

Bolton Open Space and Green Infrastructure Study

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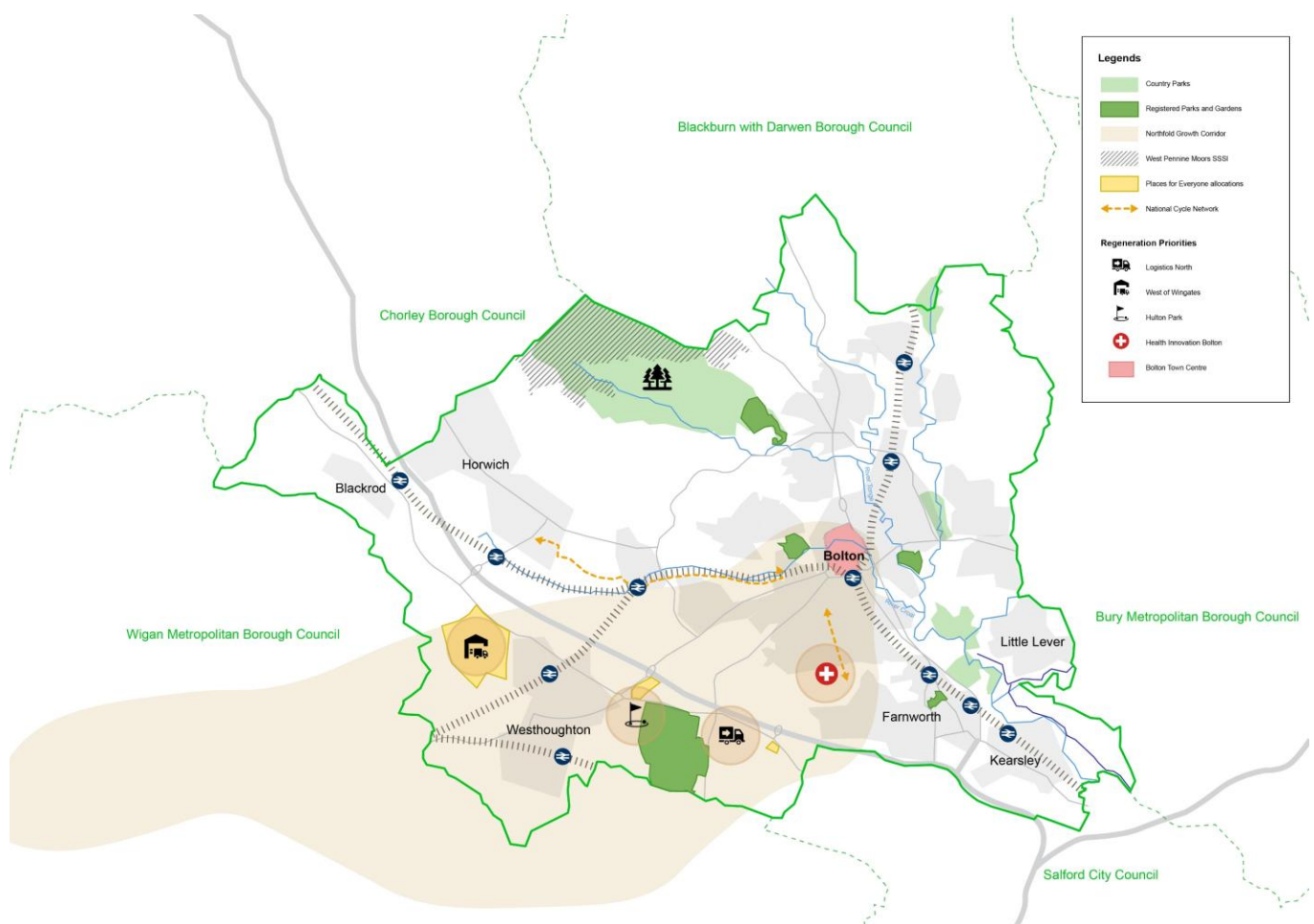
Volume 1: The State of the Network

Bolton Metropolitan Borough Council

Final report

Prepared by LUC

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Chapter 1

Key findings

How to use this study

How to use this chapter

Use this chapter to understand how different users (e.g. policy-makers, development management officers and applicants) should engage with the study. It provides a quick guide to where to find relevant information and how the two volumes should be used together.

1.1 Volume 1 (this document) is the evidence base, which sets out analysis of the open space and green infrastructure provision in the borough, accessibility and deficiency mapping and identifies key issues and opportunities.

1.2 Volume 2 of this study translates the evidence and analysis set out in **Volume 1** into a clear framework for policy development, decision-making and delivery. It contains information on policy implications and recommendations, proposed standards and delivery mechanisms and implantation considerations.

1.3 The study has been structured to support a range of users involved in plan-making, development management, design of schemes, and investment decisions. It is intended to function as a practical guide, enabling users to quickly identify:

- the relevant evidence.
- the applicable standards and expectations.
- and the implications for policy and development.

If you are **preparing policy** → see Volume 2 Chapters 2 and 3.

If you are **assessing applications** → see Standards (Volume 2, Chapter 2 and Appendix A) + Volume 1 maps.

If you are **designing and implementing schemes** → start with Volume 2 (with a focus on Appendix A), then cross-reference with the analysis set out in Volume 1.

Using the Study: Key User Groups

1.4 Different users will engage with the study in different ways. The structure of both volumes has been designed to allow each group to quickly access the information most relevant to their needs.

1. Those preparing policy (Local Plan policy makers, elected members, planning inspectors, communities and neighbourhood groups)

Purpose: To prepare clear, justified and defensible planning policy.

1.5 Those involved in writing planning policy, supporting the development of policies and assessing the soundness of planning policies will find the following sections most useful.

1.6 Use Volume 1 to:

- understand existing levels of provision.
- identify spatial inequalities and deficiencies.
- provide the evidence base for Local Plan accessible greenspace (AGS) standards – and clear justification for policy wording (including methodology, and data sources).
- Clarify alignment with national policy and guidance.

1.7 Use Volume 2 (chapters 2 and 3) to:

- develop policy approaches.
- understand best practice and national guidance.
- identify how GI and open space should be embedded across the Local Plan.

2. Those assessing applications (development management officers, elected members, planning inspectors, communities and neighbourhood groups)

Purpose: To assess planning applications and secure appropriate GI and open space provision. Need clear, consistent expectations for development.

1.8 Refer to standards and thresholds in Volume 2 when assessing requirements.

1.9 Use Volume 1 mapping and analysis to:

- understand local provision and deficiencies within the immediate context of a site – to assess adequacy of proposals and support negotiations with between applicants.
- inform decisions on on-site vs off-site provision

1.10 Use Volume 2 guidance to:

- Find proposed standards for accessible greenspace (AGS), play space and food growing + guidance on how to apply them.

3. Those designing and implementing schemes (developers, planning consultants, external partners and funders, communicates and neighbourhood groups)

Purpose: To understand requirements and design policy-compliant development proposals.

1.11 Use Volume 2 to:

- identify applicable standards and policy expectations
- understand when and how contributions will be required

1.12 Use Volume 1 to:

- understand local context around your site (existing provision, deficiencies, GI network)
- inform site design and layout.

Summary

1.13 This study is intended to function as a practical and accessible tool, supporting:

- clear and defensible policy-making.
- consistent and transparent decision-making.
- better integration of GI and open space within development.
- more targeted and effective delivery.

1.14 By structuring the study around different user needs, it aims to ensure that the evidence prepared can be applied effectively in practice.

Table 1.1: Where can I find?

Where can I find information on:	Which Volume
Justification for proposed standards	Vol 2
Where provision is strongest and weakest	Vol 1
Key inequalities across the Borough / gaps in access to open space	Vol 1
Key priorities for investment and delivery	Vol 2
How development should respond to local needs	Vol 2
Delivery mechanisms, information for funding bids and partnership working	Vol 2
Methodology, data sources and analysis	Vol 1

What do we mean by open space and green infrastructure?

1.15 In simple terms, **Open space** refers to places people can use and experience directly for recreation, such as parks, play areas, allotments and other publicly accessible outdoor spaces.

1.16 Accessible greenspace (AGS) is a subset of open space that focuses on the types of open space that people can use for everyday recreation and contact with nature, such as parks and natural greenspaces. Further definition of AGS is provided in Chapter 4 (paragraph 4.36).

1.17 Green infrastructure (GI) is the wider network of natural and semi-natural features across the Borough – including open spaces, but also things like rivers, woodlands, street trees and sustainable drainage. All open space is part of this network, but not all GI is publicly accessible or designed for recreation. See **Chapter 2** for fuller definitions of each.

Headline findings on the state of Bolton’s open space and GI network

A strong overall resource

1.18 Bolton benefits from a large and varied network of open space and GI. As set out in **Chapter 4**, this includes:

- A total of **1,421 hectares of open space**.
- Around **4.6 hectares of open space per 1,000 people** - this includes over 4 hectares of accessible greenspace per 1,000 people.

1.19 The Borough also benefits from:

- extensive moorland, countryside and river corridors;
- a network of parks, country parks and Local Nature Reserves;
- a strong foundation for a multi-functional GI network.

Open space provision: key findings

1.20 The open space assessment (see **Chapter 4** for full details) provides a clear, quantitative picture of provision and accessibility of open space across the Borough. Provision is summarised in **Table 1.1** below.

Table 1.2: Open space provision in Bolton

Typology	Current provision (hectares per 1,000 people)	Key message
Total open space	4.6	

Typology	Current provision (hectares per 1,000 people)	Key message
Total qualifying as “accessible greenspace”	4.16	Exceeds national “best practice” benchmarks overall.
Parks and gardens	0.78	Core spaces for recreation and play.
Semi-natural greenspace	2.99	Significant resource, but uneven distribution.
Amenity greenspace	0.39	Important local provision but inconsistent.
Play provision	0.02	Significantly below national “best practice” benchmarks.
Allotments	0.09	Appears to be generally adequate for meeting local demand, but there are local gaps.

1.21 The analysis shows that Bolton performs strongly overall in quantity terms. However, provision is unevenly distributed and not all spaces are equally accessible or functional. In particular:

- Central and Inner Bolton has significantly lower provision of accessible greenspace (approx. 1.43 ha per 1,000 people)
- Smaller, local spaces (e.g. doorstep greenspace and play) show the greatest shortfalls.

Accessibility and inequality

1.22 The accessibility analysis (see **Chapter 4** for full analysis) highlights a clear spatial pattern:

- Good access to larger strategic spaces (e.g. country parks, moorland)
- More limited access to local greenspace, play areas, and “everyday” spaces within walking distance.

1.23 This results in a mismatch between overall provision and everyday access.

Green infrastructure network

1.24 The GI assessment (see **Chapter 3**) provides a broader, strategic view of how these spaces function as a connected system along with the full range of GI assets.

Key assets

1.25 Bolton's GI network is shaped by a number of major assets, notably:

- The West Pennine Moors – a regionally significant landscape
- Country parks and Local Nature Reserves, including Smithills Country Park, Moses Gate Park / LNR, Seven Acres Park / LNR and Leverhulme Park.
- River corridors, including the Croal, Tonge and Irwell.
- A network of woodlands, reservoirs and heritage landscapes.

1.26 These assets provide biodiversity value, recreation and health benefits, flood management and climate functions, a strong sense of place and a landscape identity. However, they form part of a network that is not yet fully connected.

1.27 Despite this strong baseline, analysis shows that the GI network is:

- fragmented, particularly in urban areas.
- less accessible where need is highest.
- not consistently designed as a joined-up network.

1.28 This limits its ability to support active travel, provide connected habitats, and function as critical infrastructure to support growth.

Key themes and challenges

Nature and biodiversity (Chapter 3, Theme 1)

1.29 Important network of designated sites and habitats. However:

- only 9.1% of SSSI units are in favourable condition
- habitats are fragmented and disconnected
- Key pressures include development, recreational pressure, invasive species and water quality issues.

Health and access (Chapter 3, Theme 2)

1.30 Open space is critical to addressing health inequalities. Local context shows:

- Relatively low life expectancy.
- high levels of obesity.
- below-average physical activity.

1.31 At the same time:

- access to greenspace is uneven
- barriers include concerns over safety, poor quality routes, and lack of local provision.

Placemaking and economic role (Chapter 3, Theme 3)

1.32 GI has a key role in town centre regeneration, the visitor economy and overall place quality. However urban areas (including the town centre) currently have very low levels of urban greening, high levels of hard surfacing and inconsistent public realm quality.

Water environment (Chapter 3, Theme 4)

1.33 All rivers in Bolton currently at 'moderate' ecological status. There are significant issues relating to water quality, flood risk and water availability.

1.34 However, there is a strong opportunity to enhance blue corridors as GI assets, recreational routes and nature-based solutions to climate change.

Climate resilience (Chapter 3, Theme 5)

1.35 GI and open space are critical to carbon reduction, flood management and cooling urban areas. However key challenges in Bolton include:

- low woodland cover (9.7%) relative to national targets.
- increasing risks from heat, drought and wildfires.

Cross-cutting issues

1.36 Across both the open space and GI analysis, several consistent issues emerge:

- Spatial inequality in provision and access.
- Fragmentation of the network.
- Pressure from development and competing land uses.
- Weak integration into planning and design.
- Long-term management and funding challenges.

Key opportunities

1.37 The study identifies clear opportunities to improve provision:

- Targeting investment in areas of greatest need.
- Improving connectivity between existing spaces.
- Embedding GI into new development from the outset.
- Using national mechanisms such as Biodiversity Net Gain (BNG) and Local Nature Recovery Strategies (LNRS) to strengthen the network.
- Strengthening partnership working and delivery.
- Supporting community-led initiatives

Overall conclusion

1.38 Bolton has a strong overall resource of open space and green infrastructure, but with significant inequalities and gaps in how it is distributed and experienced. The key challenge is not overall quantity, but instead accessibility, quality and connectivity.

1.39 There is an opportunity as part of growth coming through the emerging Local Plan to move toward a model where open space and green infrastructure are planned and delivered as a connected, multi-functional network - and as *essential infrastructure* supporting growth, health and climate resilience.

Chapter 2

About this study

What is open space?

2.1 Open space refers to outdoor areas that provide recreation, amenity, movement or contact with nature. It includes parks, play areas, sports pitches, allotments, cemeteries, green corridors and civic squares, as well as some privately owned land that performs an open space function, such as school playing fields. Open space can also include water environments, such as lakes, reservoirs or rivers where there is access to the banks (e.g. on the water through water sports and wild swimming).

2.2 In planning policy terms, open space does not have to be completely undeveloped (play equipment, paths and pavilions clearly still sit within “open space”) but it is land that is fundamentally free from built development and offers public value - whether through physical activity, opportunities to experience nature, community use or by contributing to the character and openness of an area.

2.3 Not all outdoor land qualifies – spaces such as private gardens, highway verges or inaccessible buffer land may contribute to the wider environment but are not typically treated as open space (see methodology in Appendix A for further detail on inclusion and exclusion used for this study). Provision and needs for sports is addressed through a Playing Pitch Strategy, and these spaces have not been considered as open space within this study (other than where they also provide space for other recreation).

2.4 The term 'greenspace' is sometimes used instead of open space. Greenspace incorporates all open space that is mostly natural land cover. Usually this excludes “civic spaces” and some children's play areas.

What is green infrastructure?

2.5 Green infrastructure (GI) refers to the network of natural and semi-natural spaces that connect landscapes, people and places. It includes parks, woodlands, rivers, wetlands, street trees, green roofs and even smaller features like ponds, hedgerows and sustainable drainage systems. These elements are planned, designed and managed in a way that delivers a wide range of environmental, social and economic benefits.

2.6 Blue infrastructure (the water-based elements of the network) is vitally important – for the purposes of this report we will be using ‘GI’ to refer to both green and blue elements.

2.7 Launched in 2024, Natural England’s Green Infrastructure Framework (NEGIF) sets out a clear national vision for GI as a critical part of the built and natural environment [\[See reference 1\]](#). It encourages a shift from thinking of green and blue spaces as single-purpose features – such as just a park, or a drainage ditch – to recognising their ability to deliver multiple functions. For example, river corridors like the River Tonge not only help to manage flood risk but also support biodiversity, provide walking and cycling routes and improve mental wellbeing for local residents.

2.8 By taking a multifunctional approach to planning and design of GI, it can contribute to climate resilience, support healthy lifestyles, enhance nature recovery and underpin sustainable development. There is increasingly a drive to consider GI as essential infrastructure – on an equal footing with transport, energy and digital networks – rather than as an optional or secondary consideration in planning and design.

2.9 The recently published Land Use Framework places greater emphasis than ever before on multifunctionality [\[See reference 2\]](#). Through this national shift in perspective, green infrastructure will become increasingly central to managing future growth pressures through a spatially informed approach and by identifying priority areas for investment.

2.10 While open space focuses on accessible places serving people directly, GI includes a broader range of natural and semi-natural features – such as river corridors, woodlands and SuDS – that may not always be publicly accessible but deliver important environmental functions.

A key distinction for this study is that all open space forms part of the green infrastructure (GI) network, but not all GI is open space.

Why does Bolton need this study?

2.11 This open space and green infrastructure study will help to shape and support the delivery of Bolton Metropolitan Borough Council (BMBC)’s emerging Local Plan, which will guide development up until 2042. With significant population growth and need for new homes to be built, coupled with demand for new industrial and warehousing floorspace, the Borough’s existing green and blue spaces face increasing pressure.

2.12 This study offers a vital opportunity to plan proactively – not just to protect what already exists, but to create a stronger, more connected open space and GI network that delivers for people, place and nature. The study will align with the vision of the recently published Bolton Greenspace Strategy (2026-2041), which aims to improve access, quantity and quality of green and blue infrastructure in the Borough [See reference 3].

Existing evidence base

Local policy context

2.13 Bolton last conducted a review of its open spaces with the 2007 Open Space, Sport and Recreation Study [See reference 4]. Open space provision is primarily secured for residential developments through policies in the currently adopted Core Strategy (2011) and the Infrastructure and Planning Contributions Supplementary Planning Document (SPD) (2016) [See reference 5]. The adopted Core Strategy and subsequent Allocations Plan additionally defined Protected Open Land (POL) policy and designated open sites for protection within the Borough.

2.14 At present, Bolton has very little evidence base related to green infrastructure. Policies within the currently adopted Core Strategy (2011) relate to the provision, protection and improvement of green infrastructure [See reference 6]. However, since 2011 the policy agenda related to GI has moved on considerably – including the passing of the Environment Act in 2021 (which introduced mandatory Biodiversity Net Gain requirements) and the launch of the England-wide Natural England GI Framework in 2023.

Regional policy context

2.15 Certain strategic elements of Bolton's GI network were addressed by the Places for Everyone (PfE) Joint Development Plan (2022-2039), adopted in 2024 [See reference 7]. PfE, a strategic planning document for nine of the Greater Manchester local authorities, superseded several policies of Bolton's Core Strategy, bringing Bolton's overall statutory development plan more in line with current policy agendas. The policies within PfE carry full weight in planning decisions.

2.16 In particular, policies JP-Strat13 (Strategic Green Infrastructure) and JP-G2 (Green Infrastructure Network) establish a strategic approach to protecting, managing, and enhancing Greater Manchester's GI assets and network. PfE identified 'Green Infrastructure Opportunity Areas' across the plan area which

demonstrate particular potential for improvements to the wider green infrastructure network (**Figure 2.1** and **Figure 2.2**). The identified opportunity areas in and around Bolton are:

B. The Croal-Irwell Valley (Bolton, Bury, Manchester and Salford with connections to Blackburn-with-Darwen and Rossendale)

D. The West Pennine Moors (Bolton and Bury with connections to Blackburn-with-Darwen and Chorley)

F. Red Moss and Middle Brook Valley (Bolton)

G. Hulton Park (Bolton)

H. The Cutacre Country Park (Bolton, Salford and Wigan)

Figure 2.1: PfE Green Infrastructure Opportunity Areas

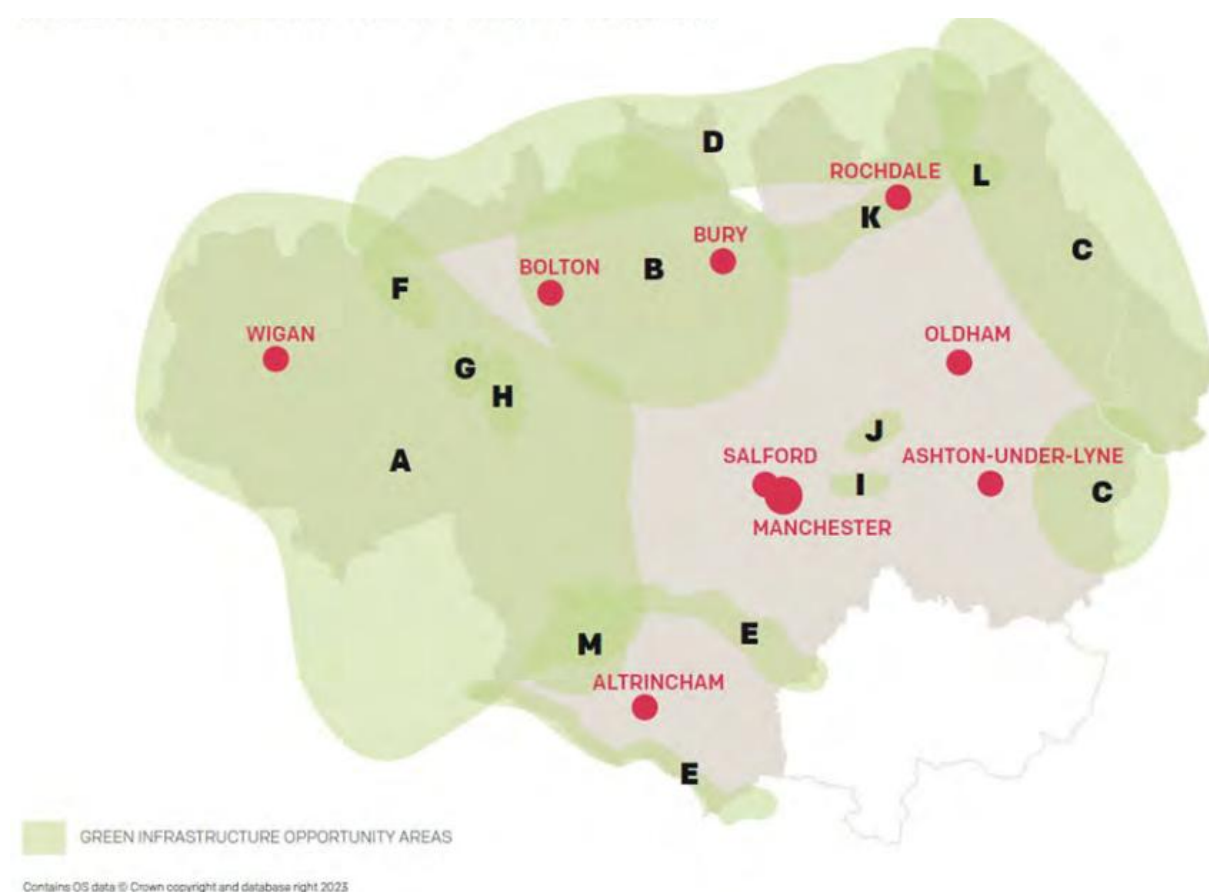
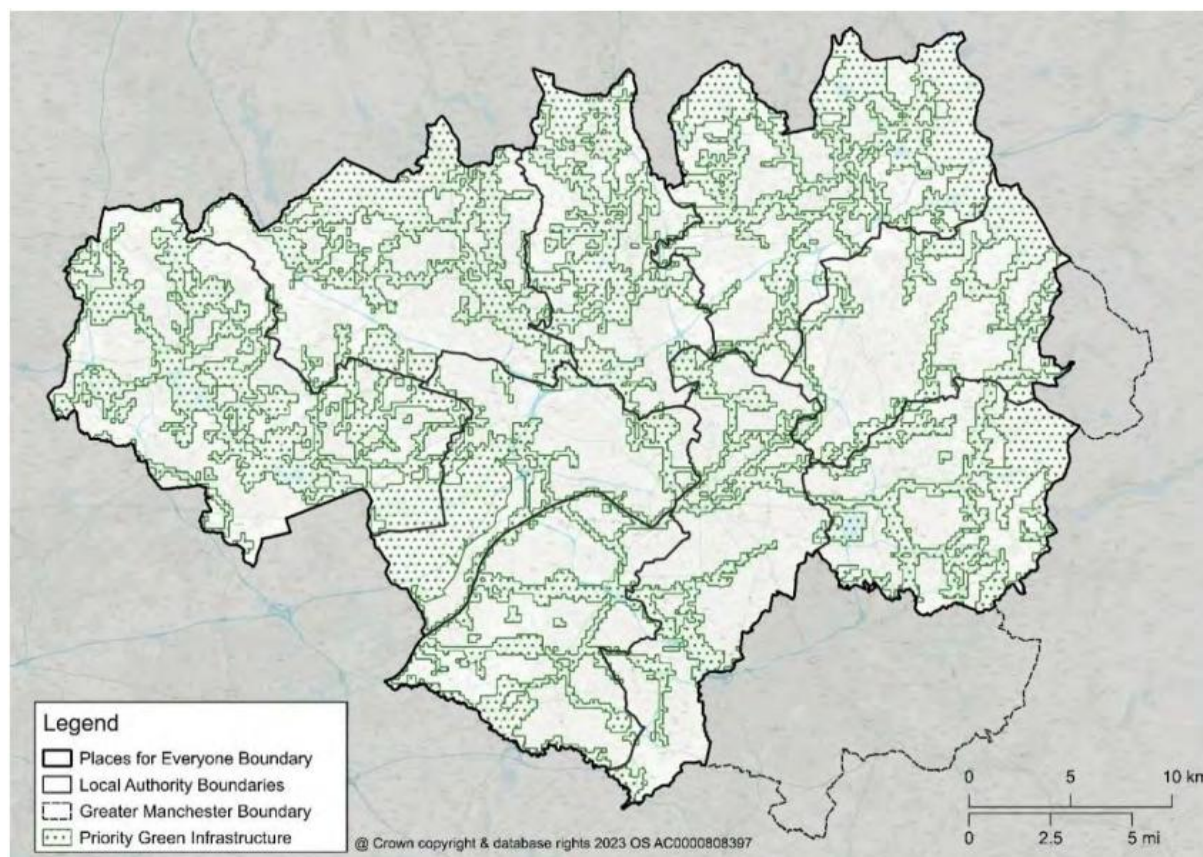


Figure 2.2: PfE Green Infrastructure Network

2.17 Other policies within PfE have relevance for green infrastructure, including:

- JP-G6 (Urban Green Space), which sets out the protection of existing greenspace and encourages the provision of new, high-quality urban green spaces alongside development; and
- JP-C5 (Streets for all), which focuses on the design of streets to support active travel methods (walking, wheeling and cycling) and enhanced greening.

2.18 In the coming years, future Bolton Local Plans will be shaped by the emerging Spatial Development Strategy (SDS), which the Government currently proposes will be prepared for Greater Manchester by the Greater Manchester Combined Authority (GMCA) [See reference 8]. The SDS will guide long-term strategic growth across England and we expect it to include strategic-scale mapping of green infrastructure, identifying key cross-boundary corridors and networks, which Bolton's future Local Plans will need to align with.

Considering open space and GI together

2.19 With this study, Bolton is bringing together its open space and GI planning and seeks to emphasise joined-up, landscape-scale thinking. By integrating the two considerations in this way, Bolton can plan its green spaces as a single, connected network that meets legal requirements while also improving everyday recreation, boosting biodiversity, locking up carbon and reducing pressure on protected habitats. This combined approach avoids fragmented evidence, creates a clearer Local Plan, and ensures that Bolton's green spaces function as long-term, cross-benefit assets that enhance the Borough's environment and quality of life.

