Urban Tree Planting Strategy which set out its approach for the management and improvement of the urban forest of Newcastle-under-Lyme. It was resolved that: • The proposed Urban Tree Planting Strategy be approved for immediate implementation and included in the Urban Forest Strategy when the review is completed. • Ward Members of urban wards in the Borough and local communities be asked to propose potential sites for tree planting in their wards. • Opportunities to work together with local organisations and landowners be pursued. • Investigations be made into opportunities to take part in the project to plant an Urban Tree Canopy as part of the celebrations for the Queen's Platinum Jubilee in 2022. • An Urban Tree Planting Action Plan be prepared to guide tree-planting projects and link into the Council's Sustainable Environment Strategy.		NULBC	High	
Objective 6: Regular review and communication					
6.1	Provide a presentation to Planning departments on the new Open Space and Green Infrastructure Strategy.		NULBC	Medium	
6.2	Implement the Strategy and make available to staff at all levels and by different stakeholders.		NULBC	High	
6.3	Implement effective monitoring of the Open Space and Green Infrastructure Strategy.	Relevant departments should ensure a system is developed for regular effective monitoring of the Open Space and Green Infrastructure Strategy. Any data updates and	NULBC	High	

Ref.	Action	Task	Resources	Priority	Notes
		recent policy/guidance should be identified. .			
6.4	Ensure that if open space and green infrastructure assets are to be removed or modified significantly there should be appropriate consultation with the community.		NULBC	High	

Principles for green infrastructure design, delivery and management

10.4 Some high level key principles for successful design, delivery and management of sustainable and multi-functional green infrastructure and NbS in NULBC are set out below. These are based on the RSK team's past experience of delivering similar projects and informed by the stakeholder interaction and baseline research and field surveys undertaken for this project. They also complement the 8 objectives set out in the 2017 GI Strategy, as described in the previous chapter and are design to be used with those.

10.5 The principles are organised under the following 5 key themes:

- Collaborative, partnership working.
- Effective and evidenced projects which align with multiple/wider priorities.
- Consider multiple benefits over time; incremental design and delivery.
- Factor in management and maintenance investment from the start; and
- Monitor, evaluate and communicate success.

Collaborative, partnership working

10.6 This is one of the touchstones of effective GI design and delivery, enabling synergies and efficiencies, and good use of shared resources (information, data, engagement, contextual information) to be realised from the outset of any GI project. Collaborative partnership working potentially avoids the 'reinvention of wheels' and enables good practice and lessons learned to be disseminated. It also has the potential to spread the risk and cost of project delivery, with multiple partners coming together with a little to achieve an end greater than the sum of its parts. This is in reality how many larger scale green infrastructure and nature-based initiatives have been successfully delivered on the ground and into ongoing use and management. It is also a particularly good way of realising community led GI projects, where resources may be limited.

Effective and evidenced projects which align with multiple/wider priorities

10.7 Evidence and a good audit trail are really at the heart of planning and designing good green infrastructure interventions which will work and prove to be effective.

10.8 As demonstrated in a strategic sense by this green infrastructure strategy, a sound evidence base or a clear sense of project being clearly grounded in an underlying need or rationale not only helps it meet the planning tests of soundness in the NPPF. It will also help it withstand scrutiny through the planning and development process and with grant aid funders if a project is being funded via such a route.

10.9 In a similar vein, as grant aid funding often seeks to respond to multiple policy priorities and grant funder's own objectives may be many and varied, GI projects should seek to respond to the widest possible range of relevant environmental, social and economic policy priorities. This will maximise their effectiveness and resilience.

10.10 At the project design stage this can be realised by effective and early inter-disciplinary project team co-ordination, so that opportunities to address multiple functions and issues are realised from one site or project.

10.11 Natural capital accounting can also be an extremely useful tool during the implementation and operational life of a project, as it can enable the measurement of benefits of NbS / GI interventions over the baseline. Where interventions are successful, it can also help build the case for replicating interventions elsewhere to begin creating nature based or nature recovery networks, as well as to help prioritise the case for ecosystems services restoration and recovery.