2.20 The study will combine the following:

- An assessment of Bolton's identified needs for both open space and GI, based on existing assets, demographic trends and the distinct challenges facing the Borough.
- An assessment of the strengths, weaknesses, threats and opportunities identified within Bolton's GI network, following the process journey set out in the Natural England GI framework.
- A complete open space audit to assess the extent of the current network and existing levels of provision across Bolton. This will map existing assets and help to understand where the greatest opportunities lie to enhance, restore, or expand GI alongside identifying where gaps exist in provision, quality and/or value. It will generate robust evidence to inform policy, investment and delivery.
- Recommendations for robust, new policies in the emerging Local Plan, addressing both GI and open space expectations for new development schemes – including evidence-based quantity, quality and accessibility standards for open space provision.

How has this study been developed?

2.21 The method for developing this study was split into the following tasks:

- Early **engagement with Development Management planners** – to understand practical issues around securing GI and open space requirements on development sites.
- Preparation of a **high-level, mapping-led GI and open space baseline** aligned with Natural England's GI Framework and Planning Practice Guidance on open space.

- Use of GIS analysis tools to **map valued assets, deficits, and multifunctional corridors**.
- Refinement of the baseline through a **focused stakeholder workshop** to capture on-the-ground knowledge (see Appendix D).
- Production of **clear Local Plan policy recommendations** for both open space and GI.
- Production of **clear standards** for open space, grounded in the evidence produced by the open space audit.
- Delivery of a **combined, accessible final report** with mapped outputs and clear guidance for users.

What happens next?

Supporting the Local Plan

2.22 This study will form an important part of the evidence base for Bolton's emerging Local Plan. It will support both policy development and day-to-day planning decisions by identifying both the open space and strategic GI needs of the Borough. The findings will help shape a robust and forward-looking policy framework.

Strong Partnership Working

2.23 Beyond the Local Plan, the study will also provide valuable direction for Bolton's wider infrastructure planning – informing updates to the Infrastructure Delivery Plan (IDP) and helping to prioritise investment in nature-based solutions. However, delivering a high-quality, well-connected GI network will require more than just policy – it will need strong collaboration across BMBC's departments and with a wide range of external partners, including third sector organisations, landowners, developers and local communities.

From Study to Delivery

2.24 This study includes a series of policy recommendations for the incorporation of both open space and GI in the emerging Local Plan, building on the analysis of the open space and GI network. However, it does not at this stage identify specific opportunities, nor a delivery plan of projects. Further work in future – including the

identification of projects, feasibility assessments, costings and community engagement – will be essential to bring identified opportunities to life and ensure that the benefits of GI are delivered on the ground.

Chapter 3

Understanding Bolton's GI and open space network

How to use this chapter

This chapter explains how green infrastructure functions across the Borough, including key assets, issues and opportunities. It should be used to understand the wider network and its role in supporting growth, health and climate resilience.

What does the network look like today?

3.1 Bolton's green infrastructure (GI) and open space network is shaped by its varied landscape, spanning from the **upland moorlands of the West Pennine Moors** in the north to the **river valleys and urban neighbourhoods in the south**. This geography gives the Borough a distinctive mix of large countryside assets, ecologically important sites and local green spaces that together form the green and blue framework for future growth.

3.2 At a strategic level, Bolton benefits from several significant green assets. The **West Pennine Moors**, including extensive open access land and nationally designated habitats, define the Borough's upland character and provide important functions for nature, recreation and carbon storage. **Country parks and Local Nature Reserves** such as Smithills, Moses Gate, Leverhulme and Borsdane Wood offer accessible, well-used spaces that support biodiversity, physical activity and everyday contact with nature. **River corridors**, most notably the Croal, Tonge and Irwell, form important linear green and blue routes through both rural and urban areas, linking habitats while also supporting walking, cycling and regeneration opportunities.

3.3 Several of Bolton's green assets also have significant value for biodiversity and are protected as nationally designated **Sites of Special Scientific Interest (SSSI)**: the West Pennine Moors, Gale Clough and Shooterslee Wood, Red Moss, Tonge River Section and Nob End.

3.4 Open space plays a particularly **important social role** in Bolton. In many neighbourhoods, publicly accessible greenspaces provide essential places for recreation, play and wellbeing, especially where access to private gardens is more limited. Parks, amenity greenspaces and local routes contribute to physical and

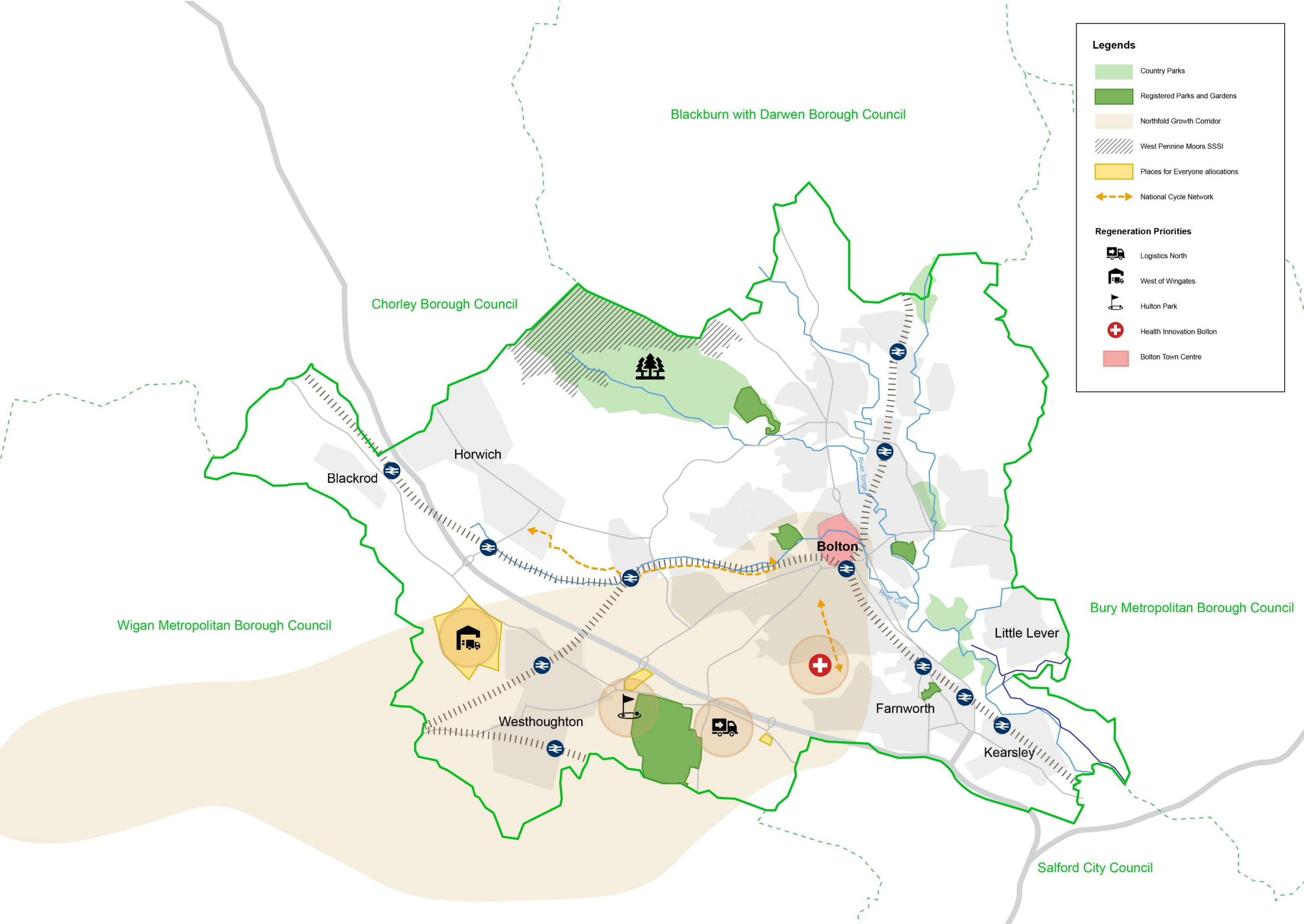
mental health, helping to **address identified health inequalities across the Borough**.

3.5 The baseline evidence also highlights key challenges. **Access to good-quality greenspace** is uneven, with gaps in provision in and around Bolton town centre, Farnworth and some inner urban areas. Parts of the GI network are **fragmented**, limiting connectivity for wildlife and for people moving between spaces. Many **designated nature sites are in unfavourable condition**, with pressures from development, recreational use, invasive species, water quality issues and climate change. **Demand for development land** also poses a threat to green infrastructure assets, particularly open space, throughout the Borough.

3.6 The pressures of a changing climate are increasingly shaping Bolton's GI network. **Flood risk** is concentrated along river corridors, **surface water flooding** affects urban areas, and **longer dry periods** are placing strain on reservoirs and water-dependent habitats. Extensive areas of hard surfaces in town and industrial centres contribute to **urban heat risk**, underlining the importance of trees, green spaces and nature-based solutions.

3.7 Overall, Bolton's GI and open space network is a **major asset** but also a **critical piece of infrastructure under pressure**. The opportunity for the Borough lies in strengthening connections between existing assets, improving access and quality where need is greatest, and planning GI as a coordinated network that supports health, nature, climate resilience and placemaking over the long term.

Figure 3.1: Illustrative context map for Bolton's GI and open space network



How is the network performing?

3.8 The following sections of Chapter 3 provide a summary of how Bolton's GI and open space network is currently performing. To do that, five 'themes' have been used to structure the analysis, drawing on the five GI Benefit Principles set out in the Natural England GI Framework [\[See reference 9\]](#):

- Nature-rich Bolton
- Active and healthy Bolton
- Thriving and prosperous Bolton
- Understanding and managing Bolton's water environment
- Resilient and climate positive Bolton

3.9 Each section begins with a brief overview of national and local policy, before summarising existing performance within the Borough in each case – driven by a combination of policy review, mapped data analysis and input from key stakeholders.

3.10 Note that there are some overlaps between the themes, such as that between the nature-rich theme and water environment. Where relevant, cross-references are made in the sections below.

Theme 1: Nature-rich Bolton

Why are GI and open space important for achieving a nature-rich Bolton?

3.11 Bolton's GI and open space network plays a vital role in creating bigger, better and more joined up spaces for nature across the Borough. It supports the preservation and enhancement of the Borough's natural beauty, habitats, wildlife and geological and soil features. It also plays a pivotal role improving connectivity. Well planned GI can create effective ecological corridors and "stepping stones" enabling wildlife to shelter, forage and move through both the Borough's agricultural landscape and its urban centres.

3.12 Biodiversity underpins many of the benefits of GI and is essential for the delivery of an array of ecosystem services important to Bolton, including pollination, climate change adaptation, and natural flood management. Time spent in nature rich environments has also been proven to have social benefits, including improving physical and mental health and children's educational attainment [\[See reference 10\]](#) [\[See reference 11\]](#).

3.13 Finally, nature-rich GI is an important tool for strengthening everyday connections between people and the natural environment. GI provides opportunities for people to directly learn about and connect with nature. These opportunities can inspire a sense of stewardship of nature, which in turn can deliver wider environmental benefits across the Borough.

How does international legislation affect biodiversity in the Borough?

3.14 The European Union (EU) Habitats Directive established the Natura 2000 network, a system of protected sites across Europe aimed at conserving Europe's most valuable and threatened species and habitats. The Directive forms the cornerstone of nature conservation policy in the EU, was transposed into UK law, and continues to apply through national legislation.

What does national legislation and policy say?

3.15 National legislation now places stronger and more explicit duties on public authorities than previously to demonstrate meaningful action for biodiversity, raising

expectations around how they plan for, deliver and evidence GI outcomes for biodiversity.

3.16 The **NERC Act 2006** first introduced the Biodiversity Duty, requiring all public authorities in England to consider what action they can reasonably take for the conservation of biodiversity [See reference 12]. The **Environment Act 2021** strengthened that Biodiversity Duty. Public authorities must now consider what they can do to both conserve and enhance biodiversity. The Act also introduced a new system of Local Nature Recovery Strategies (LNRS) covering all of England and a mandatory requirement for Biodiversity Net Gain (BNG) on development sites [See reference 13].

3.17 The government's subsequent **Environmental Improvement Plan 2023** [See reference 14] (later revised in 2025) [See reference 15] took forward the delivery of the Environment Act 2021, setting out the legally binding targets. The **Levelling Up and Regeneration Act 2023** places a duty on all local planning authorities to “take account of” their relevant LNRS [See reference 16]. Bolton will need to take account of Areas of Particular Importance (APIBs) and Areas that Could Become of particular importance (ACBIs) mapped in the **Greater Manchester LNRS** (published in September 2025) when making planning decisions.

3.18 The **Conservation of Habitats and Species Regulations 2017** implement the European Habitats Directive in the UK [See reference 17]. These regulations are designed to protect the most important natural habitats and species across the UK, ensuring that any plans or projects that could impact these areas undergo thorough assessments.

3.19 England's **National Planning Policy Framework (NPPF)** requires planning decisions to protect and enhance the natural environment, including boosting biodiversity, improving air and water quality and addressing climate change – all while delivering housing and growth. Crucially, plans should also explicitly secure net gains for biodiversity [See reference 18].

3.20 Most recently, the **Planning and Infrastructure Act** received Royal Assent in December 2025 [See reference 19]. The Act introduces a more strategic approach to nature recovery, through:

- Introducing a new Nature Restoration Fund (NRF) designed to unlock and accelerate development; and
- Allowing Natural England (or another designated delivery body) to bring forward Environmental Delivery Plans (EDPs) to address the impact that development has on a protected site or species. A developer would then no longer be required to undertake their own assessments or project-specific interventions for

issues addressed by the EDP. 16 ‘front runner’ EDPs have been identified by the government, with an initial specific focus on nutrient pollution - however none of these ‘front runner’ nutrient pollution catchments impact Bolton or Greater Manchester more widely. At the time of publication, the government has not yet committed to any non-nutrient EDPs, until the first set has been tested and a statement made to Parliament.

What does local policy say?

3.21 BMBC’s recently published **Greenspace Strategy (2026-2041)** sets out a vision that emphasises the importance of green infrastructure for local biodiversity, amongst other co-benefits [\[See reference 20\]](#). The following objectives promote nature and biodiversity:

- **Biodiversity and Offsetting:** Seeks to develop off-site Council-owned BNG sites and incorporate the “Urban Greening Factor” into decision-taking.
- **Local Nature Recovery:** Seeks to align with the LNRS to support achieving nature recovery targets.

3.22 BMBC’s adopted **Core Strategy (2011-2026)** [\[See reference 21\]](#) includes several policies (CG1, CG3 and IPC1) that relate to biodiversity and nature recovery in support of Strategic Objective 12: “to protect and enhance Bolton’s biodiversity”.

3.23 However, Greater Manchester’s **Places for Everyone (PfE) Joint Development Plan (2022-2039)** [\[See reference 22\]](#), adopted in 2024, superseded parts of policies CG1 and CG3 of the Bolton Core Strategy. PfE includes overarching biodiversity policies in addition to policies promoting nature conservation and recovery:

- **Policy JP-G1 (Landscape Character)** states that development should respond to key landscape characteristics, including semi-natural habitats and woodland cover.
- **Policies JP-G3 (River Valleys and Waterways), JP-G4 (Lowland Wetlands and Mosslands), JP-G5 (Uplands) and JP-G7 (Trees and Woodland)** emphasise the protection and enhancement of habitats within the primary landscape character types and for trees and woodland within GM.
- **Policy JP-G8 (A Net Enhancement of Biodiversity and Geodiversity)** seeks a 10% net enhancement of biodiversity throughout GM, including a focus on priority habitats and species and an avoidance-first mitigation hierarchy for biodiversity protection.

3.24 The **Greater Manchester LNRS**, published in 2025, sets out an assessment of biodiversity and nature within GM and elaborates a detailed delivery framework for nature recovery throughout the Combined Authority [\[See reference 23\]](#). Key elements of this LNRS within Bolton are shown on **Figure 3.3**.

Overview of nature conservation sites in Bolton

3.25 Bolton hosts a diverse range of sites designated for their biodiversity value. These are shown on **Figure 3.2**.

Nationally designated sites

3.26 There are no internationally designated sites within the Borough – this includes Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites.

3.27 However, there are a number of nationally designated sites. Sites of Special Scientific Interest (SSSI) are designated by the Wildlife and Countryside Act (1981), as amended [\[See reference 24\]](#). In total, almost 4% of Bolton is designated as a SSSI and includes the following (locations shown on **Figure 3.2**):

- **The West Pennine Moors SSSI** – by far the largest expanse at approximately 7,600ha, designated in 2016 for a number of habitats (including bogs, heathlands, grassland, and fens). It supports priority species, including the black-headed gull, grey heron, Mediterranean gull, and assemblages of breeding birds [\[See reference 25\]](#).
- **The Red Moss SSSI** – approximately 47ha, designated in 1995 for its lowland raised bog habitat [\[See reference 26\]](#).
- **The Gale Clough and Shooterslee Wood SSSI** – approximately 9ha, designated in 1984 for its upland oakwood and wet woodland habitats [\[See reference 27\]](#).
- **The Tonge River Section SSSI** – approximately 1ha, designated in 1987 because its rock layers reveal how sediments were deposited and what ancient landscape and environments of the area were like [\[See reference 28\]](#).
- **The Nob End SSSI** – approximately 9ha, designated in 1988 for its grassland habitats [\[See reference 29\]](#).

3.28 At the time of publication, only 9.1% of SSSI units within the Borough are in “favourable” condition – well below the national average of 35% [\[See reference 30\]](#). **Table 3.1** provides an overview of the condition of SSSIs in the Borough.

Table 3.1: Current condition of SSSIs in Bolton

Condition Status	Area (ha)	% of SSSI in the Borough
Favourable	50	9.1
Unfavourable recovering	16	2.8
Unfavourable no change	392	71.5
Unfavourable declining	90	16.4

3.29 There are no designated National Nature Reserves in the Borough.

Locally designated sites

3.30 Locally designated sites such as Local Nature Reserves (LNR) and Sites of Biological Importance (SBI) act as vital stepping-stones and buffer areas that support the wider ecological network, strengthening and connecting nationally and internationally designated sites, which carry stronger legal protection.

3.31 In total, 322 hectares of Bolton is designated as a Local Nature Reserve (LNR) – with locations shown on **Figure 3.2**. The Natural England Green Infrastructure Framework (NEGIF) includes a recommendation for 1 ha of LNR per 1,000 population in urban and urban fringe areas **[See reference 31]**. The Borough’s mid-2024 population estimate was approximately 310,000, generating a recommended area of 310 hectares **[See reference 32]**. Using these figures, the Borough currently exceeds this recommendation by 4% - with 1.04 ha of LNR per 1,000 people.

3.32 In addition, BMBC contains a number of SBIs **[See reference 33]**. The SBIs form part of the Core Local Nature Sites mapped by the Greater Manchester LNRS **[See reference 34]**. The LNRS sets a goal to have 50% of Greater Manchester’s SBIs in active management for nature conservation and/or species by 2035. In support of that aim, Bolton Council and the GMCA LNRS team have recently undertaken an assessment of Bolton’s SBIs (which include several LNRs) to establish an accurate baseline of each site’s status.

Other habitats

3.33 Irreplaceable habitats are those habitats which take a significant time to restore, recreate or replace once they are destroyed, as defined in the NPPF **[See reference 35]**. Bolton’s irreplaceable habitats include areas of ancient woodland (85 hectares in total), as well as ancient and veteran trees, blanket bog and lowland fens.

Existing partnerships

3.34 A number of partnerships exist which focus on bolstering nature recovery networks in and around Bolton and are an important foundation for efforts to promote biodiversity. Primary delivery partners include the Lancashire Wildlife Trust, City of Trees and United Utilities. Partnerships of note include:

- The **West Pennines Landscape Recovery Scheme** (also known as the More Nature Partnership) is a partnership between United Utilities and the Lancashire Wildlife Trust which works across communities, farm tenants and landowners to restore the peatlands across the West Pennine Moors [\[See reference 36\]](#).
- The **Great Manchester Wetlands Partnership** aims to restore habitats within the GM Wetlands boundary, an area spanning nearly 48,000 hectares and including the watershed between the Mersey and River Douglas catchments which cross into Bolton [\[See reference 37\]](#). The partnership, formed of several local authorities, universities, community groups and the Wildlife Trust, was formed in 2011 and has carried out restoration, access, and species reintroduction projects across the GM Wetlands.
- The **North West Rare Plant Initiative (NWRPI)** is a volunteer-based initiative which targets the survey and reintroduction of threatened and endangered plant species across Merseyside, Lancashire, Greater Manchester, Cheshire and South Cumbria [\[See reference 38\]](#).
- The emerging **Bolton Invasive Non-Native Species (INNS) working group** will be able to build on previous partnerships and volunteer efforts to eradicate harmful plants. This includes work by the Bradshaw Brook Flying Fishing Club (BBFFC), Bolton Green Umbrella and Groundwork Greater Manchester [\[See reference 39\]](#).

What are the challenges and pressures on biodiversity in the Borough?

Habitat fragmentation, loss and impact of development

3.35 If not carefully managed, habitat loss and the associated impacts of habitat fragmentation and degradation are a major threat from development, intensive agriculture and recreational pressure. These impacts on wildlife are compounded by climate change (see **Theme 5**).

3.36 Like the majority of Greater Manchester, Bolton's habitat network has become isolated and fragmented, primarily by development [\[See reference 40\]](#). According to the Greater Manchester Local Nature Recovery Strategy (LNRS), much of the Borough's remaining areas of particular importance for biodiversity (such as grasslands, lowland meadows, bogs and heathland) now exist in isolated patches, limiting ecological connectivity and species movement [\[See reference 41\]](#) [\[See reference 42\]](#).

3.37 Habitat loss throughout Greater Manchester is a significant concern, with only 11% of the combined authority protected for nature and net gains in LWS land designations stagnating since approximately 2012 [\[See reference 43\]](#).

Ecological status of blue corridors

3.38 Bolton has an extensive water environment across three separate catchments, which is discussed in detail within **Theme 4 (Understanding and Managing Bolton's water environment)**.

3.39 In summary, data from the Water Framework Directive (WFD) indicates a 'moderate' assessment of water quality within Bolton's water bodies, with phosphate pollution affecting the Croal, Douglas and other bodies.

3.40 Within the Croal Irwell operational catchment, which covers most of the Borough, all water bodies are heavily modified, with the exception of one artificial lake [\[See reference 44\]](#).

3.41 Pressure on water resources (as detailed under **Theme 4**) may also have negative impacts on the Borough's sensitive habitats.

Air pollution impacts on sensitive habitats

3.42 Poor air quality due to traffic emissions and high levels of ammonia from agriculture can lead to increased levels of atmospheric nitrogen. This has been found to have a significant impact on sensitive habitats such as heathland, woodland and wetlands [\[See reference 45\]](#). This includes impacts on the lowland grassland and fen habitats at West Pennine Moors SSSI, where it is possible that atmospheric nitrogen from both agriculture and transport may be a cause of damaging nutrient enrichment [\[See reference 46\]](#).

Balancing public access and recreation with wildlife and habitat protection

3.43 High levels of recreation can harm sensitive habitats and species. Recreational disturbance is cited as a pressure on the West Pennine Moors SSSI (high-risk) and the Gale Clough and Shooterslee Wood SSSI (medium-risk). Recreational pressure is cited as a contributing factor to the unfavourable condition of upland bogs and upland fens within the West Pennine Moors SSSI [\[See reference 47\]](#).

INNS outcompeting native flora and fauna

3.44 According to the GB Non-Native Species Secretariat, Invasive Non-Native Species are among the top drivers of biodiversity loss in freshwater and terrestrial systems nationally [\[See reference 48\]](#). Their control is particularly challenging in fragmented or linear habitats – such as those in Bolton – where coordination across multiple landowners is needed to prevent further spread and ecosystem degradation.

3.45 INNS are a key ecological pressure in Bolton, threatening native biodiversity by outcompeting local flora and fauna. INNS are identified as a high-risk pressure on the West Pennine Moors SSSI and the Gale Clough and Shooterslee Wood SSSI. [\[See reference 49\]](#) [\[See reference 50\]](#). The Greenspace Strategy identifies Japanese Knotweed, Giant Hogweed and Himalayan Balsam as the most harmful species within the Borough and sets out the intent to form an INNS working group to develop a long-term control strategy [\[See reference 51\]](#).

Theme 1 Summary

Key challenges

- **Habitat fragmentation and loss** from development limits species movement and reduces ecological resilience.
- **Ecological condition** of waterbodies throughout the Borough, where current status is causing harm to sensitive species and degradation of important riverine habitats.
- **Recreational pressure** on sensitive habitats and species as population expands - particularly at the West Pennine Moors SSSI.

- **Water availability and abstraction** is a key concern for Bolton, with the potential to affect the hydrological conditions of sites of importance for biodiversity within the Borough.
- **Air pollution** with associated potential impacts upon sensitive habitats including West Pennine Moors.
- **Invasive non-native species** including Japanese Knotweed, Giant Hogweed and Himalayan Balsam are degrading habitats and outcompeting native wildlife.

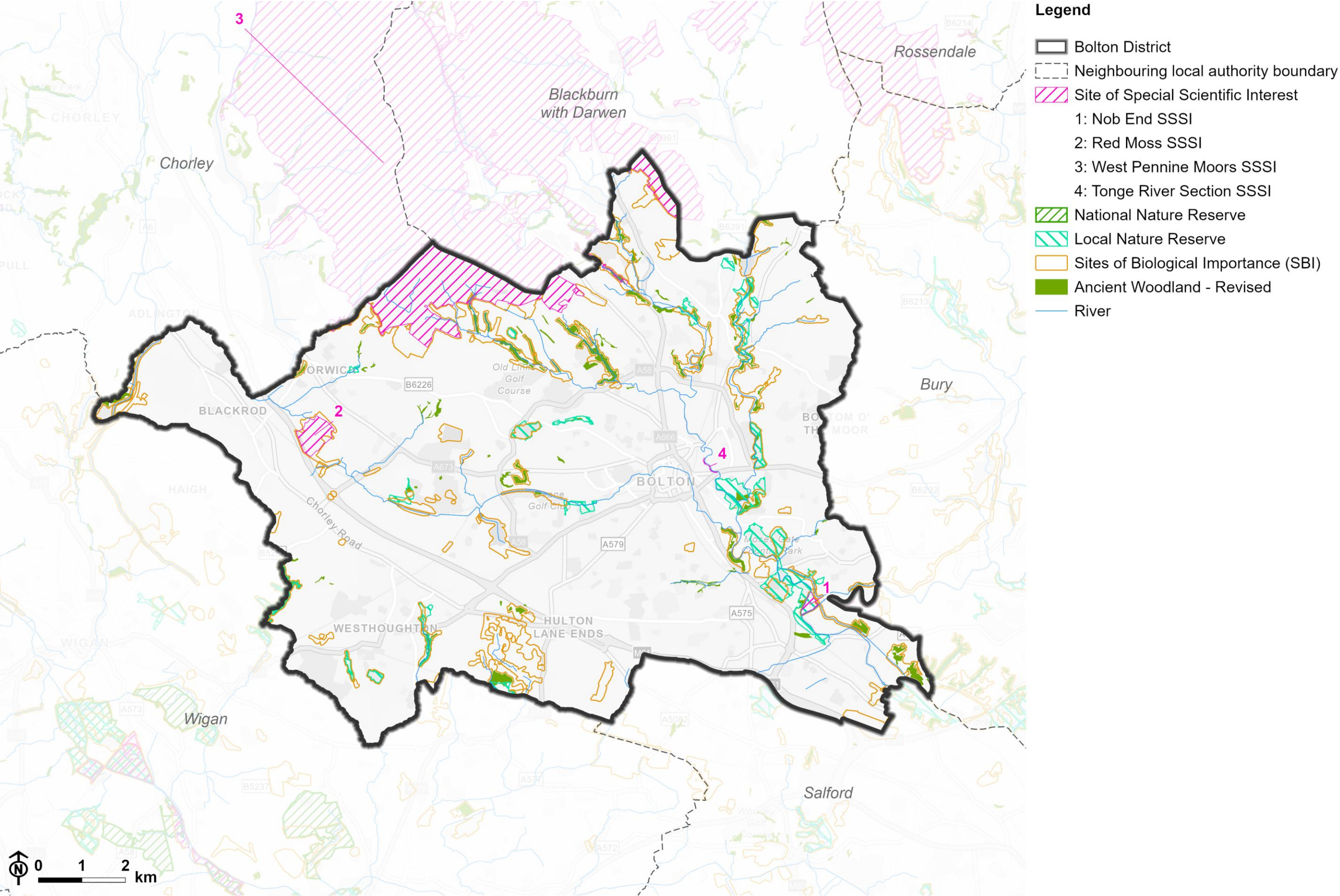
Emerging opportunities

- **Policy tools** like nutrient neutrality, BNG and the LNRS can help secure long-term ecological gains.
- **Partnerships and community action** in Bolton and across Greater Manchester reflect a willingness to fund and deliver meaningful nature recovery projects.
- **Developing habitat connectivity** along networks, including establishing linkages with active travel routes.

Implications for open space provision

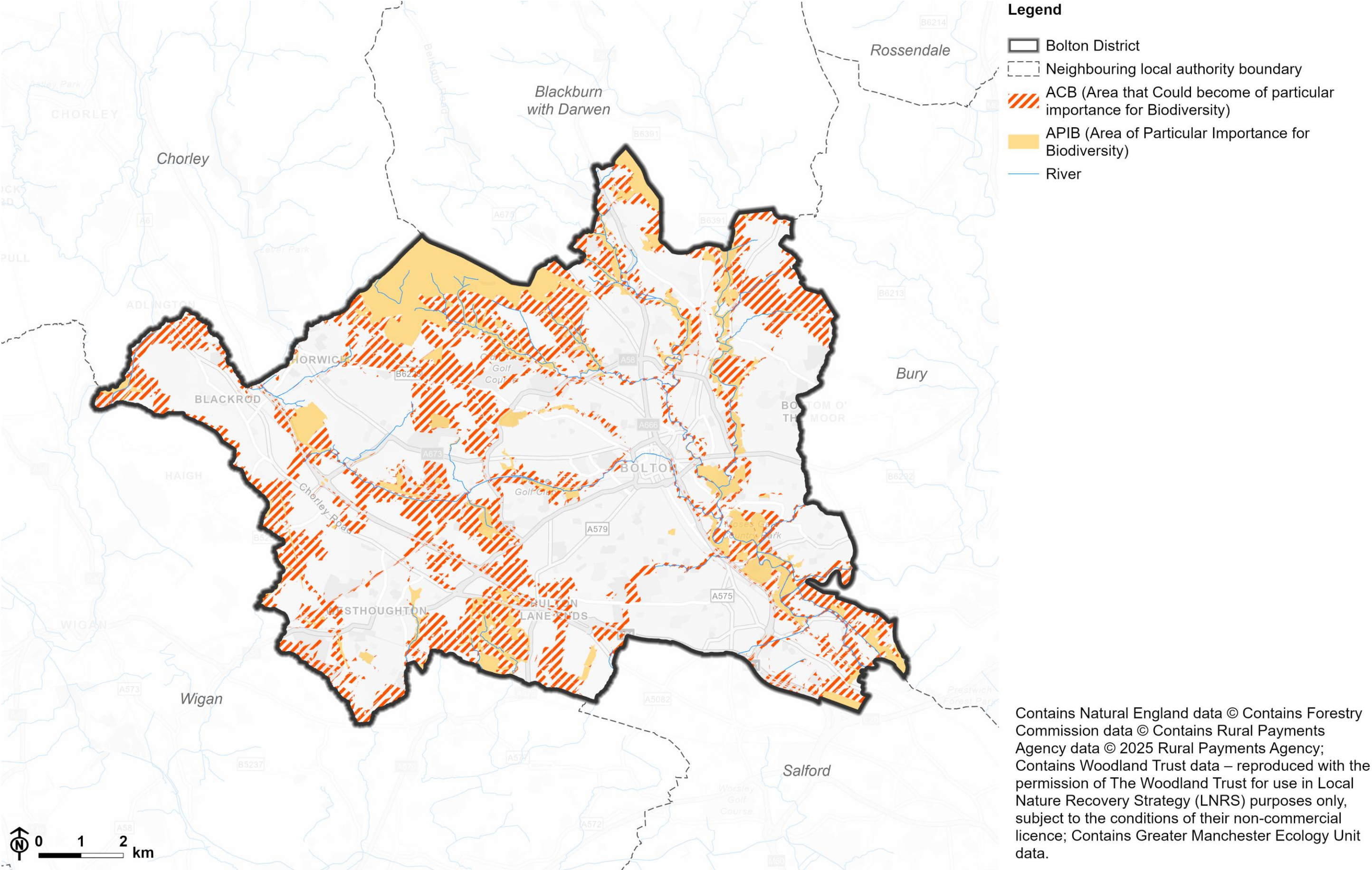
- Open spaces can be designed and managed to support wildlife and provide diverse habitats. Creation of new open spaces should, where possible join up areas of high importance for nature conservation to provide corridors throughout Bolton.
- Accessible open spaces that are also designated for their ecological value (such as the West Pennine Moors SSSI) will need careful management and design to reduce recreational pressure on sensitive habitats, whilst ensuring residents in Bolton retain access to nature and the local landscape.

Figure 3.2: Key biodiversity sites and habitats in Bolton



Created by LUC - 16544_000_BaselineFigures/002_r6_BaselineFig2.1and2.2_A3L 11/06/2026
Contains data provided by Bolton Council © Natural England © Greater Manchester Ecology Unit (GMEU). Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS © OpenStreetMap contributors, and GIS User Community. Contains Ordnance Survey data © Crown copyright and database right 2026 AC0000850551.

Figure 3.3: Bolton's Local Nature Recovery Network



Created by LUC - 16544_000_BaselineFigures/002_r6_BaselineFig2.1and2.2_A3L 11/06/2026

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS © OpenStreetMap contributors, and GIS User Community. Contains Ordnance Survey data © Crown copyright and database right 2026 AC0000850551.

Theme 2: Active and healthy Bolton

Why are GI and open space important for active and healthy places in the Borough?

3.46 Health is not merely the absence of disease but a state of physical, mental and social well-being. GI and open space both play a vital role in supporting this by creating safe, nature-rich spaces for exercise, social interaction, play and rest – while also helping to mitigate environmental health risks such as flooding, air pollution and extreme heat [\[See reference 52\]](#).

3.47 Natural England's Green Infrastructure Framework identifies "active and healthy places" as a core benefit of GI. Well-designed GI encourages physical activity, fosters connections with nature and supports stronger, more cohesive communities – all of which contribute to improved physical and mental health, reduced health inequalities and better quality of life.

3.48 Public Health England categorises the health benefits of greenspace into four key areas:

- promoting healthy behaviours;
- strengthening social ties and belonging;
- supporting learning and skills – particularly for young people; and
- reducing exposure to environmental harms such as poor air quality and flooding [\[See reference 53\]](#).

3.49 In its guide for *Thriving With Nature*, the Mental Health Foundation identify the crucial linkages between nature and wellbeing and the potential for green space to positively impact mental health outcomes [\[See reference 54\]](#).

3.50 There is extensive evidence that regular activity in natural spaces helps prevent long-term health conditions such as cardiovascular disease, diabetes and some cancers. Increasing access to GI and an open space network is recognised across the health sector as a way to support long-term independence and wellbeing, with outdoor activity increasingly used as a positive complement or alternative to medical interventions. While less rigorous than traditional sporting, activities such as gardening and food growing still deliver significant health and wellbeing benefits.

What does national legislation and policy say?

3.51 In recent years, the value of GI and connections to the natural environment for people (as well as biodiversity) has risen to the forefront of the UK's political agenda. The government's **25-year Environment Plan** looks to connect people with the environment to improve health and wellbeing. This includes opportunities to improve health and wellbeing by using green spaces, encouraging children to be close to nature and greening towns and cities.

3.52 Chapter 8 of England's **National Planning Policy Framework** states that planning policies and decisions should aim to achieve "healthy, inclusive and safe places which enable and support healthy lifestyles", especially where this would address identified local health and well-being needs. The NPPF goes on to emphasise the importance of access to a high-quality open space network with communities, and paragraph 104 safeguards existing open spaces from development with limited exceptions. Likewise, the **Planning Practice Guidance (PPG)** asserts that open space can provide benefits for both health and nature and should be considered in all new development proposals [\[See reference 55\]](#).

3.53 Current **Planning Practice Guidance (PPG)** recognises that open space includes all land of public value (such as parks, sports pitches, green corridors and informal spaces). It requires local planning authorities to base policies and decisions on robust, up-to-date assessments of need and opportunities for open space, sport and recreation, and to use this evidence to secure appropriate on-site provision or contributions from development. It notes that existing open space should only be lost where it is demonstrably surplus or replaced with equivalent or better provision in a suitable location. [\[See reference 56\]](#)

3.54 Natural England's **Green Infrastructure Framework** (launched in early 2023) further highlights the importance of GI and natural spaces for health and wellbeing, local communities and inclusive spaces. The Framework provides guidance to help local planning authorities and developers to meet GI requirements through the planning system and outside it – including on setting 'Headline GI standards'. The Accessible Greenspace Standard includes a recommendation for "everyone to have access to and benefit from good quality green and blue spaces within 15 minutes' walk from home".

What does local policy say?

3.55 BMBC's recently published **Greenspace Strategy (2026-2041)** sets out a vision that emphasises the importance of green infrastructure for health and wellbeing,

amongst other co-benefits [\[See reference 57\]](#). The following objectives promote access to green space:

- **Communities:** Seeks to engage communities in the provision and maintenance of green spaces, including parks and allotments.
- **Health and Wellbeing:** Seeks to leverage the relationship between green space and positive health outcomes, considering measures such as social prescribing.

3.56 BMBC's adopted **Core Strategy (2011-2026)** includes policies related to healthy and active places to help achieve Strategic Objective 1, which emphasises maximising access to sporting recreation facilities and increasing opportunities for walking and cycling [\[See reference 58\]](#):

- **Strategic Policy H1 (Healthy Bolton)** aims to secure development contributions which meet the health needs of the community, such as access to physical recreation activities.
- **Strategic Policy CG1 (Cleaner and Greener Bolton)** permits some development on existing informal green spaces, provided that remaining green spaces are improved and the development contributes to the Borough's housing objectives.
- **Policy IPC1 (Infrastructure and planning contributions)** requires developments to mitigate impact through a number of contributions, including open space provision.

3.57 Greater Manchester's **Places for Everyone Joint Development Plan (2022-2039)** [\[See reference 59\]](#), adopted in 2024, superseded policy H1 of the Bolton Core Strategy. PfE includes overarching health goals for GMCA in addition to policies promoting and the provision of green space.

- **Policy JP-P6 (Health)** requires new development to support healthy lifestyles by making physical activity the easy choice for users.
- **Policy JP-G6 (Urban Green Space)** requires developments to provide appropriate, accessible and multi-functional green spaces and to positively respond to existing nearby green spaces.

3.58 Greater Manchester **Moving in Action (2021-2031)** outlines a vision for improving activity levels in GM through a combination of "softer measures" such as advocacy and cultural change and tangible interventions such as increasing access and creating more active places [\[See reference 60\]](#).

3.59 Bolton's Active Lives Strategy (2023-2028) aligns with GM Moving and details the delivery of the strategy within Bolton. [\[See reference 61\]](#).

3.60 The **Greater Manchester Transport Strategy 2050 and Delivery Plan (2027-2037)** set out a vision and local transport plan for the Combined Authority, primarily delivered through the Bee Network [\[See reference 62\]](#). Anticipated to be formally published in late 2026, the Transport Strategy consultation draft identifies growth areas and 'Right Mix' targets for active travel methods.

What are the assets, challenges and pressures in the Borough?

3.61 Understanding the social and environmental context in Bolton helps to build a picture of the localised open space and GI needs in the Borough and any key functions which should be prioritised.

Physical and mental health

3.62 According to Natural England's nationwide *People and Nature Survey* (April 2024-March 2025), 1 in 4 adults had not visited any green space in the preceding 14 days [\[See reference 63\]](#). 30% of adults do not live within a 15-minute walk of a green space, highlighting the urgent need for equitable access to high-quality GI and green space across all communities.

3.63 93% of children surveyed in the Children's People and Nature survey reported a positive relationship between being in nature and happiness [\[See reference 64\]](#). Research indicates that exposure to certain natural environments, including woodlands and green spaces, is associated with higher cognitive development and lower mental health risk in adolescents [\[See reference 65\]](#).

3.64 Overall, the status of health in Bolton is worse than the national picture, and significant inequalities and wellbeing challenges are faced across parts of the Borough.

3.65 The Bolton Joint Strategic Needs Assessment (JSNA) for 2023 sets out that health outcomes are significantly worse in the Borough than national benchmarks – life expectancies for both women and men are approximately 2 years lower than the national average. Life expectancy varies widely across the Borough's different neighbourhoods, with gaps as high as 11.9 years for women and 14.9 years for men. [\[See reference 66\]](#)

3.66 Data from 2022-2023 collected by the Department of Health and Social Care concerning adult health and wellbeing indicates that while adults in Bolton generally

self-rate as being happier than England on average, more people than the national average (over 25%) report experiencing high levels of anxiety [See reference 67].

3.67 According to the Department of Health & Social Care local authority health profiles, childhood obesity in Bolton is improving and is now broadly in line with national trends. Around 23% of children aged 10-11 are classified as obese [See reference 68]. Adult excess weight affects around 70% of the population – several points higher than the national picture at 65%.

3.68 Physical activity among children in Bolton is slightly higher than the England and Greater Manchester average, with 5 of 10 children defined as “physically active” [See reference 69]. Most adults in the Borough are physically active (61%), but rates are significantly below the national average of 67% [See reference 70]. However, active levels of daily walking and cycling are less common, likely as a result of significant car-dependency in the Borough. In Bolton:

- Less than 1% of people cycle for travel at least 3 days per week (below the national average of 2.3%).
- 12% walk for travel at least 3 days per week (several points below the national average of 15.1%) [See reference 71].

Demographic profile

3.69 Bolton’s current population is on the whole younger than the rest of the country, with lower proportions of those aged 55+ than the national average [See reference 72]. However, these figures are projected to shift over the next 15 years along with broader demographic trends, with the proportion of residents over 65 set to increase to 20%.

3.70 This significant anticipated demographic change means that the GI and open space network within Bolton will need to be designed to meet the needs of an older population – and with a view to designing a network that retains and attracts younger populations in order to maintain demographic balance. There is also significant spatial variation across Bolton, with urban communities trending younger than those of the rural parts of the Borough.

3.71 During the 2021 Census, 72% of people in Bolton identified their ethnic group within the ‘white’ category, indicating a more diverse population than England as a whole - which self-identified as 81% ‘white’ [See reference 73]. The largest ethnic minority groups within Bolton are of Asian Pakistani (9.4%) and Asian Indian (8.9%) descent. The largest ethnic minority communities are within Rumworth, Great Lever, Halliwell and Crompton wards.

Social deprivation in Bolton

3.72 England's 2025 Index of Multiple Deprivation (IMD) shows that Bolton is one of the 15% most deprived local authorities in the country overall [\[See reference 74\]](#). Areas of high deprivation are concentrated around the Borough's urban centres, particularly Bolton town and Farnworth, with neighbourhoods up to the 99th percentile in Bolton town centre.

3.73 IMD data is considered as part of the 'combined open space needs index' referenced below and illustrated in **Figure 3.6** and **Figure 3.7**.

Access to Greenspace

3.74 Bolton is served by a diverse range of accessible greenspaces within its boundary and in the vicinity, some of which are shown in **Figure 3.4**. Key features include:

- The West Pennine Moors CRoW open access area (including the West Pennine Moors SSSI) to the north of the Borough.
- Moses Gate Local Nature Reserve and Country Park in the south east.
- Smithills Country Park to the north.
- Leverhulme Local Nature Reserve east of Bolton town centre.
- Borsdane Wood Local Nature Reserve on the Borough's western boundary with Wigan.

3.75 Overall, Bolton benefits from nearly 3,000 hectares of open space and there is an estimated 9.5 hectares of all open space per 1,000 people, which exceeds national benchmarks. However, further analysis of open space set out in **Chapter 4** highlights that access to accessible greenspace varies significantly across the plan area – with central and inner Bolton and areas in the south east of the Borough having lower quantities than areas within the north.

3.76 Bolton's landscapes have high experiential value. However, as shown in **Figure 3.5**, the visibility of greenness across the Borough is highly spatially varied, with much of Bolton characterised by either very high visibility (in rural and riverine areas) or very low visibility (in more densely developed urban areas) [\[See reference 75\]](#). This has important implications for the Borough's sense of place and experience of nature, highlighting a clear disparity between more urban and more rural areas.

3.77 Compared to other boroughs in Greater Manchester, Bolton residents have overall lower access to private gardens, at around 68% of the population (compared

to a national rate of 69.5%) [See reference 76]. However, the proportion of private gardens varies widely across the Borough's neighbourhoods, with Lostock having the highest provision of private gardens and much lower coverage in Bolton town centre, as expected [See reference 77].

3.78 Figure 3.4 illustrates the current network of accessible greenspace within Bolton.

3.79 Various indicators which influence greater or lower open space needs have been combined to produce an 'open space needs index', as shown in Figure 3.6.

Barriers to access

3.80 Barriers to accessing greenspace are often intersectional and can vary across different groups, including by age, gender, ethnicity and socioeconomic background [See reference 78]. Safety is a key consideration for many users, influencing both the ability to reach and the willingness to use green spaces. Recent engagement by Bolton Council with the Youth Council identified safety as a major concern for young people, both in relation to the public realm more generally and when accessing public transport and visiting centres.

3.81 The type and design of open space and routes can also influence accessibility. Many walking, wheeling and cycling routes are located off-road with limited lighting and surveillance, which can act as a deterrent for some users, particularly women [See reference 79]. Existing guidance highlights a number of factors that influence perceived safety, including proximity to roads, vegetation management, overlooking and lighting [See reference 80]. Tools such as Active Travel England's route assessment framework similarly emphasise the importance of safety, placemaking and route quality in determining usability [See reference 81].

3.82 In their current condition, routes that do not meet these criteria - such as the Middlebrook Valley Trail and the route between Heywood Park and Bolton NHS Foundation Trust - may function primarily as leisure routes, rather than supporting everyday active travel.

3.83 Other factors which may deter use of green spaces include fly tipping, anti-social behaviour and the presence of off-road vehicles.

Linear routes and assets

3.84 Bolton has two National Cycle Network (NCN) routes (route 55 and route 80) as shown in Figure 3.8. Route 80 is entirely contained within Bolton and connects Bolton

town centre with Middlebrook. Route 55 is an incomplete route which connects Ironbridge and Preston, with only small fragments present in Bolton. Bolton's water environment is a highly valued linear GI asset, including for its recreational value. Key routes (as shown on **Figure 3.4**) include:

- The **Kingfisher Trail** is a 22-kilometre linear recreational route managed by Lancashire Wildlife Trust from Jumbles Reservoir to Clifton Country Park in Salford. [\[See reference 82\]](#).
- BMBC's **Tonge Trail** is a circular route roughly bounded by the River Tonge and Bradshaw Brook that connects several of Bolton's major green spaces [\[See reference 83\]](#).
- The **Middlebrook Valley Trail** (which overlaps with NCN route 80) is a linear route between Red Moss and Bolton Town Centre via Queen's Park [\[See reference 84\]](#).
- The **GM Ringway** is a 322-kilometre circular route through each of the ten Greater Manchester authorities [\[See reference 85\]](#). The section traversing Bolton is the 'Noble North', crossing east to west from Jumbles Reservoir to Smithills Country Park and through to Blackrod.

3.85 Bolton's major watercourses are covered in more detail in **Theme 4** (Understanding and Managing Bolton's water environment). The role of the River Croal within Bolton's town centre regeneration is discussed in **Theme 3** (Thriving and Prosperous Bolton).

Air quality

3.86 Air quality is a major environmental public health risk in the UK. It can cause more severe impacts in vulnerable groups including the elderly, children, people who are pregnant and those with existing respiratory disease. Overall, air quality in Bolton is better than more urbanised authorities such as Manchester and on par with similarly urbanised authorities such as Wigan – however, there are slightly higher annual means of NO₂ (nitrous oxide), PM_{2.5} and PM₁₀ (particulate matter) [\[See reference 86\]](#).

3.87 Major transport corridors within Bolton were designated in 2002 within the Bolton Air Quality Management Area (AQMA), which has since been subsumed into the Greater Manchester Combined Authority AQMA. The primary source of emissions in the Bolton is the transport sector.

3.88 GI can play a role in reducing air pollution, largely by capturing air pollutants or buffering sensitive locations (such as green barriers along busy roads near schools).

However, the scope for GI to play a significant role in combatting air quality is limited. The major focus must be on transport strategies to improve air quality by influencing how people move around the Borough. The GI network can also play a complementary role alongside transport policies in helping to encourage active travel for daily journeys.

Theme 2 Summary

Key challenges

- **Demand for land for development:** competes with open space needs and green infrastructure principles.
- **Access to greenspace and play space:** Varies significantly across the Borough, with low provision particularly within Bolton town centre and inner Bolton, compared to the north. Intersectional barriers to accessing greenspace, particularly safety concerns.
- **Health and wellbeing disparities:** areas of very high deprivation and associated impacts on health and mental health outcomes.
- **Ageing population:** leading to changing demands for accessible, inclusive green spaces suited to older residents.
- **Low levels of walking and cycling:** with few Bolton residents cycling / walking as a means of travel.
- **Transport-related air pollution:** remains a concern, noting the limited scope for GI alone to mitigate it effectively.
- **Constrained resources:** put long-term maintenance at risk.

Emerging opportunities

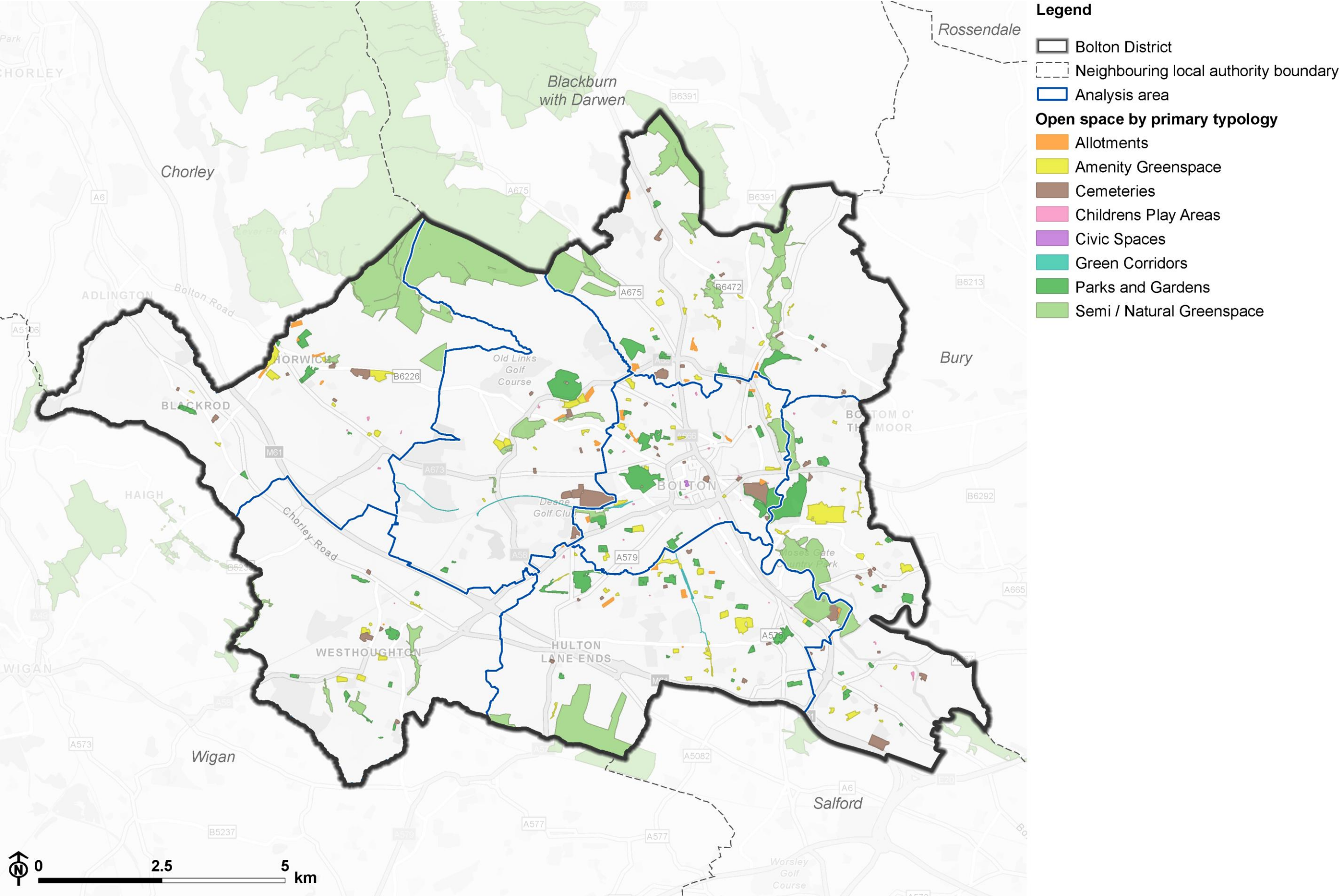
- **Plugging new development into the wider GI network:** Ensure new residential developments include well-connected active travel links and sufficient levels of high quality, multifunctional green space.
- **GI as part of a 'natural health service':** Make the GI network as attractive and accessible as possible to make active and healthy lifestyles the easy choice for all residents. Explore opportunities for green prescribing.

- **Recreational opportunities:** Improve linear access along the Borough's watercourses, incorporating more wheeling and cycling options.
- **Multifunctional restoration of waterways:** including transforming the disused Manchester, Bolton & Bury Canal into a green corridor.
- **Community input:** can offer important local insight into the growth and management of GI in the correct places across the Borough.
- **Initiatives such as 'Right to Grow':** empowers communities to grow food locally on Council-owned land, delivering co-benefits for biodiversity and health and well-being.