10.12 Replicability and scale-ability or adaptability are often useful considerations to have in mind when planning and designing NbS and GI interventions.

Consider wider benefits over time: incremental design and delivery

10.13 A flexible approach is really key to designing and delivering effective GI, particularly where there may be competition for limited resources. It is often over time that we realise the greatest range of benefits and additionality of benefit from NbS and GI interventions.

10.14 It is therefore important not only to communicate this to project stakeholders, sponsors and supporters but also user groups, so that they can understand and appreciate why decisions have been taken.

10.15 It may also be helpful to considered phased design and delivery as part of an incremental approach to delivering a site masterplan which can be delivered over time as and when funding opportunities and resource availability aligns. A 'little steps' approach like this can also be very helpful where funds are limited as it enables each stage to be evaluated for its effectiveness and impact and refinements to be implemented to maximise the positive impact of later stages of the scheme.

Factor in management and maintenance investment from the start

10.16 Linked to the above principle relating to realising the greatest benefit over time is factoring in appropriate and sustainable, adaptable management frameworks for the long term. This should also include allowance adequate and appropriate figures for associated revenue costs / on costs, which is essential to the long term success and credibility of any NbS or GI project.

10.17 It is helpful here to think about green infrastructure delivery as one would for the delivery of any other type of infrastructure project for a town or city – it would be unthinkable to not include provision for maintenance for such projects. GI and NbS are no different.

10.18 Appropriate management is needed to guide the maximisation and restoration of ecosystem services, and to ensure that NbS and GI projects continue to perform at their full potential and maximise the return on the initial capital investment, which can be substantial.

10.19 In a rural context, many of the management aims of landscape scale GI and nature recovery may be achieved through ELM and associated delivery of public goods and ecosystem services through land management / farming subsidies, or through partnership delivery in the form of farm clusters.

Monitor, evaluate and communicate success

10.20 Woking towards a set standard, whether Green Flag Award, the Building with Nature standards or the requirements for monitoring and evaluation set out by many grant aid funders to draw down grant funding, can be a very useful way to raise both design quality and the performance of proposed NbS and GI interventions. This because it not only challenges schemes, the assumptions within them and justifications for them, but also creates the potential for strong monitoring and evaluation frameworks to objectively assess performance of the interventions against stated needs and objectives.

10.21 The use of tools such as natural capital accounting can create a useful evidence base in this respect, measuring improvements in ecosystem service provision against the baseline condition and enabling the benefits or otherwise of specific design and management approaches to be clearly understood. It also enables the potential calculation of social and economic returns on the initial capital investment in GI and NbS. Like all successful monitoring and evaluation exercises, this helps the state the case for investment in further GI and NbS interventions, and replicating projects, to expand and enhance nature-based networks to create environmental resilience and adaptability at scale.

Green infrastructure spatial planning recommendations

10.22 Section 2 of this report has identified, within the policy hierarchy, the key policy, commitments, and documents that set out a clear approach towards planning for GI. By firstly setting out the pertinent international and national policy and commitments, this helped show how compliant Newcastle-under-Lyme Borough Council's (NULBC) and Staffordshire County Council's (SCC) adopted GI is with the NPPF, NPPG and international agreements such as Sustainable Development Goals. It was important to establish that contributions to the wider mitigation against climate change and reducing losses to ecosystem services/biodiversity should be driven from the local level.

10.23 Reviewing Staffordshire found that they have not adopted a robust GI Strategy which could be used by the Boroughs within the county to devise a comprehensive cross-boundary approach to GI planning at the local level. Furthermore, the key documents currently used consists of AECOM Climate Change Adaptation and Mitigation (2020) Staffordshire County Council - Carbon Sequestration & Natural Capital and AECOM

Staffordshire and Stoke-on-Trent Strategic Infrastructure Plan (2018-2038). Although both reports highlight mitigation against climate change impacts and the future infrastructure required to enhance strategic networks, they also highlight the large funding gap, which reiterates the need to make local level improvements cost effective and deliverable with the local plan period.