Implications for open space provision

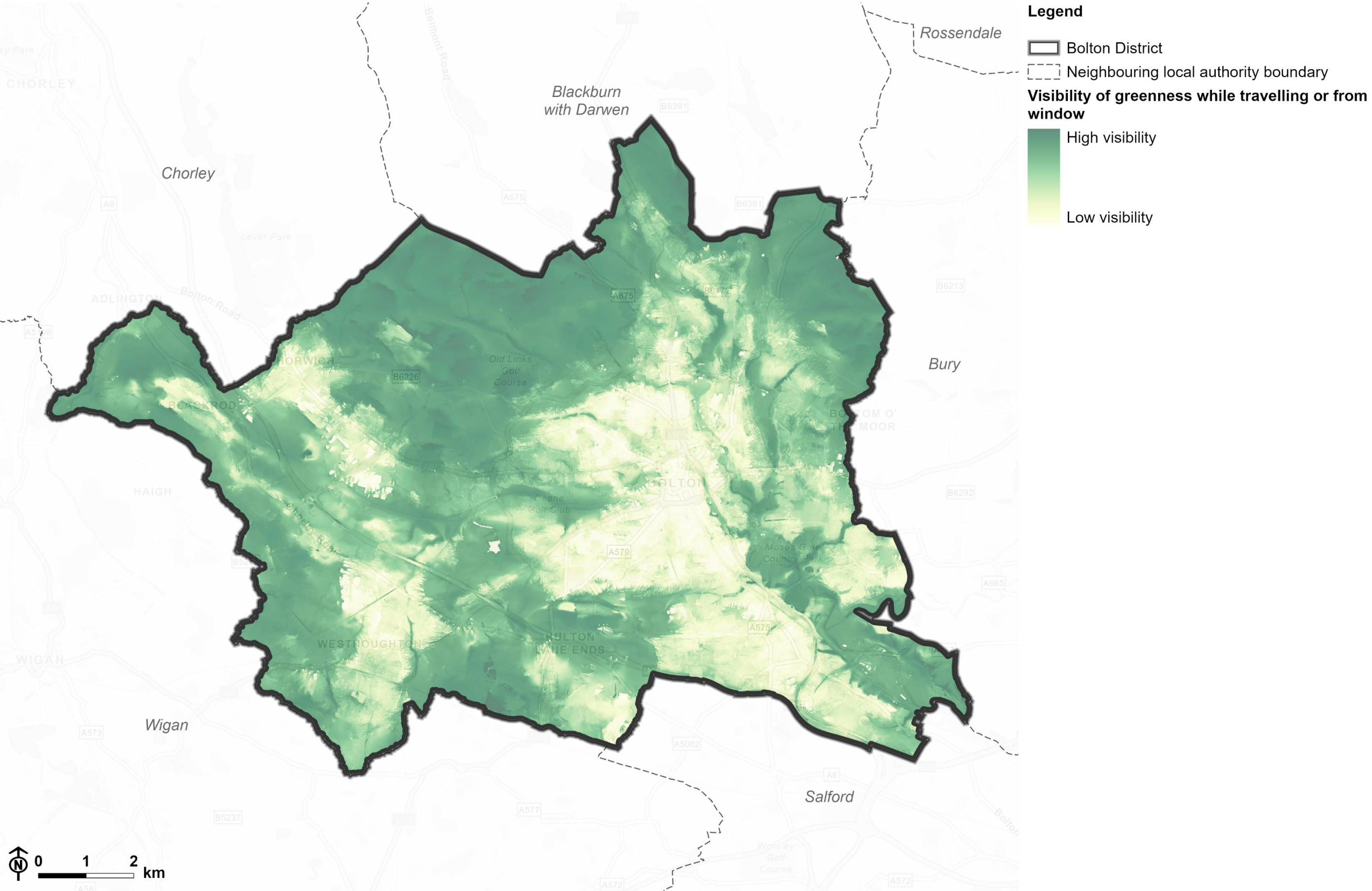
- The growing numbers of older residents in Bolton highlights the need for open space to be designed to suit a range of users. Particular considerations for older populations include well signed facilities (including toilets) and regular seating and resting points on long routes.
- Despite the aging population, it is important that open spaces cater to all ages, including children and young people, including through formal play provision, as well as social seating, natural play and areas of quiet contemplation. Additionally, parks and open spaces should be designed to welcome people from all backgrounds and abilities.
- Inclusion of features and activities within parks which promote physical activity can help further reduce obesity levels within the borough.
- The higher than average levels of deprivation and lower than average access to a private garden further highlight the importance of open space within Bolton.

Figure 3.4: Bolton's existing open space network



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Figure 3.5: Visibility of greenness in Bolton



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Figure 3.6: Combined open space needs in Bolton

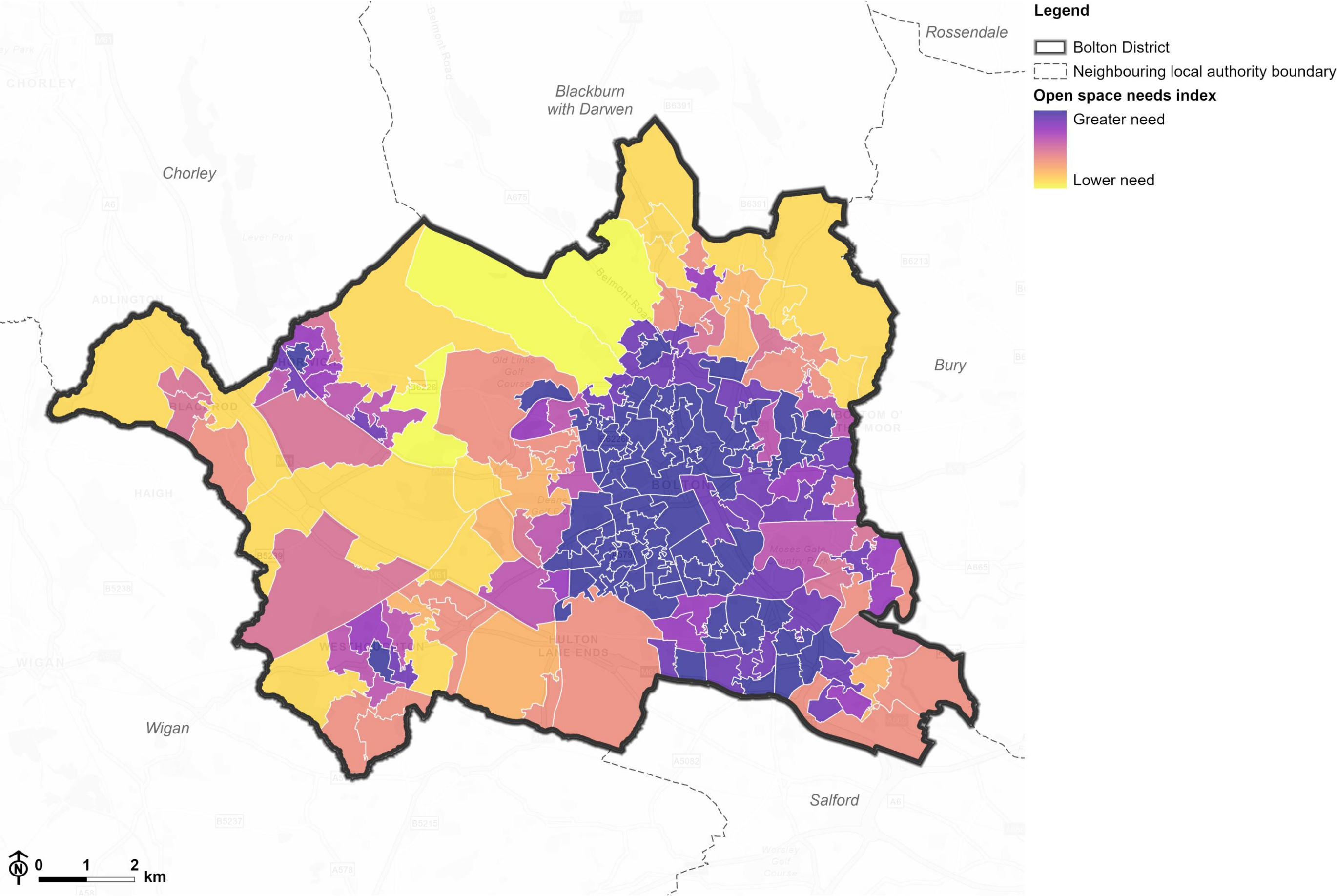
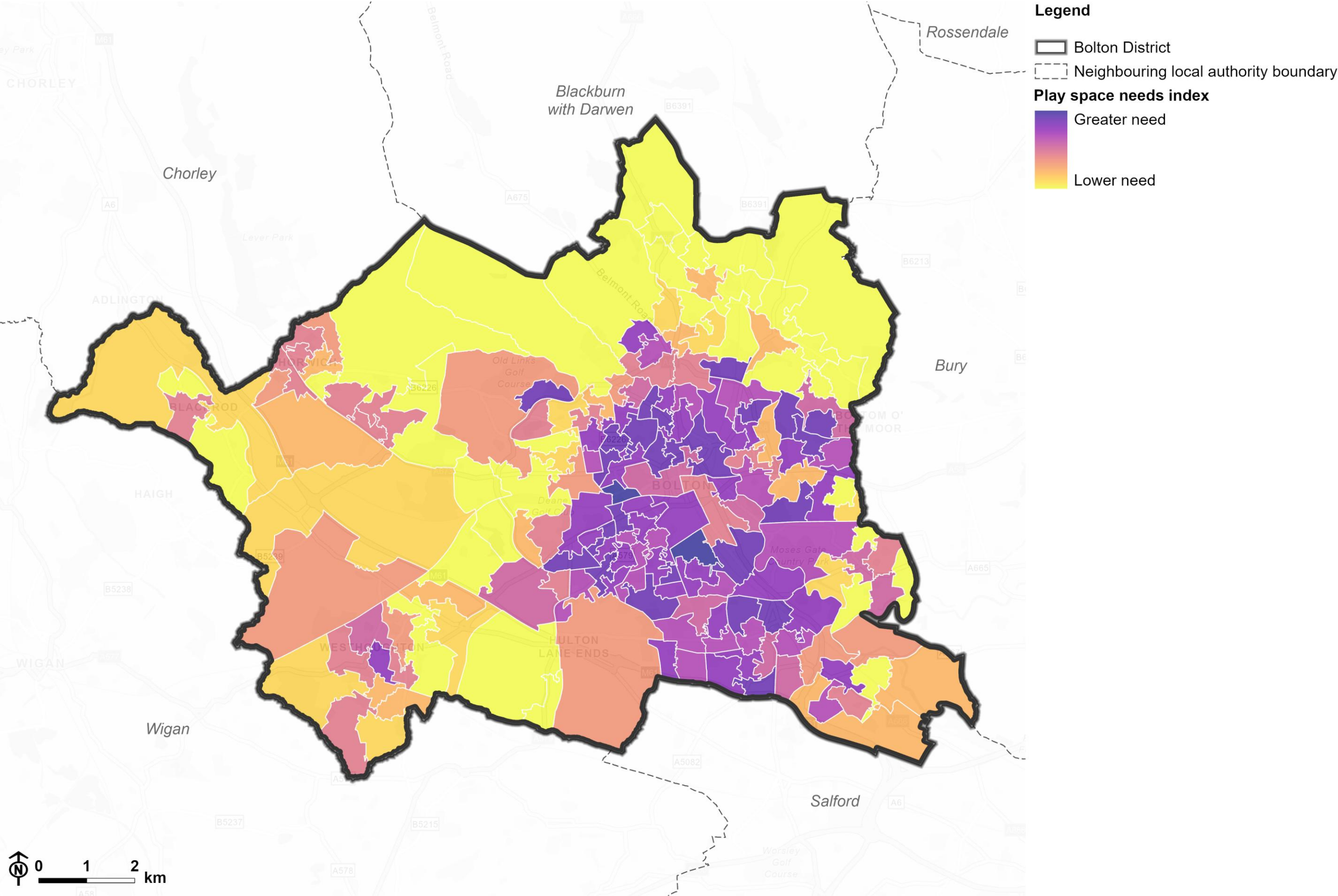


Figure 3.7: Combined play provision needs in Bolton



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Theme 3: Thriving and prosperous Bolton

Why are GI and open space important for a thriving and prosperous Borough?

3.89 GI and open space are key to building thriving, prosperous communities in the Borough. They act as vital 'placemaking' tools by creating attractive, high-quality places that draw businesses, investors and visitors, while also enhancing the setting and character of historic sites. Studies increasingly show that by supporting vibrant retail areas and regeneration efforts, GI helps encourage people to spend more time and money in local centres.

3.90 GI also drives green job opportunities – from ecology experts and green roof installers to those working in food production and forestry. These roles are essential for maintaining and managing the green spaces that enrich everyday life, from local parks to river corridors.

3.91 As competition for skilled workers grows, access to well-connected, nature-rich environments becomes a powerful asset. A strong GI and open space network boosts quality of life, making Bolton a place where people want to live, work and invest, supporting long-term economic success.

3.92 Research carried out by the Centre for Ecology and Hydrology (CEH) and Bournemouth University sets out the clear benefits of nature restoration for economic growth and job creation [\[See reference 87\]](#). It concludes that many local businesses rely on having a healthy and attractive local environment. This includes not only the tourism, recreation and agriculture sectors, but other businesses such as manufacturing and construction, which require clean water, natural materials and a hazard-free environment.

What does national legislation and policy say?

3.93 The national policy agenda is increasingly recognising the role of GI and the natural environment in high quality design and as part of wider economic regeneration agendas. This is led by the UK's **Environment Act 2021**, which highlights how environmental sustainability is inherently tied to economic prosperity.

3.94 England's **National Planning Policy Framework** sets out that planning policies and decisions should help create the conditions in which businesses can invest,

expand and adapt (paragraph 85). The NPPF also sets out the important role of trees for the quality of urban environments (paragraph 136) and supports measures to ensure the vitality of town centres (Chapter 7).

3.95 Finally, England's **National Design Guide** [See reference 88] outlines ten characteristics that create a well-designed place. One of these emphasises the importance of the provision of a network of high quality, green open spaces with a variety of landscapes and activities, including play. A **draft Planning Practice Guidance** document on design and placemaking is under development and will supersede the National Design Guide [See reference 89]. The draft document incorporates GI throughout its proposed features of well-designed places and emphasises planning for both GI assets and networks linking them.

What does local policy say?

3.96 BMBC's recently published **Greenspace Strategy (2026-2041)** sets out a vision that emphasises the importance of green infrastructure for wealth and prosperity, amongst other co-benefits [See reference 90]. The following objective promotes creating thriving places:

- **Landscape, Culture and the Visitor Economy:** Seeks to respect and respond to Bolton's landscape characteristics and incorporate Statements of Environmental Opportunity into sustainability, visitor economy, and a secure environmental future.

3.97 BMBC's adopted **Core Strategy (2011-2026)** includes policies related to creating thriving and prosperous places to help achieve its 'Prosperous Bolton' Strategic Objectives, which emphasise taking advantage of Bolton's location within Greater Manchester, leveraging transport corridors, and transforming Bolton town centre [See reference 91]. In relation to GI and open space:

- **Policy TC11 (Design in the town centre)** encourages suitable development within Bolton town centre to enhance the townscape and deliver "complete streets".
- **Policy IPC1 (Infrastructure and Planning Contributions)** requires certain developments to provide public realm improvements within Bolton town centre.

3.98 Greater Manchester's **Places for Everyone (PfE) Joint Development Plan (2022-2039)** [See reference 92], adopted in 2024, includes overarching economic goals for GMCA in addition to policies promoting growth and prosperity. Relating to GI and open space:

- **Policy JP-Strat8 (Wigan-Bolton Growth Corridor)** outlines the area stated for economic and residential growth which connects the M6 with the M61 between Wigan and Bolton.
- **Policy JP-Strat12 (Main Town Centres)** identifies that GMCA's primary town centres should be local economic drivers and public transport hubs that also maintain distinctiveness and enhance natural and heritage assets.
- **Policy JP-G6 (Urban Green Space)** requires the safeguarding and enhancement of existing green spaces as well as the delivery of new amenities through development and other routes.

3.99 Bolton's Economic Growth and Resilience Strategy (2024) sets out the Borough's priorities for boosting Bolton's local economy in the next decade [See reference 93]. The Strategy places emphasis on developing the green economy and transformation of the town centre as a "major urban hub", two objectives focused on attracting and retaining workers. The Strategy establishes green space as a primary offer for the Borough's visitor economy.

3.100 Bolton's Visitor Economy Strategy (2024-2030) and Delivery Plan identify six themes for intervention and bolstering tourism in the Borough [See reference 94]. The GI network can play a prominent role under these two themes in particular:

- Diversify the offer and image of town centres.
- Lever active and nature-based tourism.

3.101 Marketing Manchester is the **Local Visitor Economy Partnership (LVEP)** which serves Greater Manchester [See reference 95]. The LVEP brings together local authorities, tourism organisations, businesses and other stakeholders to develop and implement strategies for growing the visitor economy throughout the Combined Authority.

3.102 The **River Croal Supplementary Planning Document (SPD) (2020)** guides the intended daylighting of the River Croal through developments in Bolton town centre [See reference 96]. The SPD sets out multi-scale scenarios for delivering public realm along the watercourse that is envisioned to contribute to the centre's regeneration.

What are the assets, challenges and pressures in the Borough?

3.103 Retail trends pose challenges for Bolton's town centres, district centres and local centres. The shift toward online shopping has increased pressure on high streets to diversify. As of 2022, vacancy rates were 34.4% in Bolton's shops [See

reference 97]. Persistent vacancies highlight the need for public realm improvements and GI interventions that enhance footfall, encourage dwell time and improve the townscape experience. This would help Bolton's town, district and local centres (mapped in **Figure 3.8**) align more effectively with a more experience-led approach to town centre regeneration rather than relying solely on retail outlets.

3.104 The NEGIF's 'greenness grid' reflects high levels of manmade structures within Bolton's towns **[See reference 98]**. Bolton town centre has the largest expanse of impermeable surfaces, with manmade rates as high as 97% in the town centre core. Most of the Borough's centres are over 50% manmade, with pockets exceeding 80% within the business parks and industrial estates of Westhoughton, Middlebrook, and Horwich. The influence of impermeable coverage on urban heat is discussed in **Theme 5** (Resilient and Climate-positive Bolton).

3.105 Urban areas throughout the Borough could improve their offer through the implementation of green infrastructure improvements. Middlebrook in particular is a major leisure destination in Bolton, with stadiums and ample shopping venues. However, it has very low "greenness" according to Natural England's "greenness grid" **[See reference 99]**. This detracts from Middlebrook's place quality and has potential impacts for dwell time in the area.

3.106 Town centre regeneration is a primary focus in Bolton and BMBC have worked to deliver on schemes which would also yield GI improvements:

- In 2024, Bolton opened its first new park in over a century (Elizabeth Park) utilising the Towns Fund **[See reference 100]**.
- The Deansgate Gardens housing proposal will deliver enhancements to the adjacent River Croal embankment, part of the larger Council strategy to open up the river as an essential linear asset through Bolton town centre **[See reference 101]**.
- Registered Parks and Gardens such as Queen's Park and Farnworth Park are key urban destinations for residents and visitors alike, and there is great potential to improve active travel routes to and from these assets.

3.107 The proposed Bolton Town Centre Mayoral Development Corporation (MDC) is designed to unlock funds to boost economic performance and enhance quality of life, including through infrastructure delivery **[See reference 102]**. This brings implications for how GI can be planned, delivered and maintained in Bolton, particularly in Bolton town centre – including the ability to better coordinate public realm and GI projects as a single, integrated network.

3.108 The GMCA's Good Growth Fund is a major pot of investment for regeneration, housing and transport across Greater Manchester, including Bolton, which helps make big projects viable and improves public spaces [\[See reference 103\]](#).

3.109 Because it targets the same town centre and growth areas as the proposed Bolton MDC, the two initiatives are likely to work hand-in-hand - bringing in funding, coordinating development and creating more chances to build good quality green spaces and green routes as part of regeneration.

GI, the visitor economy and the historic environment

3.110 GMCA has a broad tourism portfolio, which in 2023 has a total estimated economic impact of approximately £12.7 billion per year [\[See reference 104\]](#). Within the region, Bolton is home to three highly visited attractions in the top 25 of those visited in Greater Manchester:

- Bolton Museum
- Bolton Aquarium
- Smithills Hall

3.111 As stated in the Economic Growth and Resilience Plan, a third of Bolton is covered by some type of green space or woodland. Existing GI and open space assets like protected sites, Country Parks and trails play a vital role in the Borough's visitor economy. However, there is a stark disparity of access to and visibility of green space between the urban and rural areas of the Borough that adversely impacts the experiential value of Bolton's landscape in its town, district and local centres (see **Figure 3.5** in **Theme 2**).

3.112 Bolton's historic environment contributes significantly to the Borough's distinctiveness and visitor appeal – including the experiential value of Bolton's valued landscapes, such as Moses Gate Country Park, the Smithills Estate and the moorland slopes rising towards Winter Hill.

3.113 The Borough is home to a number of Conservation Areas, Scheduled Monuments and Registered Parks and Gardens (see **Figure 3.8**). These are assets which can be of great value in promoting Bolton's visitor economy – for example, the initiative by BMBC and Lancashire Wildlife Trust to restore Rock Hall (within Moses Gate Country Park) will deliver co-benefits for the economy, heritage and nature [\[See reference 105\]](#).

3.114 Despite the presence of these valued assets, the GI network as a whole could do more to connect key destinations (particularly by walking and cycling routes) and enhance their settings.

Theme 3 Summary

Key challenges

- **Uneven green space provision and quality** across the towns and rural areas of the Borough.
- **Fragmented GI networks and poor connectivity** in town centres and between key visitor destinations/landscapes, weakening connectivity and limiting their placemaking potential.
- **Poor quality of public realm in parts of town centres, with inadequate GI provision** – particularly in Bolton town centre, detracting from appearance, usability and visitor experience.
- **Commercial vacancy pressures** which reflect wider retail decline and the need to explore a more GI-led approach.
- **Underutilised visitor economy potential** with key GI and open space assets not fully integrated into the wider network as part of a coherent destination offer.
- **Constrained resources:** result in limited funding streams and opportunities for both implementation and maintenance.

Emerging opportunities

- **Public realm and greening improvements** in Bolton town centre, including those identified in the River Croal SPD, to support placemaking.
- **Integrating GI into streetscapes** throughout the Borough, enhancing active travel routes and encouraging a diverse range of users.
- **Strategic investment in underprovided areas**, targeting quality upgrades and better connectivity between existing green spaces.
- **Connecting and enhancing high-profile visitor destinations**, particularly waterways, heritage sites and key landscapes, to anchor a wider GI-led

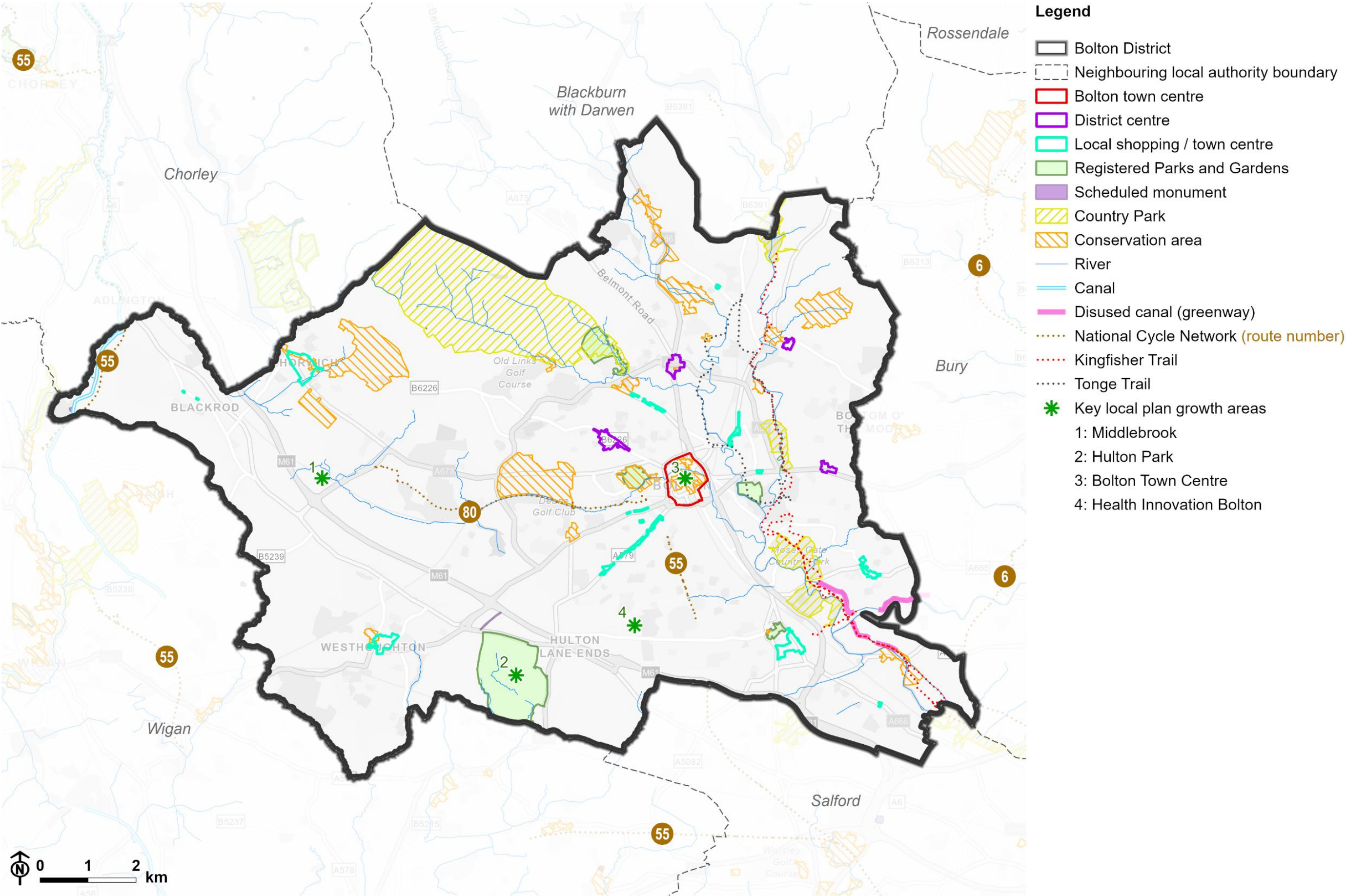
tourism offer. This could include a coherent network of recreational walking and cycling routes with high quality, consistent wayfinding as the anchor of the offer.

- **Capitalising on heritage assets** such as the Borough's Conservation Areas, Registered Parks & Gardens, and scheduled monuments, through high-quality green settings that enhance experience and dwell time.

Implications for open space provision

Larger open spaces, including country parks, are an important attraction for tourism in Bolton. These spaces should be managed to further support the visitor economy. However, ensuring there is sufficient provision for open space to support visitors and residents will be important.

Figure 3.8: GI, heritage and placemaking in Bolton



Theme 4: Understanding and managing Bolton's water environment

Why is GI important for improved water management in the Borough?

3.115 GI has a vital role to play in how Bolton manages water, both in everyday conditions and during extreme weather. Thoughtfully planned GI can support a more natural, sustainable water cycle while delivering multiple other benefits for people and nature.

3.116 At both local and catchment scales, GI can act as a nature-based solution to manage flood risk. Features like swales, wetlands and rain gardens slow the flow of water, reducing pressure on drains, sewers and watercourses. This not only helps prevent surface water flooding and storm overflow incidents, but also allows more water to be stored, absorbed and put to positive use – such as supporting green space and biodiversity.

3.117 GI can also help improve water quality. Natural planting and permeable surfaces encourage filtration, reducing pollutants before they reach rivers and streams. This supports healthier ecosystems and can even recharge groundwater, helping to build long-term resilience into the local water cycle.

3.118 Bolton's rivers – including the Croal, Tonge, Irwell, and Douglas (and their tributaries) – not only play an essential role in flood management but also form part of the Borough's ecological networks and are valuable assets for recreation and wellbeing. Enhancing the water environment through GI can therefore deliver a powerful combination of environmental, social and economic benefits.

What does national policy say?

3.119 Water management is closely integrated into the planning policy landscape. Concerns over future climate resilience and the deteriorating quality of the UK's rivers are leading to an increasingly prominent policy position.

3.120 The core aim of the EU's **Water Framework Directive (WFD)**, which was retained in UK law after the country left the European Union, is to protect the country's water environments by preventing their deterioration and improving their quality [\[See reference 106\]](#). The planning system is required to consider this, guided

by a series of River Basin Management Plans (RBMP). The relevant plan for Bolton Borough is the **North West River Basin district RBMP** – it describes the current condition and challenges for water resources in the catchment area, and sets out objectives and actions to manage and improve water resources [\[See reference 107\]](#).

3.121 The UK's **Environment Act 2021** also sets out ambitious targets for improving water quality in England's watercourses, including reducing pollutants like phosphorus, nitrates and microplastics. In general, national policy adheres to a **Catchment-based approach (CaBA)**, led by the Environment Agency, which aims to improve water quality and watercourse health by considering the whole area that feeds into the river, not just the river itself.

3.122 In this light, the **NPPF** requires that new developments should manage surface water effectively on site and protect watercourses from contamination. Sustainable Drainage Systems (SuDS) features should be multifunctional wherever possible, in part to improve water quality. Additionally, Planning Practice Guidance (PPG) [\[See reference 108\]](#) states that GI can contribute to the protection of water quality and other natural resources.

3.123 National policy in England is evolving to promote the wider adoption of SuDS. The requirement of SuDS incorporation into development and establishment of a SuDS Approval Body (SAB) was planned through **Schedule 3 of the Flood and Water Management Act** in 2024 [\[See reference 109\]](#). However, at the time of writing, the policy has still not yet been fully implemented.

3.124 The UK's **National Design Guide** [\[See reference 110\]](#) includes a policy to improve and enhance water management, noting the importance of effective SuDS. In well-designed places, it notes, water features form part of an integrated system of landscape, biodiversity and drainage. Likewise, the **draft design and placemaking PPG** highlights early and holistic consideration of SuDS during the design process.

3.125 Finally, Defra has also recently published **National standards for SuDS** to guide design of surface water drainage systems for new developments. It promotes a 'natural' approach to water management, which promotes water quality, biodiversity and amenity benefits as well as water management [\[See reference 111\]](#).

What does local policy say?

3.126 BMBC's recently published **Greenspace Strategy (2026-2041)** sets out a vision that emphasises the importance of green infrastructure for water management, amongst other co-benefits [\[See reference 112\]](#). The following objectives are relevant to addressing water issues and blue infrastructure assets:

- **Local Nature Recovery:** Seeks to align with the LNRS to support achieving nature recovery targets.
- **Climate and Sustainability:** Seeks to mitigate flooding, improve water quality and regulate water flow through measures including peatland restoration and functional green spaces.

3.127 Bolton's Core Strategy (adopted in 2011) includes the following policies relating specifically to water management:

- **Policy CG1 (Cleaner and Greener Bolton)** requires the risk of flooding to be reduced in Bolton and other areas downstream by minimising water run-off from new development.
- **Policy CG2 (Cleaner and Greener Bolton)** includes the need for proposals for 5 or more residential units, or 500m² or greater non-residential units to demonstrate the sustainable management of surface water run-off.
- **Policy IPC1 (Infrastructure and planning contributions)** includes the need for all types of developments to contribute to flood protection and mitigation measures.

3.128 Greater Manchester's **Places for Everyone (PfE) Joint Development Plan 2022 to 2039** (Adopted 2024) sets out the following policies in relation to water management:

- **Policy JP-S4 (Flood Risk and the Water Environment)** focuses on the development of a catchment-based approach to protect the quantity and quality of water bodies through a number of approaches, including re-naturalisation of watercourses, minimising flood risk, and implementing sustainable drainage measures.
- **Policy JP-G3 (River Valleys and Waterways)** focuses on the protection and improvement of river valleys and waterways. It aims to protect and improve them as central components of the GI Network and a vital asset of a Nature Recovery Network.
- **Policy JP-G4 (Lowland wetlands and mosslands)** focuses on the protection, enhancement and restoration of lowland wetlands and mosslands such as Bolton's Red Moss.
- **Policy JP-G5 (Uplands)** touches on the aim to increase the role of upland areas in water storage, flood risk management (through Natural Flood Management) and water quality improvements, as part of a catchment-based approach.

3.129 The 2018 **Greater Manchester Strategic Flood Risk Management Framework** provides a spatial framework for Flood Risk Management across Greater Manchester, highlighting key strategic flood risks and recommended key priorities for intervention [\[See reference 113\]](#).

3.130 The majority of Bolton lies in the Irwell Catchment, with smaller sections lying within the Douglas Catchment and the Mersey Catchment (see **Figure 3.9**) [\[See reference 114\]](#). Each is covered by a catchment management plan, which provides an overview of flood risks and sets out a preferred plan for sustainable flood risk management over the next 50-100 years [\[See reference 115\]](#) [\[See reference 116\]](#) [\[See reference 117\]](#).

3.131 The **Bolton River Croal SPD** was adopted in 2020 and provides advice on how the Council envisages the River Croal and its riverbank to be opened up. It also guides the delivery of development along the River Croal, considering local policies and contextual changes within the Bolton Town Strategy, together with flood risk principles [\[See reference 118\]](#).

What are the assets, challenges and pressures in the Borough?

Key blue corridors and their futures

3.132 As shown on **Figure 3.9**, Bolton's key river corridors include the River Croal and the River Tonge - both important tributaries of the River Irwell, which forms the main river system in the wider catchment. Each of these have several major tributaries running through the Borough - including Astley Brook, Bradshaw Brook and Middle Brook.

3.133 Now disused, the main canal that served Bolton was the Manchester, Bolton & Bury Canal. It was constructed in the late 1700s and built to link Bolton and Bury with Manchester. However, it was officially abandoned in 1961. The best-preserved section of the canal now serves as a green corridor around Prestolee and Nob End (see **Figure 3.8** under **Theme 3**), and in recent years the canal has been partly restored by local volunteers – led by the Manchester, Bolton & Bury Canal Society. Plans are also being formulated to complete the restoration of the canal over the next few years [\[See reference 119\]](#).

3.134 As referenced in **Theme 3**, there are several ongoing initiatives to improve Bolton's water environment, including the new Deansgate Gardens development in Bolton town centre. The proposal will contribute to the improvement of the Borough's blue corridor network by enhancing a section of the River Croal's embankment -

increasing capacity during flood events and allowing for planting opportunities and riverside public realm [\[See reference 120\]](#).

3.135 Invasive non-native species pose serious threats to Bolton's blue corridors, as covered in **Theme 1**.

3.136 Strategic partnerships play an important role in management and improvement of the Borough's waterways:

- The **Irwell Catchment Partnership** is part of the Catchment Based Approach (CaBA) and hosted by Groundwork. It is made up of several organisations that have a shared aim to “work collectively to improve the rivers, brooks, streams, lakes and canals” within the catchment [\[See reference 121\]](#).
- The **Lower Mersey Catchment Partnership** is part of the CaBA and hosted by the Mersey Rivers Trust. It is designed to develop an evidence base upon which informed decisions can be taken; ensure cleaner and healthier waterbodies, establish integrated water management and support opportunities for using the water environment and engaging the community [\[See reference 122\]](#).
- The **Greater Manchester Flood Partnership** brings together Flood Risk Management Authorities and other organisations with interests in flood risk management. The partnership works closely with GMCA [\[See reference 123\]](#).
- The **Natural Course** project (which ended in March 2024) was a collaboration of public, private and third sector organisations working to deliver improvements to rivers and the water environment across North West England. In Bolton, in particular, they worked to provide natural flood management at the Smithills Estate on the outskirts of the Borough [\[See reference 124\]](#).
- The **Manchester, Bolton & Bury Canal Society** is a voluntary group founded with the aim of restoring, reconstructing, preserving, maintaining and improving the Manchester, Bolton & Bury Canal. Since its establishment in 1987, it has restored a number of canal sections and amenities and works closely with Bolton, Bury and Salford Councils as well as the Canal & River Trust [\[See reference 125\]](#).

Water quality

3.137 As shown on **Figure 3.9**, data from the relevant River Basin Management Plans indicates that all of the rivers within Bolton are in ‘moderate’ ecological condition [\[See reference 126\]](#). Under the Water Framework Directive, all water bodies should aim to achieve ‘good’ ecological condition status by 2027. With the

exception of one artificial lake, all water bodies in Bolton are designated as being 'heavily modified' by human intervention.

3.138 As is the case across the UK since 2019, all rivers within Bolton are failing their surface water chemical classification since the monitoring of Ubiquitous Persistent, Bio-accumulative and Toxic substances (uPBTs) was introduced [See reference 127]. Excluding uPBTs, all water bodies within Bolton achieve 'good' chemical classification – with the exception of the River Irwell (Croal to Irk), River Irwell (Roch to Croal) and Bedford Brook, which all fail based on the presence of an insecticide called cypermethrin.

Water supply

3.139 Bolton's public water supply derives from river sources, reservoirs and groundwater sources.

3.140 The increasing frequency of dry weather poses a threat to the reservoirs that serve the Borough. In 2025, the Rivington and Belmont Reservoirs and the Pennine Sources were affected by prolonged dry weather, with water levels in the Pennine Sources dropping by half [See reference 128]. A similar occurrence was seen in 2022 with Wayoh and Turton, and Entwistle Reservoir [See reference 129].

3.141 These pressures on water supply have direct implications for Bolton's GI network. Falling reservoir levels and prolonged dry periods can reduce water availability for the Borough's upstream habitats, weaken wetland and riparian ecosystems, and increase stress on landscapes that rely on sustained moisture regimes.

Flood risk

3.142 Out of the ten boroughs in Greater Manchester, Bolton has been identified as one the five boroughs that appears to be most at risk of flooding [See reference 130]. As shown on **Figure 3.10** within **Theme 5**, fluvial (river) flood risk in Bolton (the primary source of flood risk) is concentrated along major river and tributary corridors.

3.143 Surface water flood risk is present throughout Bolton and may increase flooding downstream. There is also a risk of sewer flooding in some parts of the Borough [See reference 131].

3.144 The Irwell Catchment Flood Management Plan established policies and actions to mitigate flood risk in Bolton:

3.145 In Bolton, the flood risk from the River Irwell is primarily from the abundance of culverts on ordinary watercourses and the capacity of the sewerage system. Actions to address risk include identifying potential flood storage areas. Other parts of the management plan focus on identifying potential natural flood plain storage or sites for storage basins and providing advice on development to better manage surface run-off. The Douglas Catchment Flood Management Plan focuses on risks around the areas of Horwich and Rivington. Proposed actions include working with the Council and United Utilities to manage sewer and local surface water flooding.

Theme 4 Summary

Key challenges

- **Underperforming ecological condition:** throughout Bolton's rivers, with current status reaching 'moderate'. The Water Framework Directive requires all water bodies to achieve 'good' ecological status by 2027.
- **Fluvial flood risk:** concentrated along Bolton's river corridors.
- **Water availability and environmental resilience:** abstraction restrictions, increasing threat of drought and need for improved water storage and sustainable drainage measures.

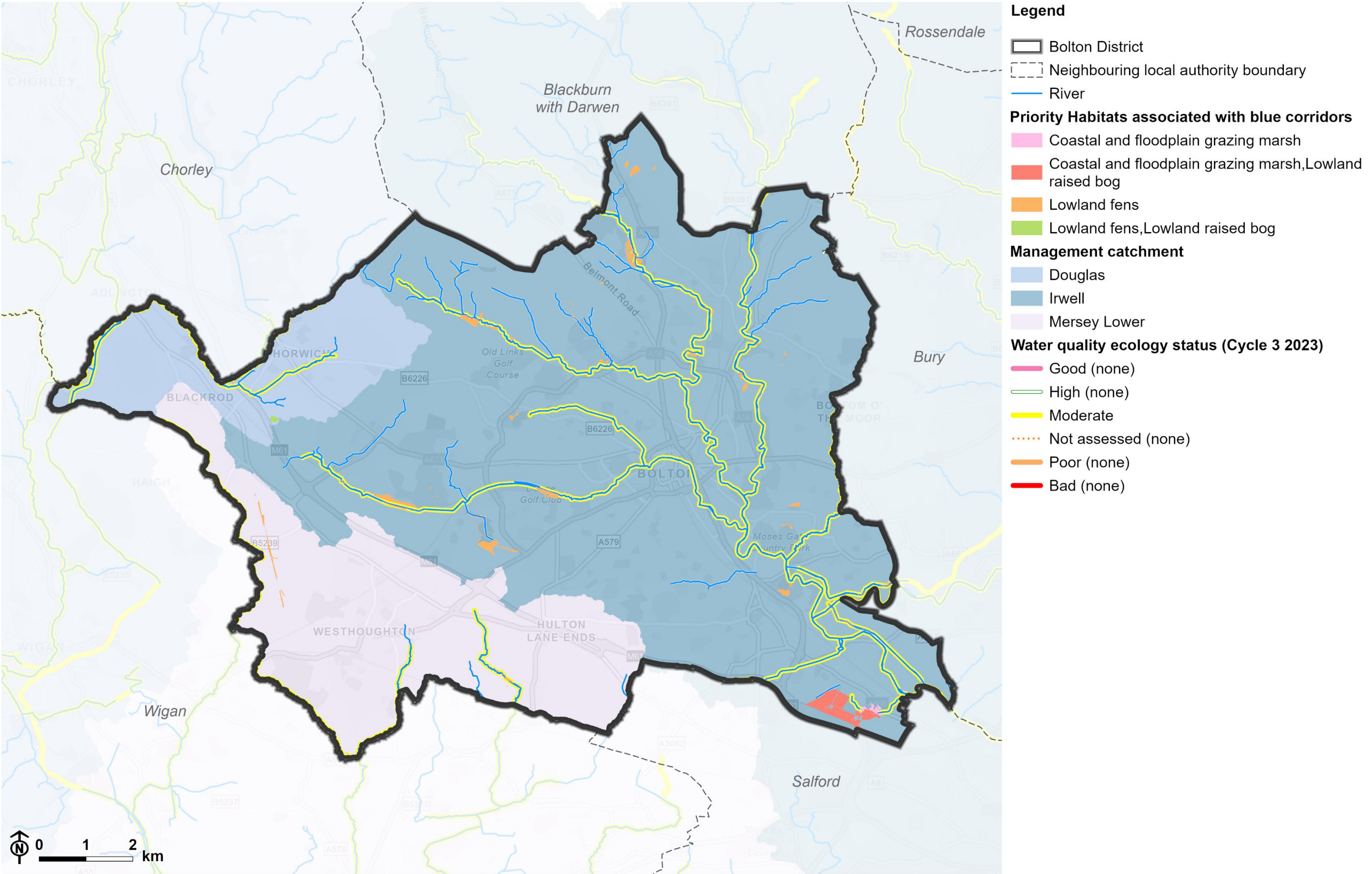
Emerging opportunities

- **Strategic partnerships:** such as the Irwell Catchment Partnership, which supports coordinated water quality and local waterbody improvements. Public and private organisations with land on the banks of the Borough's watercourses are also important actors in the improvement of Bolton's water environment.
- **Access to blue corridors:** the extensive network of rivers and tributaries can be enhanced to provide valuable corridors for recreation and biodiversity.
- **Catchment-scale management:** facilitates cross-boundary working and improvements to water quality across the entire catchment.
- **Re-naturalisation:** The Borough's heavily modified water bodies should be prioritised for restoration and re-naturalisation for ecology, flood risk and recreation benefits.

Implications for open space provision

- Blue infrastructure forms an important element of the open space context in Bolton, including woodlands, river valleys and walking routes around reservoirs. Sensitive riparian habitats need to be managed to ensure that recreational pressure does not adversely impact water quality.
- Additionally, where open space includes contaminated water, this could pose a health risk to visitors to open spaces. Management of open spaces should ensure that, where necessary, visitors are informed to stay away from contaminated water within open spaces. Furthermore, some open spaces along rivers may form part of the floodplain. These spaces should be managed to maximise their role as natural flood management assets, whilst ensuring this does not compromise the safety of visitors.

Figure 3.9: Bolton's network of blue corridors



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Theme 5: Resilient and climate-positive Bolton

Why are GI and open space important for resilient and climate-positive places in the Borough?

3.146 In the face of intensifying environmental pressures, resilient landscapes are those that can absorb and recover from change while continuing to provide essential functions. GI plays a vital dual role in responding to climate change – both by *mitigating* its causes and by helping us *adapt* to its unavoidable impacts.

3.147 To support climate mitigation, a well-designed GI and open space network can reduce emissions through carbon sequestration in habitats such as woodlands, wetlands, peatlands and grasslands, while also supporting low-carbon travel via walking, wheeling and cycling routes and green corridors (alongside strong sustainable transport policies).

3.148 At the same time, GI is key to climate adaptation – enhancing flood resilience and water retention, providing cooling and shading in urban areas and improving habitat connectivity to allow wildlife to move and adapt as conditions change. **Theme 4** (Understanding and Managing Bolton's Water Environment) goes into further detail about the Borough's water environment and the role of GI in flood mitigation.

What does national policy say?

3.149 The **UK's Climate Change Act 2008** (as amended in 2019) sets a target of reducing greenhouse gas emissions to net zero by 2050 [\[See reference 132\]](#). England's 25 Year Environment Plan also includes a strong focus on protecting and improving the environment to tackle climate change.

3.150 The UK's independent Climate Change Committee published **Policies for a Net Zero UK** in 2020, which recommends increasing woodland cover in the UK from 13% to a minimum of 17% by 2050 (and ideally to 19%) to help the country achieve net zero carbon emissions in support of full decarbonisation [\[See reference 133\]](#). The Government launched a **Tree Planting Task Force** in November 2024, to strengthen collaborative working and oversee the planting of millions of trees, noting that the UK has lower tree cover than almost anywhere in Europe and recognising the need to close the gap [\[See reference 134\]](#).

3.151 Similarly, the government's **Nature Positive 2030 report** [\[See reference 135\]](#) aims to combat climate change and biodiversity loss through the deployment of nature-based solutions for climate change mitigation – notably by restoring peatlands and planting native trees.

3.152 England's **National Planning Policy Framework (NPPF)** includes a requirement to mitigate and adapt to climate change (as a key environmental objective under paragraph 8). The planning system is explicitly required to support the transition to net zero by 2050.

3.153 Finally, the UK's **10-year Infrastructure Strategy** released in June 2025 [\[See reference 136\]](#) highlights a significant role for nature-based solutions and GI in climate mitigation and adaptation. The strategy emphasises a hierarchy for infrastructure design, which instructs that “first, maintain and optimise existing assets. Then, consider green and nature-based solutions where they are effective. New 'grey' solutions should only be deployed if other solutions are not viable.”

What does local policy say?

3.154 BMBC declared a climate emergency in 2019, which committed the Council to considering climate impacts in all future policies and spending decisions.

3.155 Greater Manchester's **Places for Everyone (PfE) Joint Development Plan 2022 to 2039** (Adopted 2024) sets out the following policies in relation to climate resiliency:

- **Policy JP-S2 (Carbon and Energy)** supports the delivery of a carbon neutral Greater Manchester through a number of measures, including the nature-based solutions to carbon sequestration through peat-based habitats, woodlands, tree planting and natural flood management.
- **Policy JP-S4 (Flood Risk and the Water Environment)** sets out that catchment-based approaches should be adopted throughout GMCA and that flood risk should be managed through re-naturalisation, natural flood management, and sustainable drainage systems.

3.156 BMBC's recently published **Greenspace Strategy (2026-2041)** sets out a vision that emphasises the importance of green infrastructure for climate resilience, amongst other co-benefits [\[See reference 137\]](#). The following objectives address climate-related issues:

- **Biodiversity and Offsetting:** Seeks to incorporate carbon offsetting into decision-taking.

- **Climate and Sustainability:** Seeks to leverage green infrastructure to mitigate urban heat, reduce flood risk and capture carbon.

3.157 Bolton's existing **Core Strategy** (adopted in 2011) includes the following policies which relate to creating resilient and climate-positive places through the GI network:

- **Policy CG1 (Cleaner and Greener)** aims to reduce the risk of flooding in Bolton and downstream areas by minimising water run-off from new development. The policy also remarks on the need to protect and enhance the Borough's biodiversity to reduce flood risk and combat climate change

3.158 BMBC published their **Climate Change Strategy** in 2021, which sets out its response to the climate emergency [\[See reference 138\]](#). The strategy is supported by six "pillars" that are critical to its success – including the Natural Environment and Climate Resilience.

3.159 Since 2020, GMCA has released and updated its **Five-Year Environment Plan** which aligns with the **Local Growth Plan** to stimulate growth in the region's clean growth sectors and promote more sustainable lifestyles and business models [\[See reference 139\]](#).

3.160 As referenced above, the **Greater Manchester Local Growth Plan (2026)** [\[See reference 140\]](#) aims to create a greener, more equal future, which will involve taking action to improve the environment and make a city region with 'abundant, attractive' and nature-rich green spaces.

3.161 Finally, **Greater Manchester's Sustainable Drainage Design Guide (2024)**, published as part of the overall "Streets for All" Design Guidance, provides guidance on the design, delivery and maintenance of SuDS in Greater Manchester [\[See reference 141\]](#).

What are the assets, challenges and pressures in the Borough?

Supporting low-carbon travel

3.162 The transport sector is the highest emitting sector in the UK, accounting for almost a third of all greenhouse gas emissions [\[See reference 142\]](#). In 2022-23, transport in Bolton accounted for 35% out of a total 1.2 million tonnes of carbon dioxide emissions [\[See reference 143\]](#).

3.163 As set out under **Theme 2** (active and healthy Bolton), levels of walking, wheeling and cycling today in the Borough are low given poor provision of options for these modes of transport. A well-planned GI network can work alongside sustainable transport policies to provide high quality options that reduce car dependency and, as a result, carbon emissions.

“Carbon sink” assets

3.164 “Carbon sinks” are natural habitats that absorb more carbon dioxide (CO₂) from the atmosphere than they release. They help reduce the amount of greenhouse gases in the atmosphere, which can play a supporting role to full decarbonisation programmes in climate mitigation efforts. While Bolton does not contain a large amount of carbon-storing habitat, it does have quantities of peatlands, woodlands and forests, and grasslands according to Natural England’s Priority Habitats Inventory [See reference 144]. Bolton’s habitats are discussed in further detail in **Theme 1** (nature-rich Bolton).

3.165 According to ONS datasets, as of 2019 woodland cover in BMBC stood at 9.7%. This is just under the English average of 10% and nearly half the national 2050 target of 17% [See reference 145]. Threats to trees across the UK pose significant challenges - disease and pests are a significant concern, often exacerbated by the effects of climate change [See reference 146].

3.166 The City of Trees Greater Manchester’s Urban Forest Plan acknowledges disease as a pressing challenge, amongst others, and sets out a strategy to deliver 3 million trees across the area by 2045 [See reference 147]. The mapping accompanying the plan identified that in BMBC, tree planting would be most beneficial in rural countryside with limited tree cover. This includes areas surrounding Blackrod, south of the West Pennine Moors, and west of Farnworth.

3.167 Peatlands, including blanket bog, raised bog and fens, are carbon-rich habitats which have very high carbon-storage potential. However, degraded and drained peatlands quickly become significant contributors to carbon emissions, highlighting the urgency of protecting these assets. Bolton has several areas of blanket bog and lowland raised bog in the north and south including Red Moss SSSI, which are significant carbon sinks [See reference 148], as well as woodland sites, particularly in the east of the Borough [See reference 149].

3.168 The Lancashire Peat Partnership, co-ordinated by the Lancashire Wildlife Trust and Forest of Bowland National Landscape, aims to promote the importance of peatland restoration – while also working to deliver restoration projects across large

areas of the County [\[See reference 150\]](#). This forms an important geographical context for Bolton, however the focus of this work is north of Bolton's boundaries.

Wildfire risk

3.169 Greater Manchester already sees regular wildfires on moorland, including the 2018 fires in Bolton which ultimately spread over 18 square kilometres and released high levels of particulate matter across the region [\[See reference 151\]](#).

3.170 Wildfires can have extreme impacts on habitats, air quality, the built environment and human life (the impact of air quality on health is addressed in **Theme 2**). As discussed above, peatlands are particularly at risk due to their ability to release carbon into the atmosphere when damaged.

3.171 In a changing climate, it is likely that the frequency and severity of wildfires will increase in the coming years. Bolton have taken measures to reduce the risk of wildfire, in particular adopting a Public Spaces Protection Order in 2023 which prohibits potential wildfire-starting activities on the moorlands [\[See reference 152\]](#). Likewise, the West Pennines Landscape Recovery Scheme discussed in **Theme 1** focuses on the restoration and re-wetting of peatlands, an important factor in the reduction of moorland wildfire.

Urban heat impact

3.172 **Figure 3.10** highlights those areas of Bolton where communities are most vulnerable to urban heating, informed by MappingGM analysis [\[See reference 153\]](#). Heat risk areas were defined as those where the 5-year average summertime land surface temperature exceeds 25 degrees. Bolton has limited pockets of heat risk when compared to neighbouring Wigan and the central and southern authorities in GMCA. However, in Bolton, most areas of heat risk overlap with areas with high social vulnerability. [\[See reference 154\]](#)

3.173 Increasing canopy cover is an effective way to manage urban heat. The Tree Equity Score Map (developed by American Forests) is a tool that identifies where tree cover is needed within built-up areas by combining data on canopy cover with social and environmental factors – helping target urban tree planting to improve health, climate resilience and equity in underserved communities. The tool highlights a number of gaps where urban tree planting should be prioritised within neighbourhoods in the urban centre, west and south of Bolton [\[See reference 155\]](#).

Flood risk

3.174 Nature-based solutions to flood risk are a central tenet of GI's contribution to greater climate resilience across the Borough. For the purposes of this report, the use of nature-based GI solutions to address flood risk is dealt with under **Theme 4** (Understanding and Managing Bolton's Water Environment).

Theme 5 Summary

Key challenges

- **Carbon emissions:** are dominated by transport (35%), requiring better GI integration with sustainable transport to support low-carbon alternatives.
- **Woodland cover:** is below the national average at 9.7% and noticeably below the national target for 2050 coverage (17%).
- **Peatland:** Including at sites such as Red Moss, need to be properly protected and stored in order to fulfil their role as an important "carbon sink".
- **Extensive impermeable surfaces:** within built-up areas have large expanses of hard surfaces, contributing to heat vulnerability and flood risk.
- **Tree planting and urban greening:** need better targeting in vulnerable urban communities where both heat and social inequity have been identified.
- **Risk of wildfire:** is a significant threat in Bolton, with impacts on air quality, sensitive habitats, carbon sequestration and access/experience of the natural environment.

Emerging opportunities

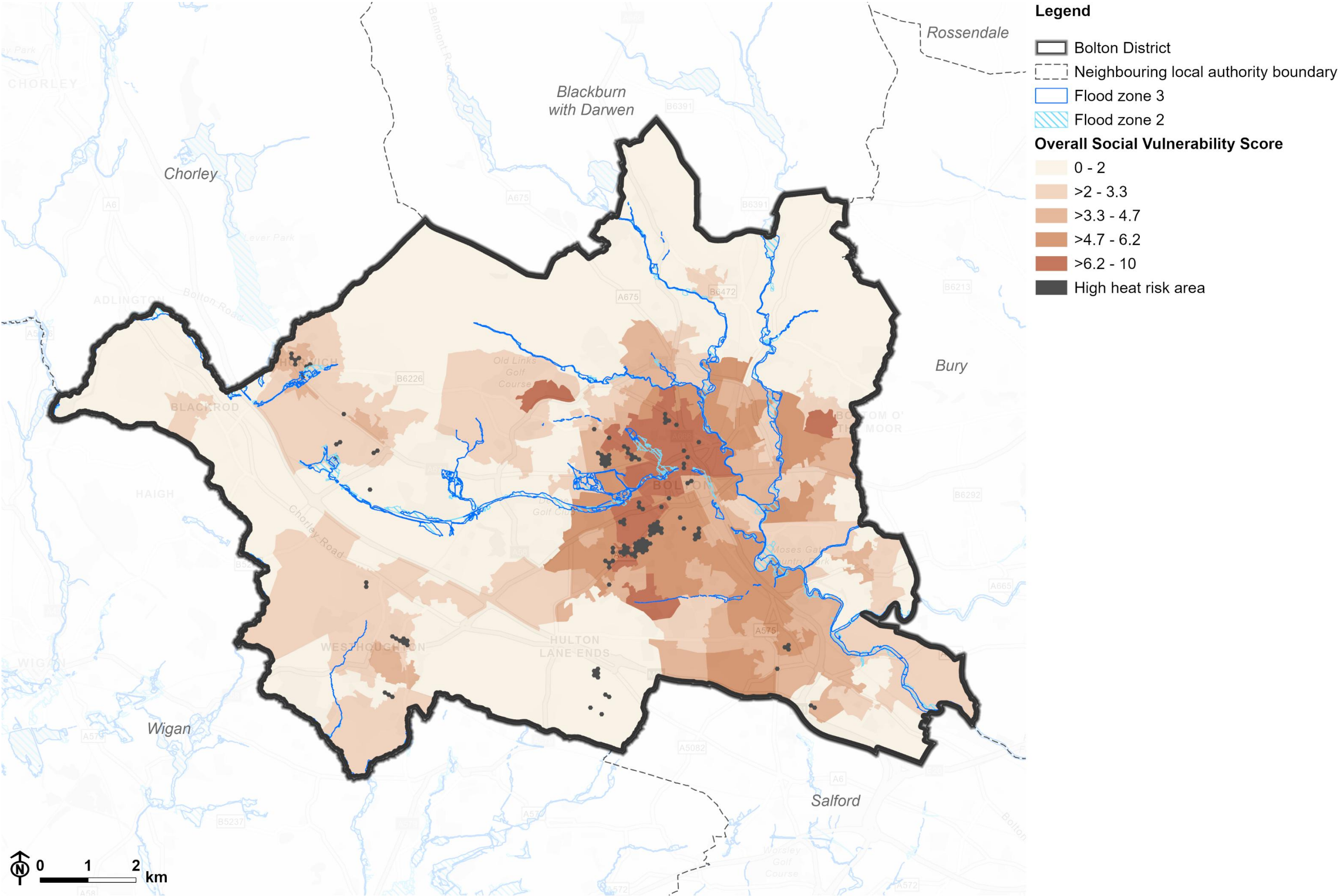
- **Carbon neutrality commitment:** is ahead of national targets and provides strategic support for GI investment for climate resilience.
- **Expanding woodland cover:** strategically, to connect existing stands, making use of grant funding opportunities, joint public and third-sector initiatives, and new development site commitments.
- **Improved walking, wheeling and cycling routes:** GI can encourage low-carbon travel methods, including between key GI and regeneration sites.