10.24 By reviewing NUL's existing planning policy position, it was found that NUL have a number of saved planning policies that were adopted in 2003, saved in 2007 and currently used in determining applications although they predate the NPPF. This said, they do cover a range of issues relating to types of green spaces, such as allotments, but would need updating to be NPPF compliant. The identified Joint Core Strategy (Core Spatial Strategy) policies with Stoke-on-Trent also focus on strategic networks (SP3) and OS (CSP5) particularly, therefore when recommending policy for just NUL in future, this OS policy will be a good starting point.

10.25 Within the adjacent Boroughs in Staffordshire, it was found that some Boroughs (Stoke-on-Trent and Staffordshire Moorlands) had overarching GI policies that are more recently adopted and related closely to evidence-based documents. Strategic policies also work for the identified LPA's but similar evidence would also need to be found to support this approach in NUL. In regard to neighbourhood planning two neighbourhood plans have been made by Loggerheads parish and Chapel and Hill Chorlton, Maer and Aston and Whitmore, but the remaining parishes have only neighbourhood plan areas designated. The neighbourhood plans did not contain specific policy for GI or OS but recognised the importance of protecting Local Green Spaces.

10.26 The points raised above suggest that the drafting of a new overarching GI policy drawing from evidence base documents, such as this strategy, would be an appropriate approach for NULBC to set out a new strategy for planning for GI. The recommendations made below will directly support this approach in future.

10.27 This project has sought to address:

- the need for an up to date and integrated GI/OS policy approach for NULBC;
- the issue of the funding gap preventing the delivery of GI improvements that are needed within NUL; and
- the inequality in accessing GI/OS networks within the borough.

10.28 Key points and recommendations in relation to the above issues are set out below.

The need for an up to date and integrated GI/OS policy approach for NULBC

10.29 This strategy is a useful starting point for open space and green infrastructure policy planning in the borough and for taking a landscape or borough scale approach. In order for open space and green infrastructure objectives to be delivered effectively in the plan period, it will be essential for planning policy to take on board the findings and recommendations in this strategy. There are many competing priorities that will need to be considered in the plan-making process. Accordingly we have set out below the key points from this strategy to take into consideration.

10.30 The National Planning Policy Framework sets out four tests of soundness against which the robustness of development plans, policies and projects can be evaluated. In order for plans to be 'sound' they must be:

1. **Positively prepared** – providing a strategy which, as a minimum, seeks to meet the area's objectively assessed needs; and is informed by agreements with other authorities, so that unmet need from neighbouring areas is accommodated where it is practical to do so and is consistent with achieving sustainable development.

   This strategy has made an objective, evidence-based assessment of need and demand with regard to open space and green infrastructure in the plan period, as discussed in sections 4 and 8. Stakeholder engagement on the development of the strategy has also included dialogue with the county council, or has identified the need for further joined up working with adjacent LPAs to deliver green infrastructure strategically where this was not possible in the timeframe for the work;

2. **Justified** – an appropriate strategy, taking into account the reasonable alternatives, and based on proportionate evidence.

   This strategy has followed an evidence-based, data driven approach, as documented in sections 4 and 8. This therefore provides appropriate justification for the courses of action proposed in the vision, strategy, landscape scale action zones and component proposed interventions set out in section 9. Key hooks for the development of an over-arching open space and green infrastructure policy are provided in wording for each of the open space and green infrastructure vision statements at sections 5 and 9.

3. **Effective** – deliverable over the plan period, and based on effective joint working on cross-boundary strategic matters that have been dealt with rather than deferred, as evidenced by the statement of common ground.

   The action plan set out earlier in this chapter has set out recommendations for phased delivery during the plan period and identifies appropriate adjacent LPA and other partners to take projects forward in future, as well as identifying cross boundary links with other LPA strategic GI projects in table 9.2. The supporting principles for green infrastructure at section 10.4 onwards provide practical guidance on effective and collaborative green infrastructure delivery.