- **Use of data to prioritise:** using tools like the Tree Equity Score Map, urban tree planting can target heat-vulnerable and underserved communities.
- **Greening of streets:** in line with the GMCA SuDS Design Guide, will integrate GI within the existing and developing transport network.
- **Leveraging key partners:** particularly United Utilities, in order to co-deliver nature-based solutions at a variety of scales.

Implications for open space provision

- Open space can provide Nature-based solutions which create an environment more resilient to climate change, for example by increasing permeable surfaces and shading. Open spaces designed and managed to provide cool spaces can be important refuges during periods of hot weather. This may indicate open space provision is particularly important in and around Bolton town centre, where there is a high social vulnerability to extreme heat (**see Figure 3.10**).

Figure 3.10: Resilience to climate change in Bolton



Chapter 4

Assessment of open space provision and need

How to use this chapter

Use this chapter to understand how much open space exists in Bolton, where it is located and where there are gaps in provision. This provides the evidence for setting local standards and assessing development proposals.

The context: overview of national open space policy and guidance

National Planning Policy Framework (2024)

Current policy

4.1 The National Planning Policy Framework (NPPF) (2024) sets out the Government's planning policies for England [\[See reference 156\]](#). It includes requirements for assessing open space, highlighting the importance of incorporating open space, green infrastructure and sports provision in the development of Local Plans.

4.2 Paragraph 103 specifies that up-to-date, robust assessments of open space will be required to support planning policies. Information gained from the assessments should be used to determine open space provision needs and subsequently "plans should seek to accommodate" this need.

Changes from the draft NPPF

4.3 In late 2025 the Ministry for Housing, Communities and Local Government released a draft revision to the NPPF for public consultation [\[See reference 157\]](#). The consultation period closed in March of 2026, and it is anticipated that the finalised policy will be adopted in late 2026.

4.4 Policy HC3, Community facilities and public service infrastructure serving new development defers to national standards and best practice (Natural England's

Green Infrastructure Standards) where the development plan does not set out locally-specific greenspace standards.

Fields in Trust Standards

4.5 Fields in Trust (FiT) are a charity focussed on the protection of parks and green spaces in the UK. Over the years, FiT have developed and refined standards for the quality, quantity and accessibility of open space, most recently publishing updated standards in 2024 [See reference 158]. The standards offer benchmark quantity calculations for varying typologies of open space, including specific sub-categories of play spaces:

- Local Areas of Play (LAPs)
- Local Equipped Areas of Play (LEAPs)
- Neighbourhood Equipped Areas of Play (NEAPs)

Natural England Green Infrastructure Framework

4.6 The Natural England Green Infrastructure Framework 2023 (NEGIF) supports the Government's commitments outlined in the 25 Year Environment Plan [See reference 159]. The framework includes 15 core principles for Green Infrastructure (GI), 5 headline GI standards, a GI design guide, process journeys, case studies, an online GI mapping tool with a user guide, and a monitoring and evaluation strategy.

4.7 The framework introduces voluntary Green Infrastructure Standards designed to help local authorities align with both national and local planning policies. These standards differentiate between those intended for major new developments and those applicable at a wider, area-based scale. Most relevant to the development of the Open Space Assessment is the Accessible Greenspace Standard, which includes:

- **Size and Proximity criteria (accessibility):** The headline accessibility criteria are intended to ensure access to green and blue spaces close to home. This is defined as being within the access buffer of at least one doorstep OR local space, AND a neighbourhood space. Access buffers for different sizes of greenspace are shown in **Table 4.1** below.
- **Capacity criteria (quantity):** Local authorities have at least three hectares of publicly accessible greenspace per 1,000 population and there is no net loss or reduction in capacity of accessible greenspace per 1,000 population at an area-wide scale. Local authorities specify capacity targets for all major residential

development informed by a local accessible greenspace baseline, and taking into account local needs, opportunities and constraints. The NEGIF also provides an Urban Nature Recovery Standard which proposes local authorities “provide 1 hectare of Local Nature Reserve (LNR) per 1,000 population (for nature conservation and quiet enjoyment)”.

- **Quality criteria:** Accessible greenspace meets the Green Flag Award criteria and best practice in accessibility for all within the Sensory Trust's By All Reasonable Means: Least restrictive access to the outdoors guide.

Table 4.1: Natural England access to greenspace buffers

Hierarchy	Minimum size (hectares)	Buffer size (metres)
Doorstep	0.5	200
Local	2	300
Neighbourhood	10	1,000 (1 kilometre)
Wider Neighbourhood	20	2,000 (2 kilometres)
District	100	5,000 (5 kilometres)
Sub-regional	500	10,000 (10 kilometres)

What types of spaces do we consider as “open space”?

4.8 Prior to the adoption of the first NPPF in 2012, Planning Policy Guidance Notes and Planning Policy Statements set out national policy and were material considerations in planning decisions. Planning Policy Guidance 17: Planning for open space, sport and recreation (PPG17) (2002) and its companion guide established foundational guidance for open space in the UK which still influence policy today [\[See reference 160\]](#) [\[See reference 161\]](#).

4.9 The document sets out a framework for assessment of existing open space as well as needs and opportunities. It also states that local authorities should establish local open space standards which include quantitative elements, a qualitative component and accessibility.

4.10 PPG17 defines standard typologies for open spaces of public value which were used in the assessment of open space provision in Bolton. The following sections set out descriptions of each typology and sets out how these are being dealt with in this study.

4.11 While not strictly defined in the guidance, for the purposes of this assessment, “formal” and “informal” describe the degree of design, management and prescribed use of an open space, rather than defining distinct typologies.

- Formal open spaces are typically designed and managed with a clear primary purpose and may include defined layouts, facilities or equipment (for example parks, sports pitches or equipped play areas).
- Informal open spaces are generally less structured, with minimal built features, and support a range of flexible and incidental recreational uses. They are often more loosely defined in spatial terms and may include amenity greenspace, natural or semi-natural areas, or undeveloped land.

Defining parks and gardens

4.12 The “parks and gardens” typology encompasses more formal open spaces. These areas offer spaces for a mix of formal and informal recreation, such as play provision for children and young people, outdoor sports and space for sitting. This can also include country parks.

4.13 In Bolton, the key distinguishing feature for identifying parks and gardens is the presence of play equipment. This typology is a key focus for understanding provision within the borough as these tend to incorporate the most widely used spaces.

4.14 Standards for the quantity and accessibility of parks and gardens are proposed as part of this study (see Volume 2).

Defining semi / natural greenspace

4.15 These are open spaces which are mostly made up of natural habitats such as woodland, moorland, wetland or wildflower meadows. An important function of these spaces is providing access to nature, wildlife conservation, management for biodiversity and environmental education.

4.16 The open space dataset for Bolton includes major natural and semi-natural spaces, such as open access moorland and country parks (without play). Accessible woodland areas and accessible areas around reservoirs have not been comprehensively mapped as part of this work.

4.17 Standards for the quantity and accessibility of natural and semi-natural greenspace are proposed as part of this study (see Volume 2).

Defining amenity greenspace

4.18 This typology of open space includes areas of mown grassland which often form ad hoc areas of green space close to where people live and work. They are likely to support informal use such as dog walking or resting.

4.19 Larger amenity greenspaces have been included within the dataset. However, a comprehensive check for all amenity space over 0.2 hectares has not been included as part of this work.

4.20 Standards for the quantity and accessibility of amenity greenspace are proposed as part of this study (see Volume 2).

Defining children's play areas

4.21 This typology includes equipped play facilities which provide varied opportunities for play and recreation for children of different ages. This typology also includes play and youth spaces such as Multi-Use Games Areas (MUGAs), skateparks and BMX tracks.

4.22 Equipped play has been captured in detail within the open space mapping for Bolton. Informal and youth spaces have been identified as points as part of the mapping to get a sense of provision across Bolton. A comprehensive check to ensure that all informal youth spaces are within the open space dataset has not been included as part of this work.

4.23 Standards for the quantity and accessibility of provision for children and teenagers are proposed as part of this study (see Volume 2).

Defining allotments

4.24 This typology includes food growing spaces allowing the community to produce their own produce. They are typically restricted in access to members.

4.25 Allotments in Bolton have been comprehensively mapped as part of this work, and in conjunction with officers at BMBC. The PPG17 typology is 'Allotments, community gardens and city (urban) farms'. Orchards and community growing spaces have not been included in this typology as part of this study.

4.26 Standards for the quantity and accessibility of allotments are proposed as part of this study (see Volume 2).

Defining cemeteries

4.27 This typology incorporates burial spaces and religious grounds which offer space for quiet contemplation and reflection.

4.28 The open space mapping for BMBC includes cemeteries and churchyards which make up the wider network of open spaces. However, this study does not propose standards for cemeteries and churchyards.

Defining green corridors

4.29 Green corridors are multi-functional corridors which provide traffic-free routes for active travel and wildlife habitat and corridors. They include the borough's canal and disused rail corridors.

4.30 Some green corridors, such as cycle routes, have been included within the open space mapping. However, they have not been mapped in detail and as a result no analysis on this type of open space individually has been included as part of this study.

Defining civic spaces

4.31 Civic spaces are areas of open space which are generally more closely integrated into the built environment than other typologies. They are typically located in urban areas, around key community hubs and areas of activity and provide landscaped areas to meet, sit, benefit from shade and experience areas of quiet within the built environment. These spaces generally have less extensive areas of vegetation (such as areas of grass) and include a greater focus on hard landscaping with trees and other planting incorporated.

4.32 Some civic spaces within the centre of Bolton town have been identified as part of the open space mapping. However, they have not been mapped in great detail and as a result no analysis on this type of open space individually has been included as part of this study.

Coverage of outdoor sports facilities

4.33 The PPG17 guidance identifies outdoor sports facilities as a separate typology. These spaces have not been included in the open space mapping for Bolton. Where playing pitches are publicly accessible and can be used for informal recreation as well as formal sports, these spaces have been included within the "parks and

gardens” or “amenity greenspace” typology. A separate Playing Pitch Strategy is typically produced as an evidence base for the needs of outdoor sports provision. Bolton have set out the intent to develop a Facilities and Playing Pitch Strategy in their Active Lives Strategy for Bolton (2023-2028) [See reference 162]. At time of publishing, a dedicated Playing Pitch Strategy for Bolton had recently been commissioned.

Where is open space most needed in Bolton?

4.34 A summary of local “need” for open space is set out within **Chapter 2** of this study (Theme 2: Active and Healthy Bolton).

How much open space does Bolton currently have? (Quantity assessment)

4.35 The quantitative analysis of open space provision carried out for this study considers the area (in hectares) of open space compared to the size of the population:

- Firstly, the total area (in hectares) of open space for each typology is presented.
- These areas are then converted into quantities by calculating the area compared to population. Current population figures used in this study are based on 2021 census data.

4.36 This quantitative analysis has been used to test Bolton’s current provision against national recommended standards for accessible greenspace (AGS), provision for children and young people and allotments.

Accessible greenspace (AGS) is a subset of open space that focuses on the types of open space that people can use for everyday recreation and contact with nature, such as parks and natural greenspaces. It provides a consistent way of measuring access to usable greenspace, allowing comparison with national best practice standards and helping to identify where provision is lacking. In this study, AGS comprises the total area of:

- Parks and gardens
- Semi/natural greenspace, and
- Amenity greenspace.

4.37 The provision of AGS in each of the seven identified sub-areas of BMBC has also been analysed to see how provision in different parts of the Borough compares to the recommended standards across the area.

4.38 The open space dataset used for this analysis is shown in **Figure 3.4** (in Chapter 3).

Current provision of open space

4.39 Overall, the analysis shows that open space in Bolton covers nearly 1,500 hectares, made up of 298 separate sites. In Bolton, there is an estimated 4.6 hectares of all open space per 1,000 people.

4.40 **Table 4.2** outlines the quantity (area in hectares) and number of individual sites (all numbers rounded to 1 decimal point).

Table 4.2: Current provision of open space

Typology	Number of sites	Area in hectares (rounded to 1 decimal point)	Quantity (hectares per 1,000 people – rounded to 2 decimal points)
Parks and Gardens	66	242.9	0.78
Semi / Natural Greenspace	30	927.1	2.99
Amenity Greenspace	83	121.5	0.39
Children's Play Areas	29	6.4	0.02
Allotments	32	27.7	0.09
Cemeteries	58	94.3	0.30
All typologies of open space	298	1,419.9	4.57

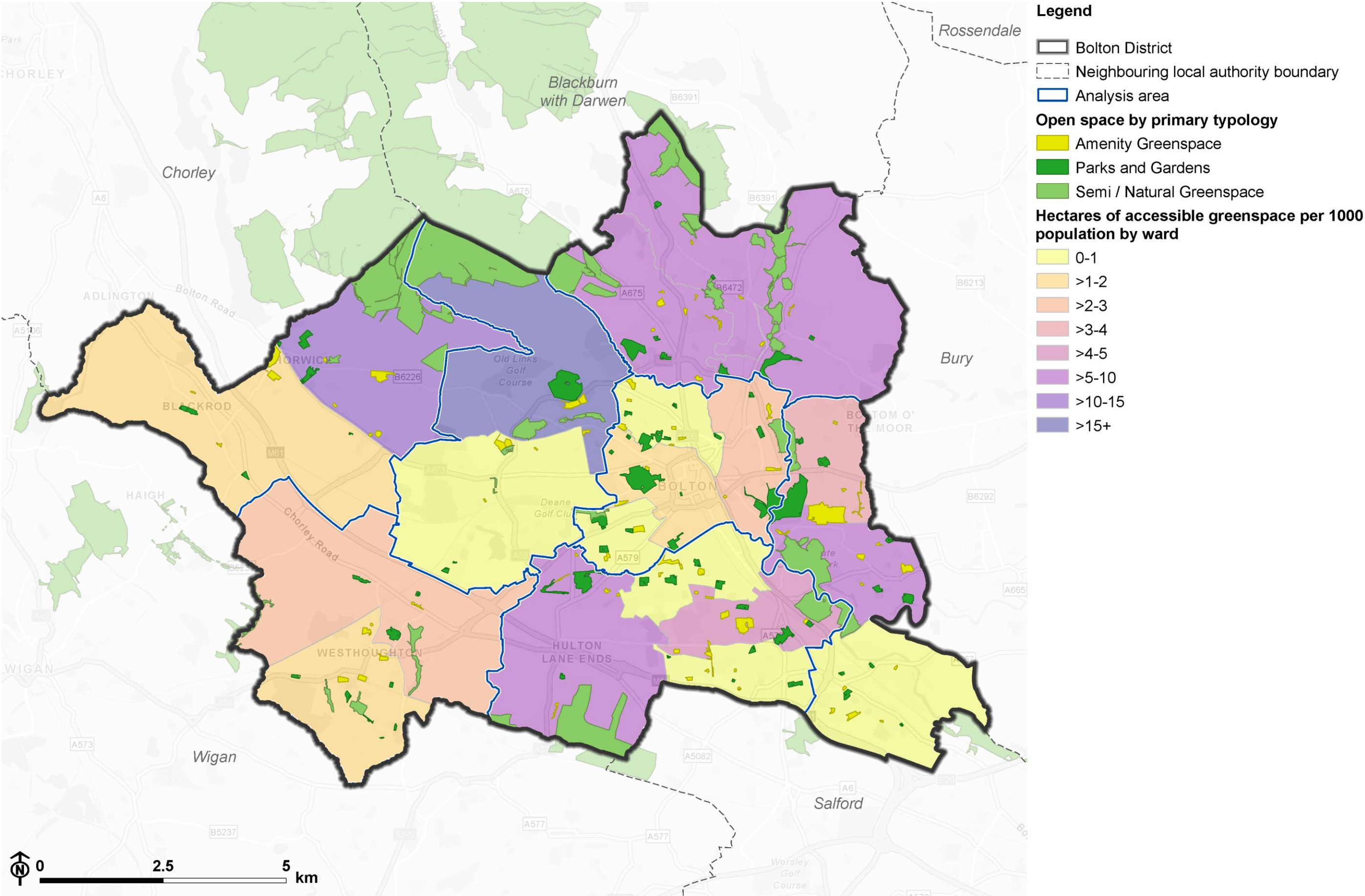
4.41 In order to assess the current provision in each Sub-Area, and assist in the identification of local standards, reference has been made to established national standards. Open space quantity figures per 1,000 population are shown for all typologies. However, the analysis underlying recommended standards (set out in **Volume 2**) is focused on provision of “accessible greenspace” (AGS), provision for children and young people and allotments.

4.42 When we look at AGS specifically, we find:

- A total provision of **1,291.5 hectares** of AGS across Bolton.
- Current provision of **4.16 hectares per 1,000 population** across Bolton.

4.43 This study also analyses AGS provision at a “sub-area” level to identify local variations in supply and need, ensuring that Borough-wide averages do not mask inequalities in access and provision. The provision of AGS within each ward is shown in **Figure 4.2** and **Appendix B** further analyses provision within each of seven identified ‘sub-areas’ (groupings of individual wards).

Figure 4.1: Quantity of accessible greenspace (hectares per 1,000) in each Ward



Created by LUC - 16544_001_Open_Space_Figures/005_r0_DRAFT_Quantity_Accessible_Greenspace 03/06/2026
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How accessible is Bolton's open space?

4.44 Accessibility of open space refers to far how people have to travel to reach different types of open space. In addition to assessing this based on open space typology, different access catchments are set for different sizes of open space. It is important to note that the accessibility standards have been mapped here as straight-line buffers. They do not take account of on-the-ground conditions and potential barriers such as motorways, rivers or canals. Nor do they consider factors which impact inclusive access for different groups of people, such as the presence of busy roads or stepped access.

4.45 Access distances used for the analysis have been based on the recommended distances set out in the NEGIF and by Fields in Trust as detailed below. These are summarised in **Table 4.3** at the end of the chapter.

Access to Accessible Greenspace

4.46 Access catchments for Accessible Greenspace (AGS) have been applied based on the size-proximity criteria set out in the NEGIF.

4.47 The NEGIF focusses on the importance of providing greenspace close to home (i.e. within a 15 minute walking distance, or 1km distance). The "Greenspace Close to Home" Access target states that all residents should lie within:

- 1 kilometre of a "neighbourhood"-scale AGS (the "no more than 15-minute" standard); and
- Either 300 metres of a "local" AGS OR 200m of a "doorstep" AGS ("no more than 5 minute" standard).

4.48 The access catchments are based on minimum size, but the catchments can "stack". For example, a greenspace that is 11 hectares in size would have an access catchment of 1,000 metres (neighbourhood hierarchy). However, within 300m it would also act as a local greenspace. As the "close to home" recommendations set the precedent for 'either or' rather than 'and', the access catchments for 100 metres of an incidental accessible greenspace, and 200 metres of a doorstep accessible greenspace have only been applied to open spaces below the next level of the hierarchy.

4.49 **Figure 4.3** and **4.4** shows the overall straight-line access catchments for accessible greenspaces in Bolton. Overall, there is better access to larger accessible

greenspaces. Sub-regional accessible greenspace is provided by moorland in the north-west (which extends beyond the borough boundary). The 10 kilometre buffer associated with this covers the whole of Bolton (with the exception of the south eastern corner southeast of Kearsley). This level of access has not been shown in the mapping.

4.50 The whole borough is covered by at least one of the wider neighbourhood or district access catchments. However, this is not the case the incidental, doorstep, local and neighbourhood catchments. More than half of the Borough does not have access to accessible greenspace within a 5 minute walk (300 metres or less). In the west of the Borough, there is no access to accessible greenspace of at least 10 hectares within a 15 minute walk (1,000 metres).

Figure 4.2: Access to greenspace “close to home”

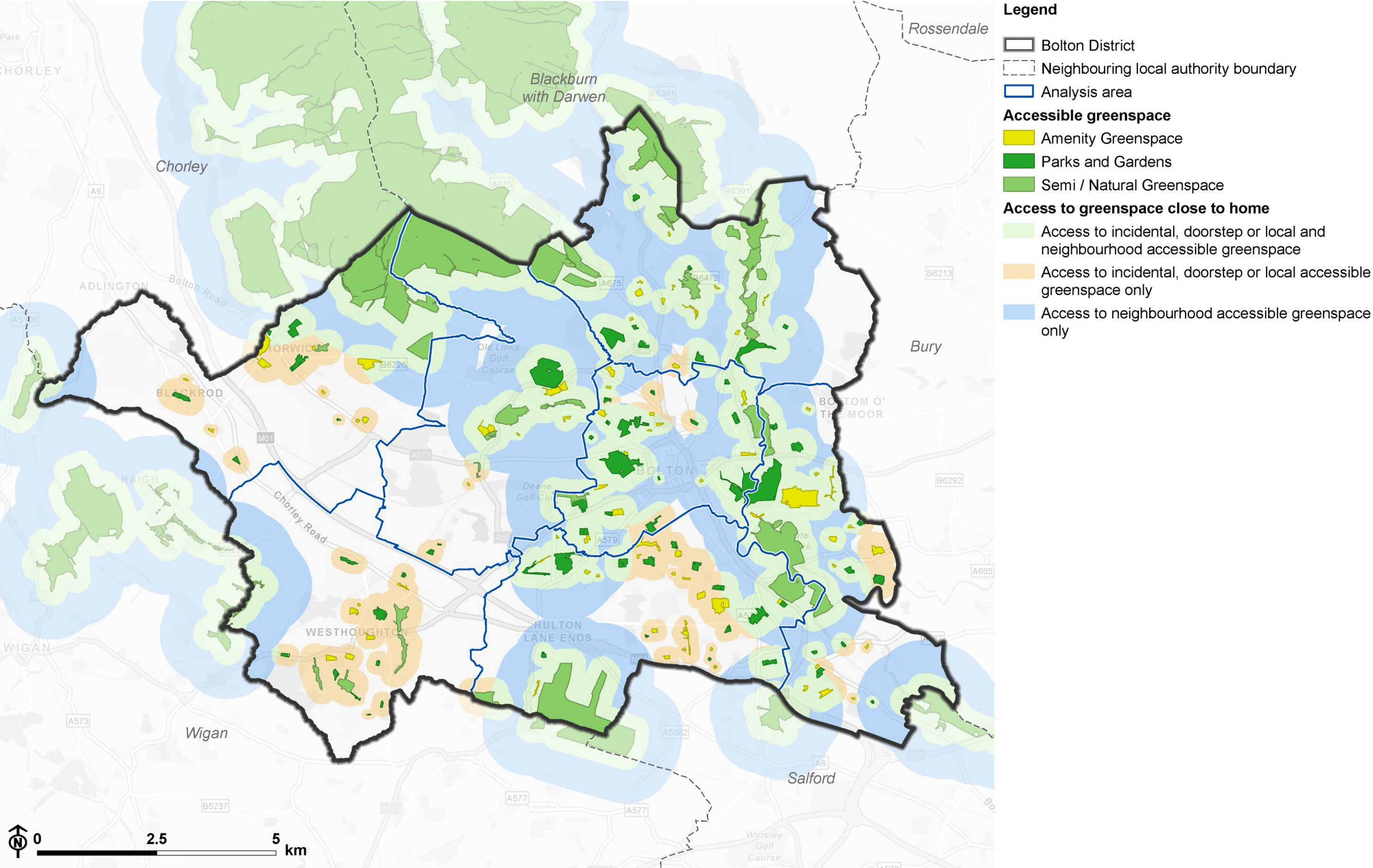
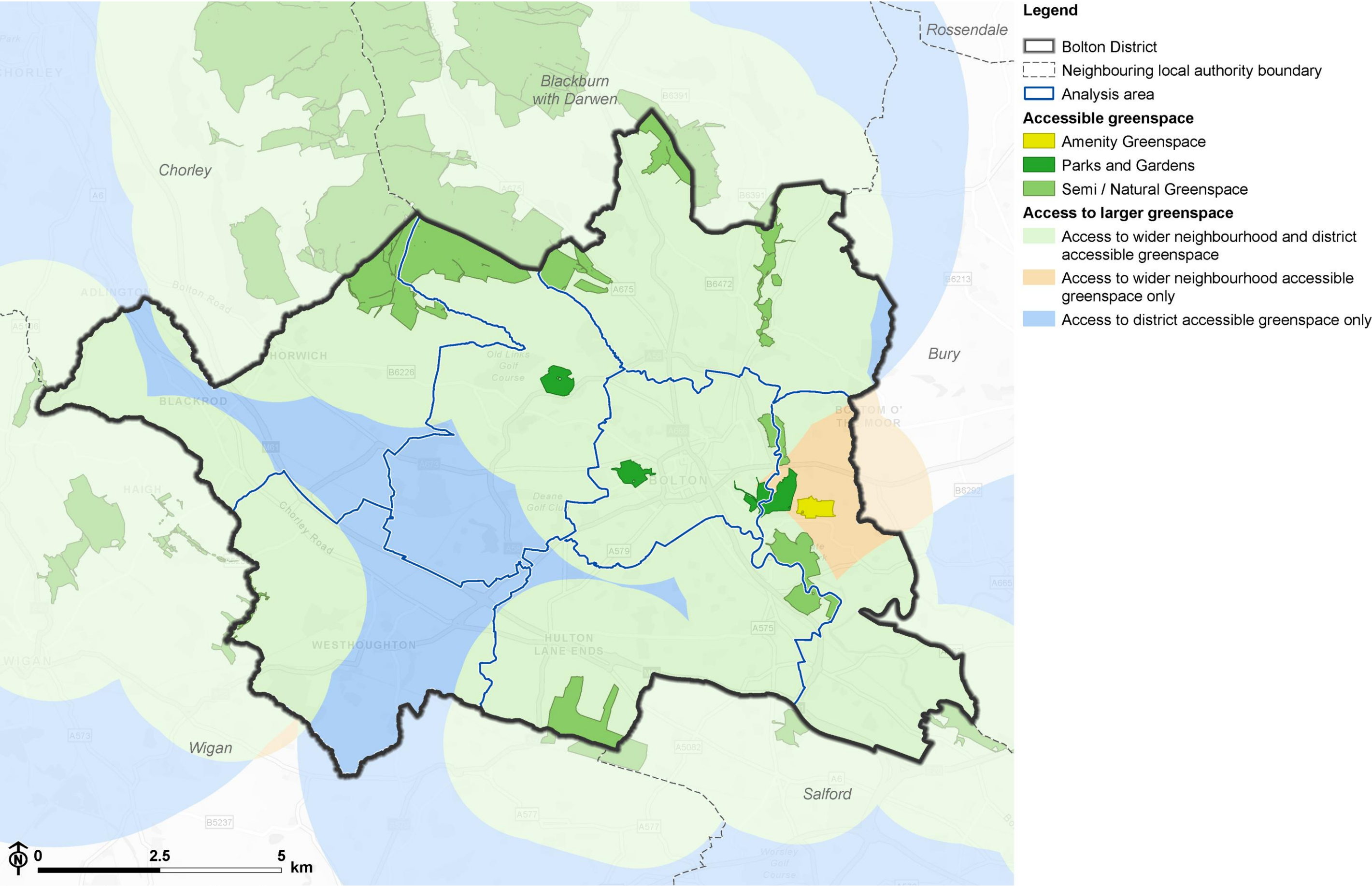


Figure 4.3: Access to larger accessible greenspace



Access to children's play areas

4.51 Fields in Trust access standards were applied for children's play areas with the following buffers applied:

- 100m buffer for LAPs;
- 400m buffer for LEAPs; and
- 1,000m buffer for NEAPs.

4.52 In Bolton, information is not collected on whether sites are LAPs, LEAPs or NEAPs. As such, a “best fit” approach has been applied based on the size of the children play areas and FiT recommendations.

- LAPs have been assigned to sites at least 100 square metres and less than 400 square metres.
- LEAPs have been assigned to sites at least 400 square metres and less than 1,000 square metres.
- NEAPs have been assigned to sites at least 1,000 square metres.

4.53 These buffers have also been “stacked”, so a children's play area of 1,000 square metre will have the 1,000 metre, 400 metre and 100 metre access catchments applied. These are illustrated in **Figure 4.5**.

4.54 Whilst there are notable gaps in access to any children's play areas, these are mostly within more rural areas. Residential areas with gaps in access include parts of Blackrod, Lostock, Dunscar and Bradshaw.

Access to allotments

4.55 All allotments have been considered in the accessibility analysis. A 1,200 metre buffer (1.2 kilometres) has been applied to allotments. This reflects a distance similar to that of the neighbourhood accessible greenspace. The reflects approximately a 15-20 minute walk. Access to allotments is shown in **Figure 4.6**.

4.56 Access to allotments is available across just under half of the Borough's area. Access is better within urban areas, including most of the urban area of Bolton.

Figure 4.4: Access to children's play areas

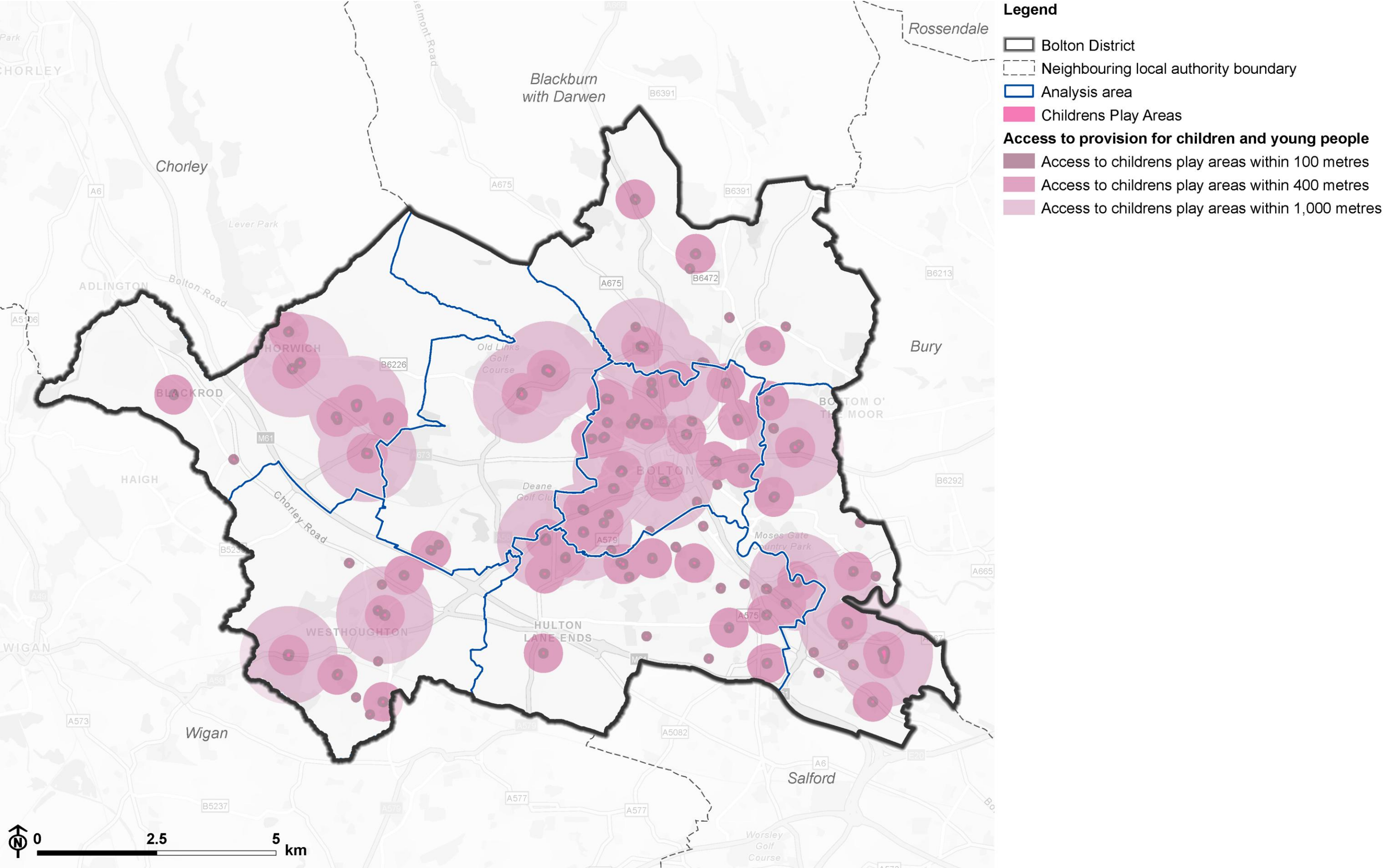
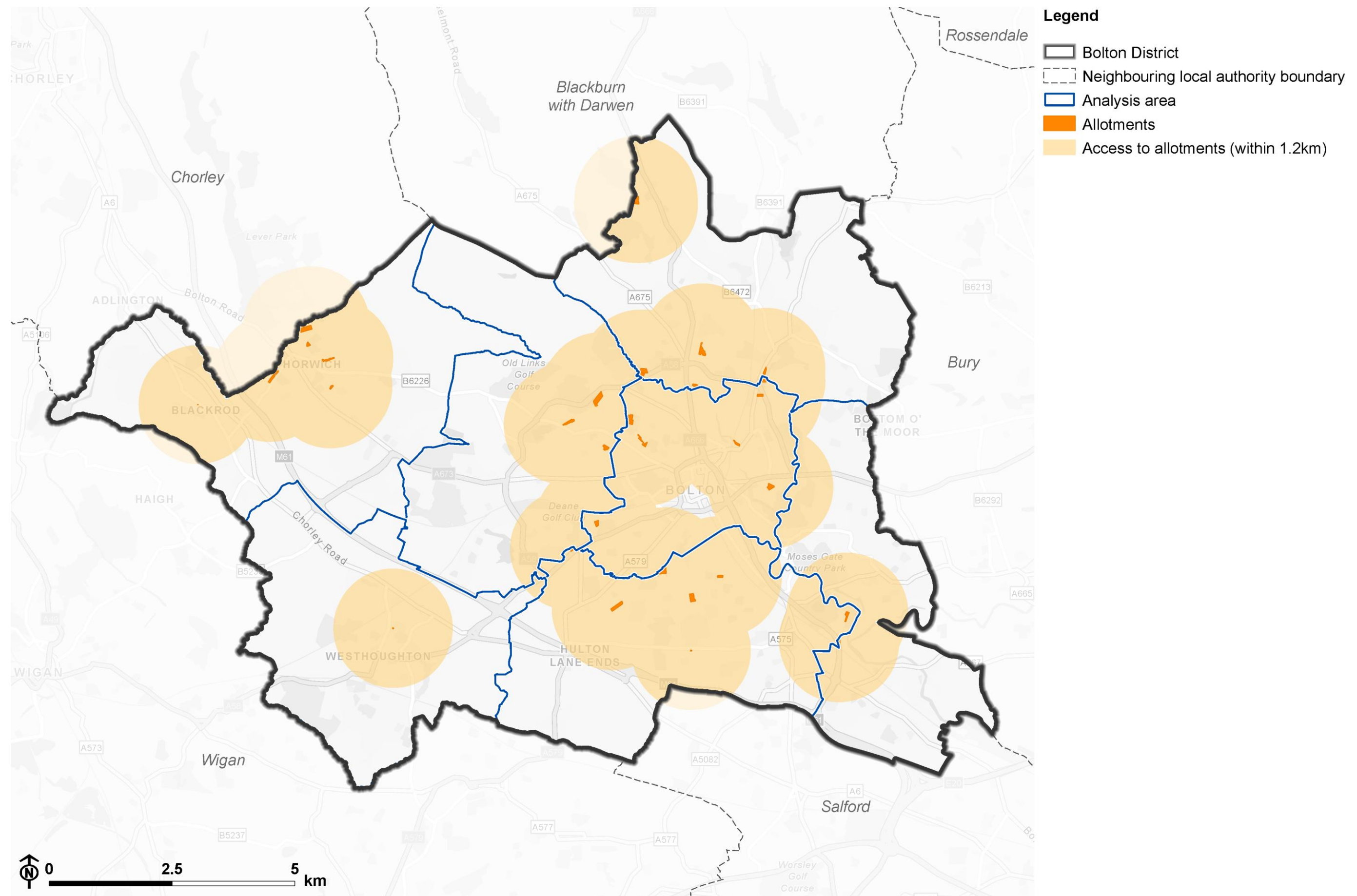


Figure 4.5: Access to allotments



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Overview of access standards for open space

Table 4.3: Access catchments and coverage look-up table

Typology	Minimum size (hectares)	Access catchment size	% area covered by access catchment
Accessible greenspace – incidental	0.2 – 0.5	100 metres	2%
Accessible greenspace – doorstep	0.5 – 2	200 metres	11%
Accessible greenspace – local	2 +	300 metres	37%
Accessible greenspace – neighbourhood	10 +	1,000 metres	61%
Accessible greenspace – wider neighbourhood	20 +	2 kilometres	81%
Accessible greenspace - district	100 +	5 kilometres	97%
Accessible greenspace – subregional	500 +	10 kilometres	98%
Provision for children and teenagers – LAP	0.01 +	100 metres	2%
Provision for children and teenagers – LEAP	0.04 +	400 metres	20%
Provision for children and teenagers – NEAP	0.1 +	1,000 metres	32%

Typology	Minimum size (hectares)	Access catchment size	% area covered by access catchment
Allotments	Any size	1,200 metres	46%

Chapter 5

Key assets and priorities for GI and open space in Bolton

How to use this chapter

Use this chapter to identify Bolton's key GI assets and areas of need. It uses GIS mapping to highlight priority locations for intervention and supports spatial targeting of policy and investment.

5.1 GIS data layers used for this study were combined to produce two combined datasets which illustrate the following:

Valued GI assets

5.2 Features and areas of green infrastructure currently present within BMBC that provide key ecosystem services, biodiversity value, recreational opportunities or placemaking/economic value and as such are prioritised for conservation and enhancement (shown on **Figure 5.1**).

GI needs

5.3 Identified areas within BMBC showing deficits in green infrastructure provision or function, representing priority locations for investment, restoration, or new GI interventions to improve ecological connectivity, climate resilience and community wellbeing, in line with this study's five GI themes (shown on **Figure 5.2**).

5.4 By using these mapping layers together, we can identify areas where there is an opportunity to deliver multifunctional GI enhancements in one place i.e. locations where there are overlapping needs for GI functions. As an example, this might help to identify an area of river corridor where there is evident flood risk, high socio-economic deprivation, regeneration needs, low canopy cover and the identified need for habitat expansion or biodiversity.

5.5 **Appendix F** provides a full method for how the mapping of Valued GI Assets and GI Needs was carried out.

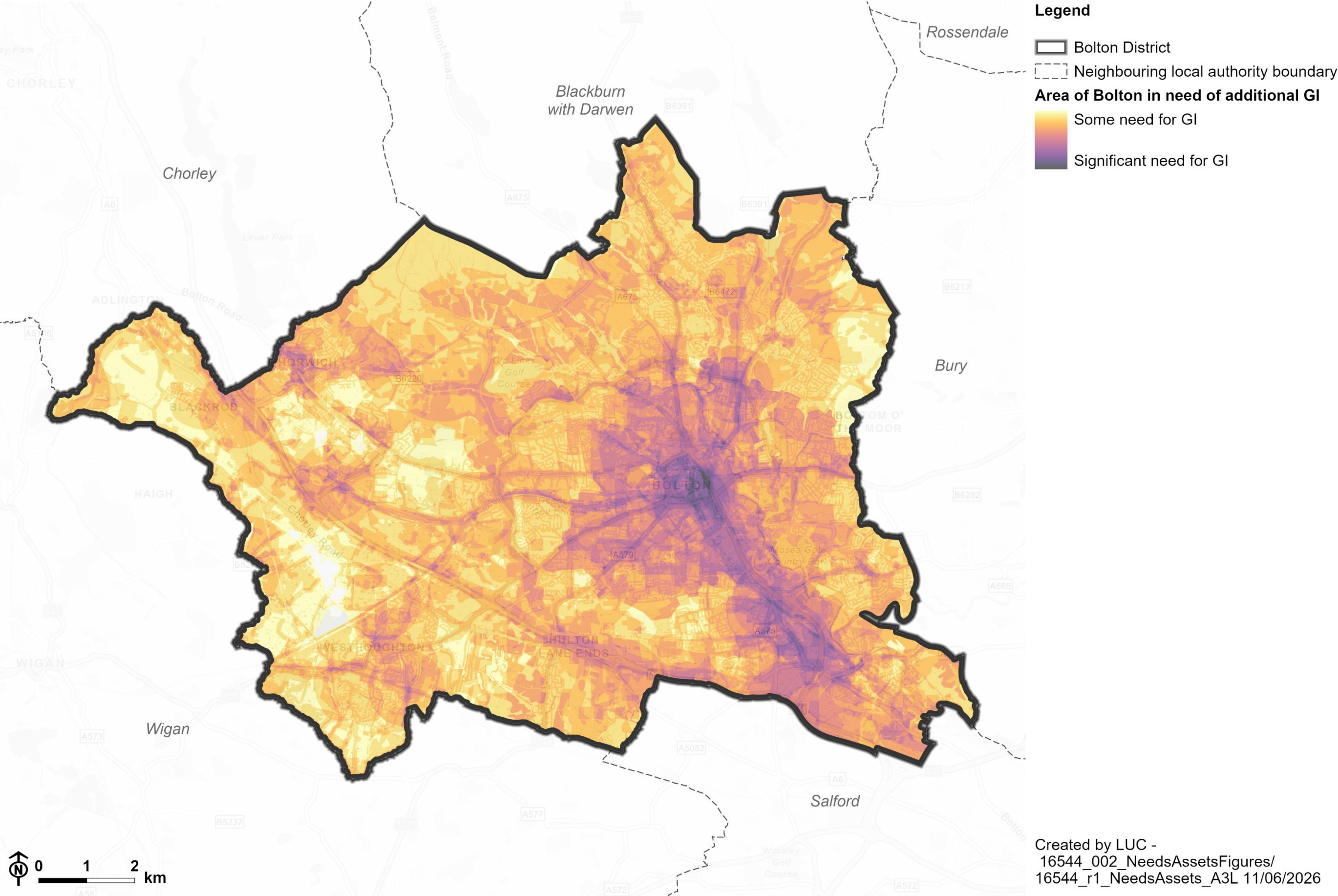
Legend

- Bolton District
- Neighbouring local authority boundary
- Area containing valued GI assets

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16544_002_NeedsAssetsFigures/
16544_r1_NeedsAssets_A3L 11/06/2026

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Figure 5.2: Mapping of GI needs across Bolton



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Chapter 6

What does this mean for key growth areas?

How to use this chapter

Use this chapter to understand how the findings of the study apply to selected future growth areas within Bolton. It sets out (at a strategic level) the wider GI context for each development and helps ensure that new developments in these areas successfully “knit into” the wider GI and open space network and address locally defined challenges.

6.1 This chapter builds on the assessment of Bolton’s GI and open space network to explore how development in key Local Plan growth areas can deliver GI that responds to identified local needs and deficiencies.

6.2 Development proposed through Bolton’s emerging Local Plan will be focussed on the following five key growth areas:

1. Health Innovation Bolton
2. Bolton town centre
3. Middlebrook
4. Ditchers Farm

6.3 It is important that high-quality GI is delivered within and alongside all new development across the Borough, wherever growth takes place (see Volume 2 for further detail on how updated policy can help to achieve this). However, these five identified growth areas provide a valuable opportunity to consider the GI network at a more local scale in those parts of the Borough that are set to absorb the most growth.

6.4 The following five Growth Area Profiles (GAPs) set out the key characteristics, challenges and opportunities for GI within each of the main growth areas. They are intended to inform the planning and design of future development, ensuring that proposals respond positively to the local GI context and help to deliver on the priorities identified in this study. Each profile includes a GI summary map of the area, a short description of the GI context, a summary of key challenges and a summary of key opportunities.

Growth Area Profile: Health Innovation Bolton

Overview of the GI context

6.5 Geography and land use: The Health Innovation Bolton (HIB) area is located to the south of Bolton town centre and is bordered to the south by the M61, Plodder Lane and Watergate Lane. Land in this area is primarily open and much of it currently falls under Green Belt designation. It is expected that this area may be brought forward as a large mixed-use development, incorporating housing with non-residential uses related to the Royal Bolton Hospital campus and Health Innovation.

6.6 Access to open space: There are a number of “close to home” open spaces (as defined in **Chapter 4**) to the north and east of HIB, lying within established neighbourhoods - including amenity greenspaces, parks and gardens, and allotments. There is an identified existing deficit in provision of children’s play areas in this area. Roughly 600m to the south, across the M61, Cutacre Country Park is the district-scale accessible greenspace (AGS) serving the area. *See **Table 6.1** below for further information on access to different types of open space.*

6.7 Wider GI assets: The HIB area has a relatively low proportion of valued GI assets, as shown in context on **Figure 5.1**. Doe Hey Brook (a tributary of the River Croal) traverses the site, north of the existing hospital. BMBC own a small wood (approximately 1.5 hectares) around Doe Hey Brook on the eastern boundaries of HIB. In terms of larger assets, in addition to Cutacre Country Park, Hulton Park (roughly 500 metres to the south-east across the M61) is a Registered Park and Garden containing several Sites of Biological Importance (SBIs) and a Local Nature Reserve (Pretoria Pit).

6.8 Biodiversity networks: Whilst there are few existing GI assets within the immediate context and tree cover is low at approximately 13% (as per the Tree Equity Score UK data), the Greater Manchester Local Nature Recovery Strategy (LNRS) sets out that two key areas of habitat networks should be enhanced through the area. As shown on **Figure 6.1**, both are primarily composed of “areas that could become of particular importance for biodiversity” (ACBs) rather than existing assets:

- One follows Doe Hey Brook into the HIB area at its eastern extent before cutting south towards Cutacre Park.
- The second connects wooded areas to the west through the area to the western part of Cutacre Park to the south.

6.9 Connectivity/green routes: There is an existing off-road cycle and walking route (overlapping with part of NCN route 55), originating at Heywood Park and travelling 3

kilometres south, which passes through HIB at its eastern extent. The density of existing Public Rights of Way per square kilometre (as mapped by Natural England) is relatively high - approximately 2,600m - through the HIB area, primarily running north-south along hedges, fences, and rural lanes.

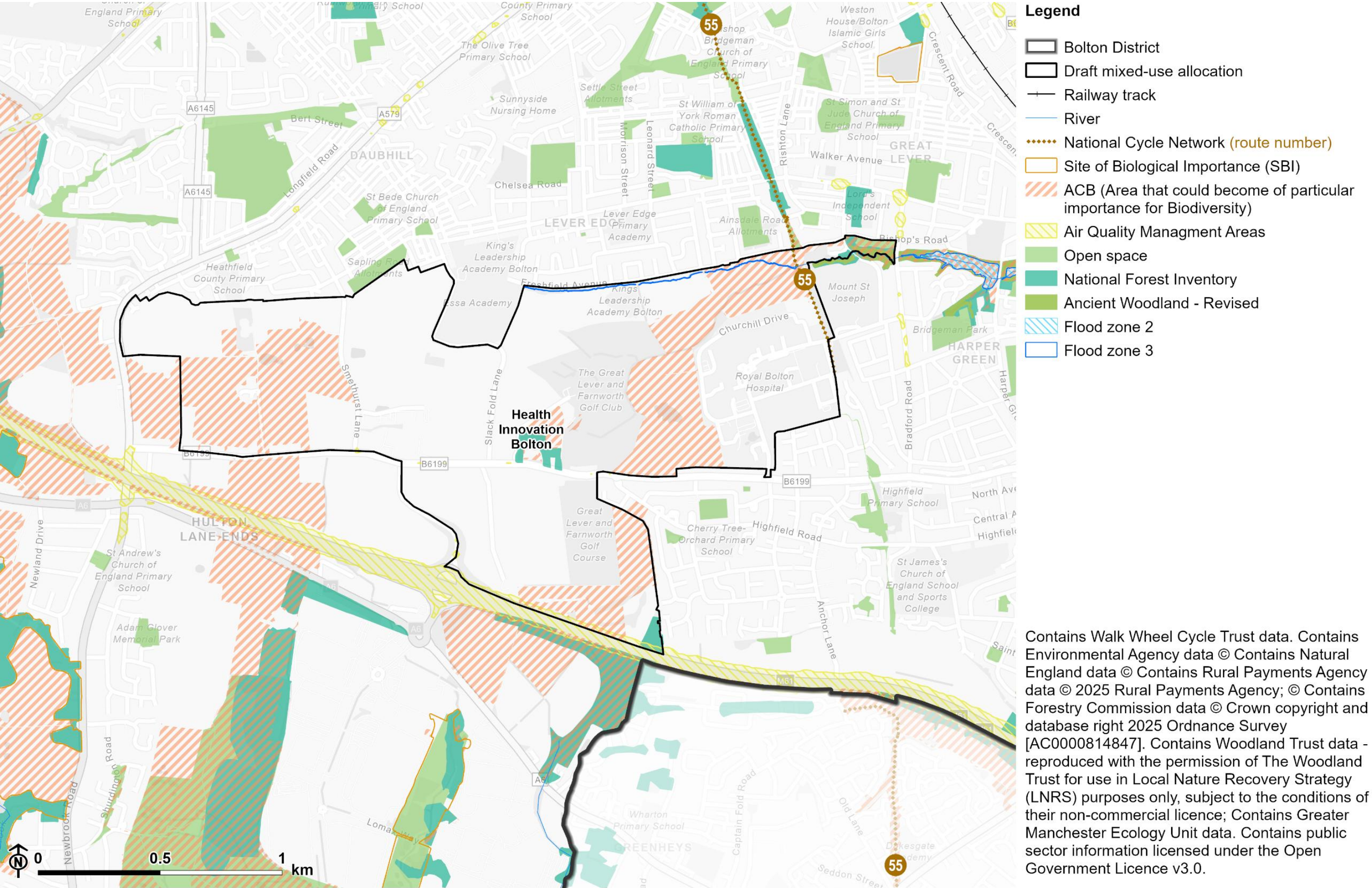
Summary of existing open space provision around HIB

6.10 Table 6.1 summarises the existing provision of open space, based on the relevant assessed sub-area as shown in **Appendix B**. The types of open spaces and established catchments for them are defined in **Chapter 4**.

Table 6.1: Open space at Health Innovation Bolton (within Farnworth, Great Lever and Hulton sub-area)

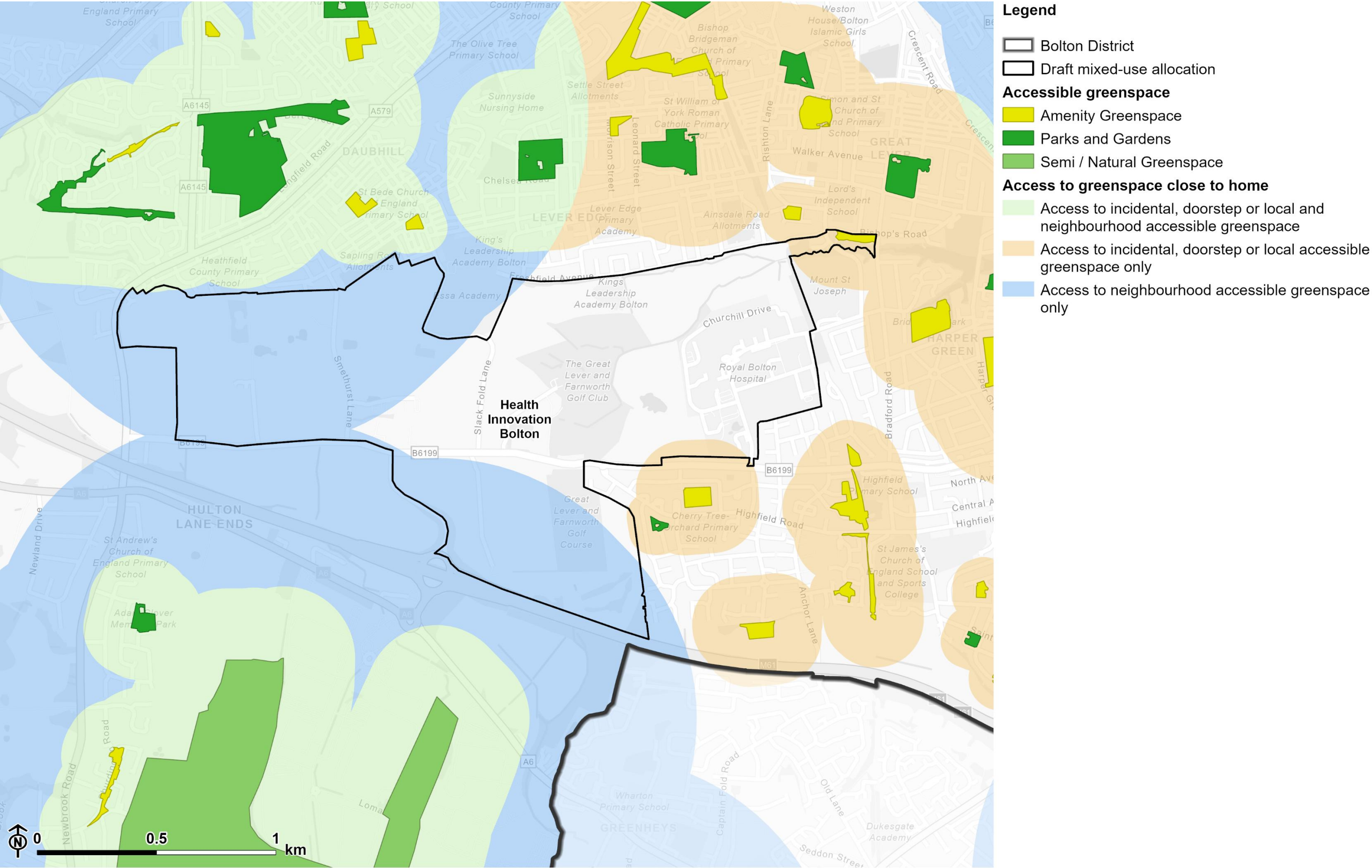
Open space type	Quantity and access
Total Accessible Greenspace (AGS)	Overall lower provision of AGS versus the rest of the Borough.
<i>“Close to home” AGS – incidental, doorstep or local, and neighbourhood</i>	Coverage is good across most of the sub-area, but there are gaps within the HIB area, particularly of incidental and doorstep greenspaces. Neighbourhood greenspaces in the area include Hulton Lane playing fields and Cutacre Country Park. However major road infrastructure creates a significant ‘severance’ effect for practically accessing these sites.
<i>“Larger greenspace” AGS – wider neighbourhood and district</i>	Sufficient coverage across the sub-area, including the HIB area.
Children’s play areas	Overall provision is consistent with Borough averages. Access across the sub-area varies, with higher prevalence of Local Equipped Areas of Play. NB. many areas which don’t currently have a settled population, including HIB, fall outside of catchments for all hierarchies of play space.
Allotments	Overall provision is consistent with Borough averages. Most areas fall within the catchment for existing allotments, including the majority of HIB.