4. **Consistent with national policy** – enabling the delivery of sustainable development in accordance with the policies in this Framework and other statements of national planning policy, where relevant.

   The green infrastructure approach is supported in the NPPF and is therefore consistent with national policy.

Funding gaps and prevention of delivery of required GI improvements

10.31 Table 9.2 and the Action Plan earlier in this chapter of the strategy identify potential funding streams and delivery models for the proposed strategic interventions, as well as potential organisations to consult with regarding future project delivery.

10.32 A key barrier to successful delivery of green infrastructure and nature-based solutions is revenue funding and the provision of sustainable and adequately resourced governance arrangements to ensure that the assets can be properly managed to achieve their potential and value.

10.33 A central part of this is that green infrastructure and nature-based solutions often achieve their greatest level of impact over time and when correctly managed. Management is closely linked to performance monitoring to track the delivery of outcomes. Natural capital accounting of individual schemes and projects as they are delivered is therefore recommended as a tool to track benefits achieved over the baseline, allied to the implementation of the management strategy or plan.

10.34 Management and governance of green infrastructure and nature-based solutions, much like their delivery, rely upon joined up partnership working, with groups and individuals collaborating to achieve an outcome greater than the sum of the inputs.

10.35 Management plans and strategies should clearly identify lead individuals responsible for delivery of specific aspects and should also identify continuity processes if sites are sold or transferred or if the individuals concerned move on. This should form part of the periodic monitoring and review process of the management plan itself, so that sustainable arrangements can be put in place and/or reviewed at the end of each 5 or 10 year phase of a management plan.

10.36 Many grant aid funding streams for delivery of green infrastructure and nature-based solutions, such as those realised through the National Lottery Heritage Fund or through environmental stewardship, are predicated on such an arrangement. This helps ensure sustainable use and management in the longer term and protects the often substantial initial capital investment.

10.37 This should also form a key principle for non-grant aid delivered projects and ideally should form part of the planning conditions for projects through the Development Management process.

Inequality in accessing green infrastructure and open space networks in the borough

10.38 Disparities in access provision and implications in areas of social and economic deprivation, are mapped and analysed in the GI functional analysis at section 8. This has formed the evidence base for the vision and strategic interventions and projects at section 9 which have been developed in response to this need.

Monitoring and review

10.39 Monitoring is central to measuring the performance of green infrastructure and nature-based projects and interventions, both for lessons learned/improvement, and to celebrate success and state the case for investment in further interventions. Often, there may be existing monitoring processes in place which can be adapted to evaluate the performance of green infrastructure, so there may not be need to ‘re-invent the wheel’. Some suggested and commonly used monitoring indicators are set out below:

- Natural capital accounting, based on baseline and scheme performance monitoring against an agreed set of ecosystem services.
- Monitoring and measurement of public goods provided through farmland nature recovery networks realised through Environmental Land Management (ELM) schemes. This could include natural capital approaches.
- Biodiversity Net Gain and Environmental Net Gain metrics for schemes, plus testing and recording this in scheme delivery and on-going management.
- Priority habitats and statutory and local nature conservation designations: Extent, type, area, condition and status whether favourable, unfavourable, recovering etc.
- English Woodland Creation Offer: Number of agreements active or being delivered, area and types of woodlands being realised.
- Hydrology: Rivers and streams in catchment management proposals and strategies – number and type of projects delivered and benefits realised.
- Enhanced biosecurity and reduction in invasive species through active and appropriate management.
- Type and quantity/area of nature-based solutions delivered within new projects and schemes.
- Type and quantity/area of natural flood management interventions delivered within new projects and schemes, including closed loop measures which could contribute to urban greening factor or similar standards and rain gardens, bioswales and Sustainable Drainage Systems (SuDS).
- Number of visitor attractions, sites and assets with active travel plans to facilitate car free modes of travel.
- Quantifiable improvement in accessible natural greenspace or ANG provision, whether through new or enhanced spatial provision or more particularly through enhanced access links; and
- User/visitor surveys to record satisfaction with parks and greenspaces.

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