Figure 6.1: GI context in and around Health Innovation Bolton



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Figure 6.2: Access to greenspace "close to home" in and around Health Innovation Bolton



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Key challenges

- Identified deficiency in children's play areas.
- Lack of incidental and doorstep greenspaces within the HIB area.
- M61 as a major cause of severance when accessing GI, inhibiting access to green spaces to the south (including Hulton Park, Cutacre Country Park).
- Low tree canopy cover across the area.
- Some flood risk associated with Doe Hey Brook + limited areas of surface water flood risk.
- Existing off-road active travel route identified as being insufficiently safe and welcoming, particularly to women and particularly at night.
- Limited existing biodiversity value throughout the HIB area.
- Road noise from M61 exceeding 55dB Lden (level of average day-evening-night noise, in decibels) across most of the area will need to be mitigated.

Opportunities

- **Develop a masterplan** which incorporates green infrastructure and open space as a defining design feature, delivering against appropriate standards for open space typologies.
- Align GI improvements with the LNRS, emphasising the creation of a **GI corridor** following the identified ACBs – including from Doe Hey Brook south-west to Cutacre Country Park. This multifunctional corridor should also ideally incorporate a nature-rich, sensitively designed link to the National Cycle Network (NCN) route 55 to the east.
- Provide **new local-scale open spaces** alongside development to address existing deficits including amenity greenspaces, parks and gardens, and allotments.
- Provide high quality, nature-based new **play spaces for children** to address identified deficiencies in this part of Bolton.
- Build on **existing network of public rights of way (PROW)** to create high quality, nature-rich recreational routes through the site, with high quality wayfinding and interpretation.

- It will be crucial to **address severance caused by the M61** by improving and greening crossing points, to make access to nearby GI assets both practical and attractive.
- Explore opportunities to implement **green prescribing opportunities** around the hospital campus, perhaps making use of or extending the Council-owned Doe Hey Wood (which would also protect land at risk of flooding from development).

Growth Area Profile: Bolton town centre

Overview of the GI context

6.11 Geography and land use: There are a number of allocations within Bolton town centre, with a significant focus on brownfield sites – key among them being Crompton Place, Westpoint and the Trinity Quarter. This area is seen within the Local Plan as a key focus of growth, helping to bring high quality urban living to the town centre.

6.12 Access to open space: Bolton town centre has poor access to “close to home”, including incidental, doorstep and local-scale accessible greenspaces as defined in **Chapter 4**. There is sufficient coverage of wider neighbourhood and district-scale greenspace, driven by Queen’s Park - a park and Conservation Area located west of the town centre. However, limited pedestrian links existing connecting the town centre with the Park. Nearby existing open spaces include Victoria Square, the newly delivered Elizabeth Park, Bolton Skatepark, and churchyards at St. Peter’s Church and the RCCG Breakthrough Church. *See **Table 6.2** below for further information on access to different types of open space.*

6.13 Wider GI assets: Overall, Bolton town centre has significant need for additional GI as the urban realm transforms, as identified on **Figure 5.2**. There are very few existing GI assets in the town centre, and minimal identified biodiversity value. The River Croal runs through the town centre, although it is heavily culverted. The town centre has extremely high impermeable surface cover, as high as 99% in some areas (as mapped by Natural England’s “Greenness Grid”). The town centre also suffers from low tree canopy cover – making residents and visitors vulnerable to urban heating risk. Bolton town centre is adjacent to Conservation Areas – which contribute significantly to the sense of place and wider placemaking potential.

6.14 Biodiversity networks: The Greater Manchester LNRS identifies only minimal existing or potential future networks within Bolton town centre. Leverhulme Park lies approximately 2 kilometres to the east - as part of a series of GI networks running north-south along river corridors through Bolton. The LNRS identifies a small section of the River Croal east and south of the town centre which should form an important part of the local nature recovery network.

6.15 Connectivity/green routes: Identified cycle routes on the outskirts are primarily on-road routes with light segregation, although there is a segregated cycle lane connecting Bolton train station with Moses Gate to the south. The majority of roads are publicly accessible and have associated pavements, and so there is a very low density of defined Public Rights of Way (approximately 200m per square kilometre,

as mapped by Natural England) within the town centre. However, the A666 forms a strong boundary east of town centre which is a barrier to accessing the GI assets and networks beyond through walking, wheeling or cycling.

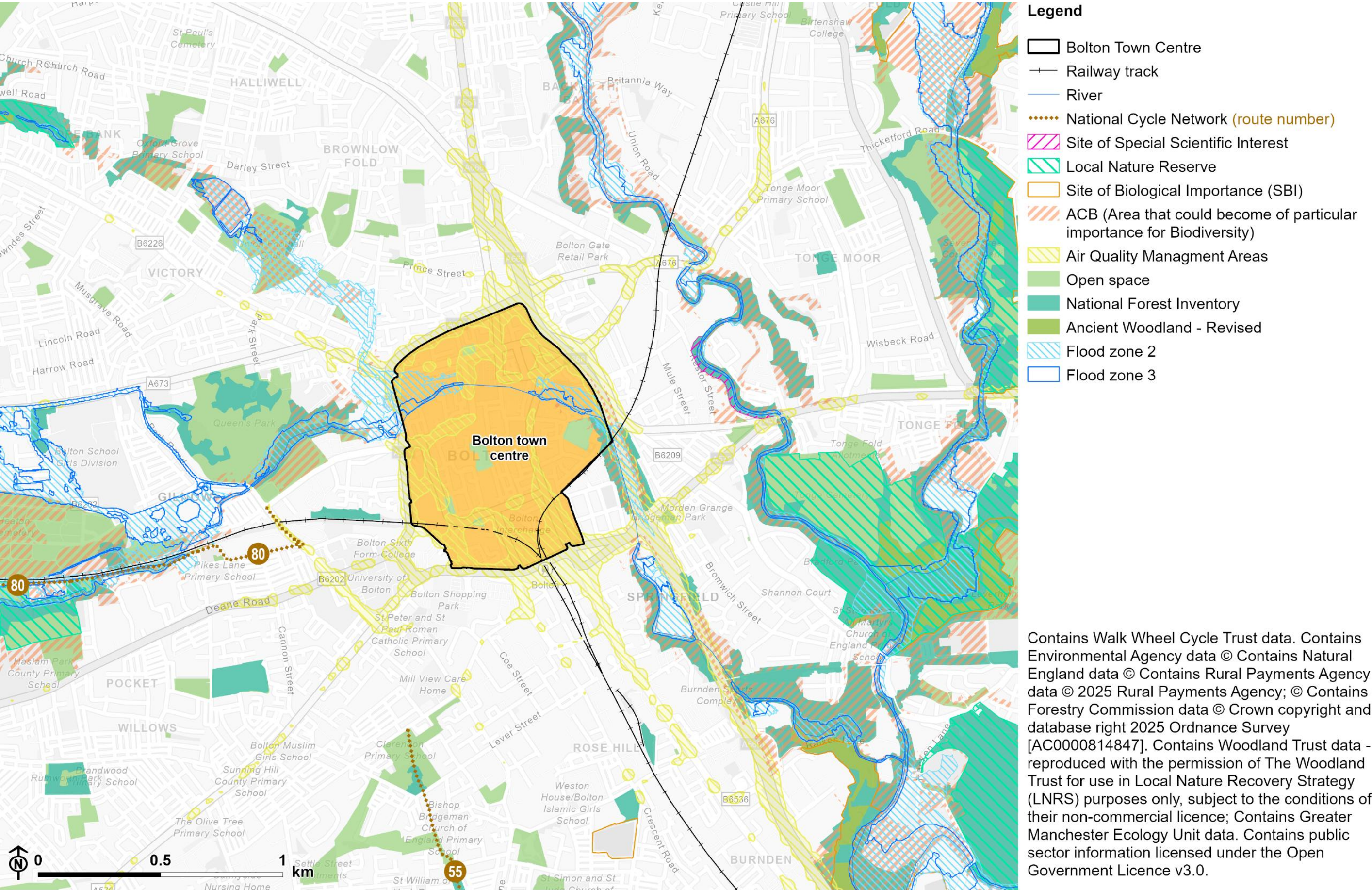
Summary of existing open space provision

6.16 Table 6.2 summarises the existing provision of open space, based on the relevant assessed sub-area as shown in **Appendix B**. The types of open spaces and established catchments for them are defined in **Chapter 4**.

Table 6.2: Open space within Bolton town centre (within Central and Inner Bolton sub-area)

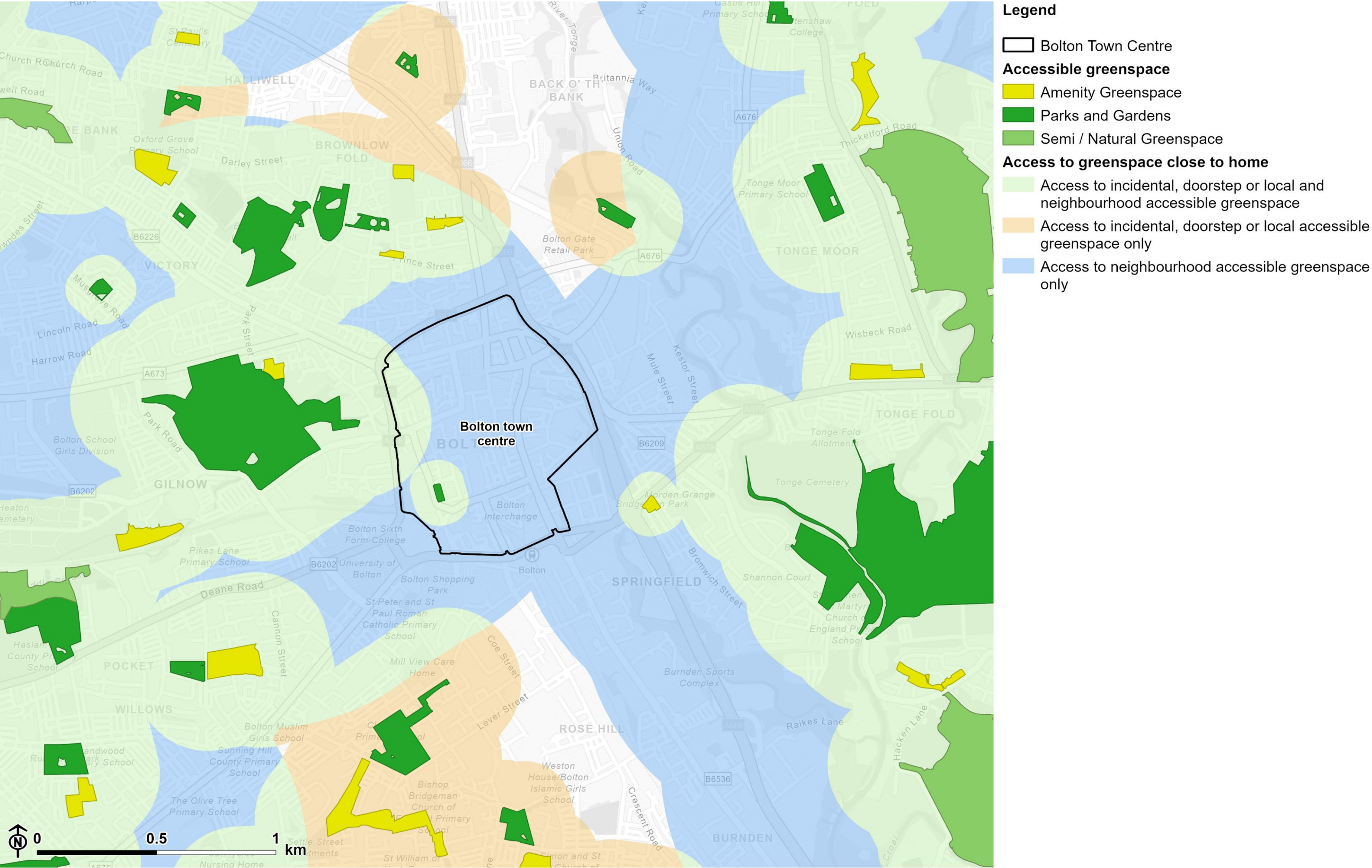
Open space type	Quantity and access
Total accessible greenspace (AGS)	Overall significantly lower provision of AGS versus the rest of the Borough.
<i>“Close to home” AGS – incidental, doorstep or local, and neighbourhood</i>	Coverage along the edges of the sub-area, but significant gaps within heart of the town centre of incidental, doorstep and local greenspaces. Queen’s Park is the “neighbourhood” greenspace serving the area.
<i>“Larger greenspace” AGS – wider neighbourhood and district</i>	Sufficient coverage across the sub-area, including Bolton town centre.
Children’s play areas	Overall provision is consistent with Borough averages. Access is generally good across the sub-area, primarily through the provision of Neighbourhood Equipped Areas of Play.
Allotments	Overall provision is consistent with Borough averages. Most areas fall within the catchment for existing allotments, with the exception of the south-western part of the town centre.

Figure 6.3: GI context in and around Bolton Town Centre



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Figure 6.4: Access to greenspace "close to home" in and around Bolton Town Centre



Key challenges

- **Very high levels of impermeable surfaces** limit the ability of the area to deliver key GI functions, including urban cooling, surface water management, biodiversity and opportunities for everyday contact with nature.
- Very limited tree canopy cover, with **low overall provision of green infrastructure assets** and associated biodiversity value.
- **Flood risk** associated with the River Croal, alongside areas of surface water flooding within the town centre.
- High social vulnerability to climate-related risks, including **significant areas of elevated heat exposure** across the town centre.
- **Road traffic noise** exceeding 55 dB (Lden) in some locations, which will require mitigation through design, layout and GI provision.

Opportunities

- **Secure urban greening within new development**, prioritising tree planting and the greening of streets, public realm and Conservation Areas, with a focus on priority areas identified through GIS analysis.
- Deliver **SuDS-led schemes** that limit the extent of manmade surfaces and **prioritise permeable surfaces** wherever possible.
- Promote the **re-naturalisation and enhancement of the River Croal**, using adjacent development to improve flood management, biodiversity and recreational value.
- Deliver **accessible greenspace as part of all new development**, addressing existing deficits and meeting local open space standards, particularly in areas of greatest need.
- **Integrate greening along key movement corridors**, including active travel routes linking the town centre to public transport hubs, Queen's Park, Leverhulme Park and the wider GI network.
- **Address severance caused by major road infrastructure**, improving safe and attractive walking and cycling connections to nearby green spaces and between key destinations.

Growth Area Profile: Middlebrook

Overview of the GI context

6.17 Geography and land use: Middlebrook is located approximately 6 kilometres west of Bolton and is a suburb with a dense clustering of residential and commercial uses, including business parks, a large retail centre and the Toughsheet Community Stadium. The identified key growth site is a brownfield site on an existing car park adjacent to the stadium.

6.18 Access to open space: Middlebrook generally has poor access to open space on the “close to home” and “wider neighbourhood” scales (as defined in **Chapter 4**). However the existence of Haigh Country Park (Wigan), Lever Country Park (Blackburn with Darwen), and the open access land at Belmont (all lying within 5 kilometres of the area) means that provision of “district-scale” accessible green space is sufficient. There are children’s play areas within surrounding neighbourhoods with catchments that cover the potential growth area, but it is possible they will not be sufficient to meet demand. The closest allotment is in south Horwich. It should be noted that the nearby Horwich Loco Works should bring forward a number of open spaces alongside development and that these should be considered within the context of this growth area as and when it comes forward. See **Table 6.3** below for further information on access to different types of open space.

6.19 Wider GI assets: Middlebrook’s urban core has a very high percentage of impermeable surfaces, as high as 95% (as mapped in the Natural England Greenness Grid), and low tree cover (as mapped by Tree Equity Score UK). The “Middle Brook” that gives the area its name crosses through the south west – and is identified as having “moderate” ecological status by the Water Framework Directive. The Red Moss Site of Special Scientific Interest (SSSI) is located just north-west of the growth area, with an area of woodland in the intervening land.

6.20 Biodiversity networks: Red Moss is recognised in the Greater Manchester LNRS for its biodiversity value. The woodland and much of the surrounding area is identified as areas that could become of particular importance for biodiversity (ACBS) as part of planned future networks south-west towards Borsdane Wood, south-east towards Lostock, and north-west towards Adlington. The full proposed LNRS networks are mapped on **Figure 3.3** in **Chapter 3**.

6.21 Connectivity/green routes: The area is served by a number of bus routes to Leigh, Horwich and Chorley Hospital and Horwich Parkway train station is located to the south. There is a very high density of existing Public Rights of Way here (approximately 3,900m per square kilometre, as mapped by Natural England), which

circumvent Red Moss SSSI to the north-west and south-west with crossings of the railway and M61. The “Middlebrook Way” (also known as NCN route 80) terminates 500m east of the growth area and provides access by foot or bike into Bolton town centre.

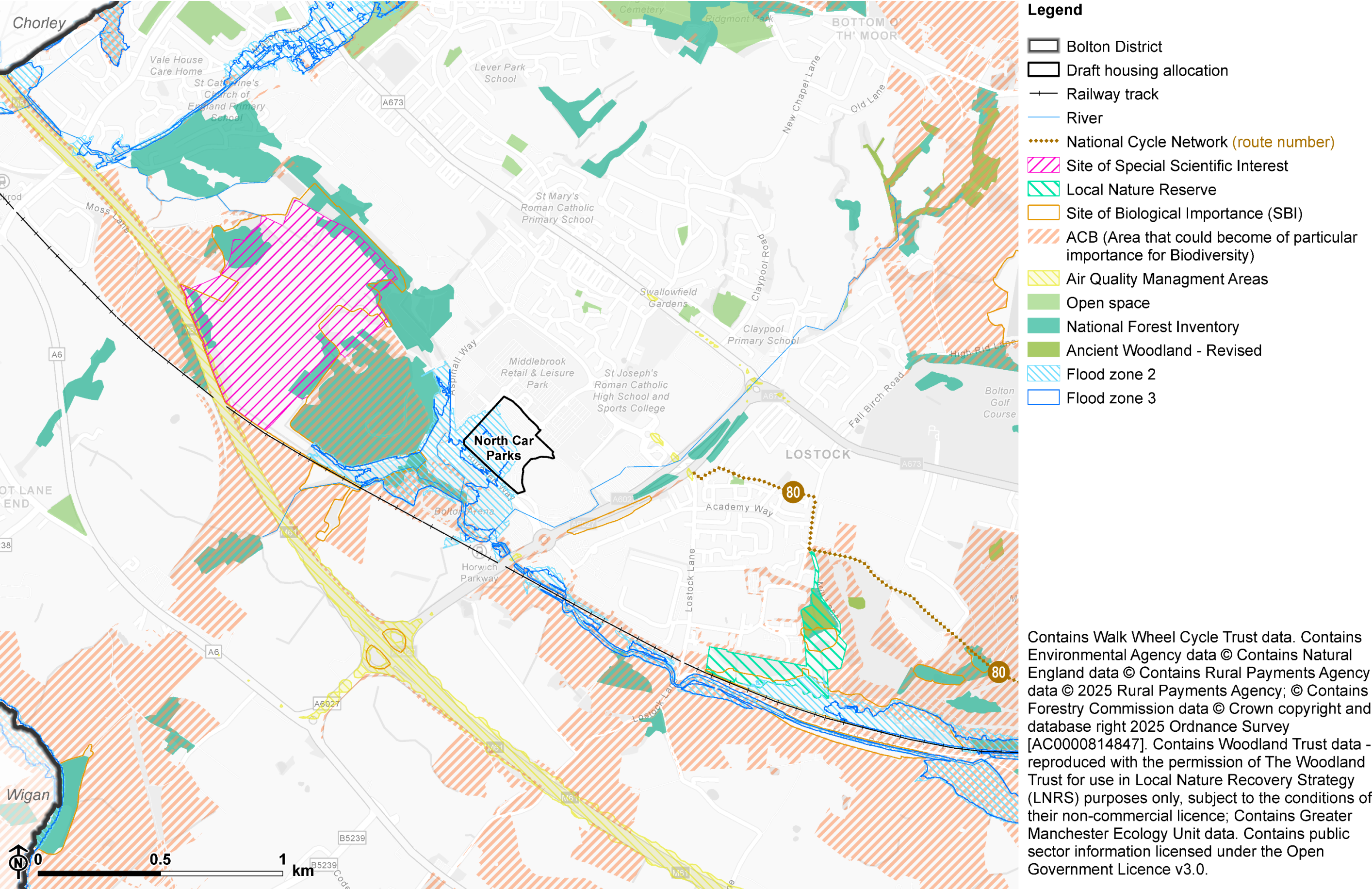
Summary of existing open space provision

6.22 Table 6.3 summarises the existing provision of open space, based on the relevant assessed sub-area as shown in **Appendix B**. The types of open spaces and established catchments for them are defined in **Chapter 4**.

Table 6.3: Open space within Middlebrook (within Horwich and Blackrod sub-area)

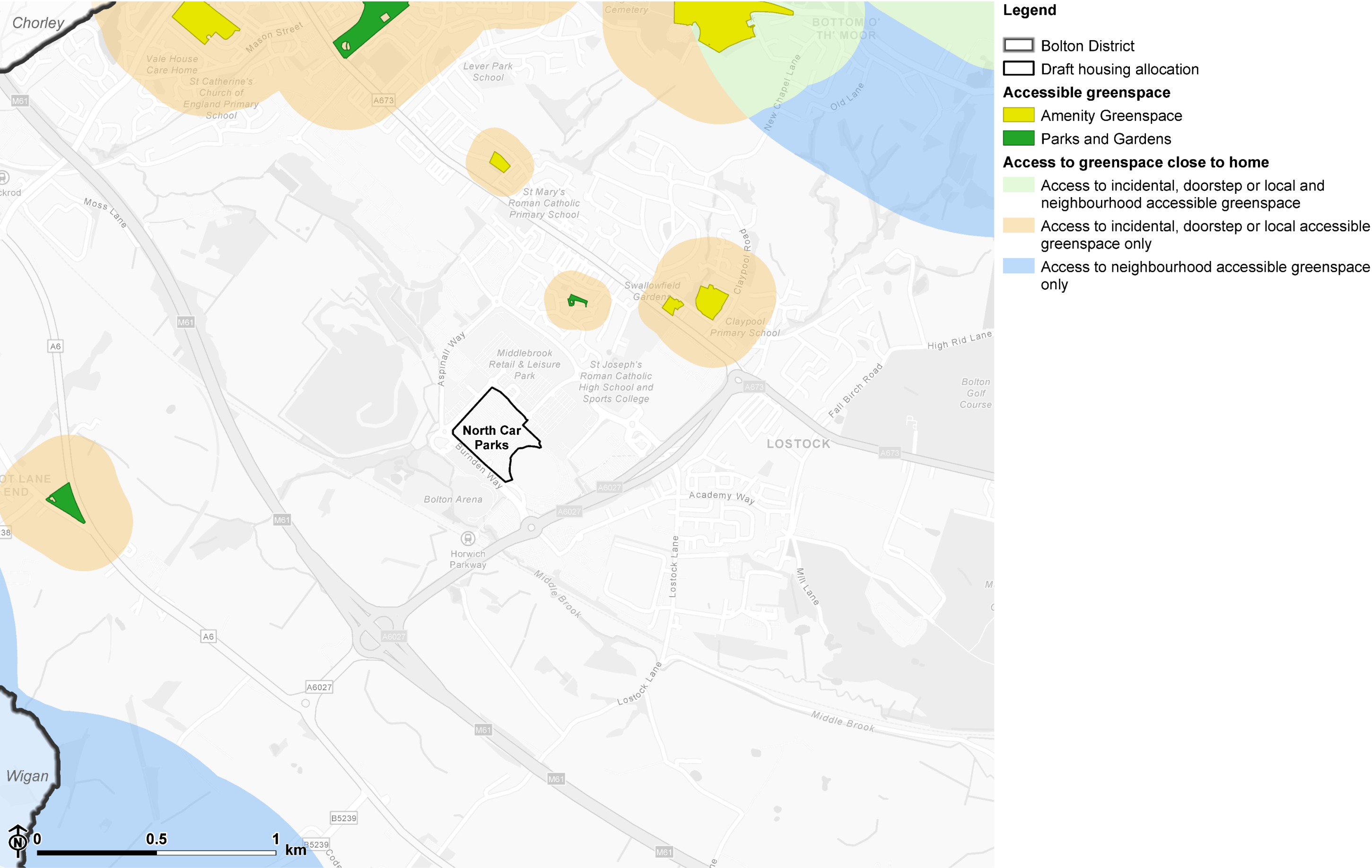
Open space type	Quantity and access
Total accessible greenspace (AGS)	Overall significantly higher provision of AGS compared to the rest of the Borough.
<i>“Close to home” AGS – incidental, doorstep or local, and neighbourhood</i>	Virtually no coverage within Middlebrook of incidental, doorstep, local or neighbourhood greenspaces - nearest coverage lies within the towns of Horwich and Blackrod.
<i>“Larger greenspace” AGS – wider neighbourhood and district</i>	Much of Horwich and Blackrod are covered by both types of larger greenspace, but Middlebrook lacks wider neighbourhood coverage.
Children’s play areas	Overall provision is slightly higher than Borough averages, primarily through Neighbourhood Equipped Areas of Play. The eastern part of Middlebrook has sufficient coverage, but the western part of the area falls outside any catchment.
Allotments	Overall provision is much higher than Borough averages and is concentrated to the north. However the southern area (where growth is proposed) is not sufficiently covered.

Figure 6.5: GI context in and around Middlebrook



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Figure 6.6: Access to greenspace "close to home" in and around Middlebrook



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Key challenges

- **Extensive areas of impermeable surface**, limiting opportunities for natural drainage, urban cooling and wider green infrastructure functions.
- **Very limited tree canopy cover**, resulting in low levels of shading, ecological value and environmental resilience.
- **Deficiencies across all sub-district open space typologies**, including a lack of “close to home” and “wider neighbourhood” accessible greenspace, as well as insufficient existing play provision and allotment space to support growth.
- **Significant fluvial flood risk** (Flood Zones 2 and 3), alongside areas of surface water flood risk across parts of the site.
- **Elevated heat risk across the area**, reflecting a lack of greening and high levels of hard surfacing.
- **High levels of road noise from the M61 corridor**, exceeding 55 dB (Lden) across much of the area and requiring mitigation through design, layout and GI provision.

Opportunities

- **Take a coordinated, strategic approach to flood risk**, addressing development within Flood Zones 2 and 3 and surface water issues through a site-wide, nature-based drainage strategy. Prioritise multifunctional SuDS that integrate with open space provision to deliver flood storage, biodiversity and recreational value.
- **Use flood risk as an opportunity to deliver innovative, multifunctional green spaces**, including areas that can safely accommodate water during high rainfall events while functioning as usable public space at other times (e.g. SuDS parks or floodable landscapes).
- **Align green infrastructure delivery with the Greater Manchester LNRS** and the **sensitivity of nearby Red Moss SSSI**, ensuring proposals enhance ecological connectivity while avoiding increased recreational pressure on designated sites.
- Respond to **planned improvements associated with the Horwich Loco Works development**, ensuring new proposals integrate with and strengthen emerging GI and open space networks across the wider area.

- **Prioritise urban greening and tree planting**, particularly along key pedestrian and cycle routes linking Middlebrook to surrounding destinations (including the retail centre, Public Rights of Way and future connections to Horwich Loco Works), to improve connectivity, comfort and environmental performance.
- **Deliver local-scale accessible greenspace within new development**, addressing existing deficiencies and meeting open space standards, with flexible approaches to providing children's play and food growing spaces in a constrained urban environment.
- **Create high quality, nature-rich walking and cycling links** (including high quality wayfinding) which link the site to National Cycle Network Route 80, providing an attractive green route from the site into Bolton town centre.

Growth Area Profile: Ditchers Farm

Overview of the GI context

6.23 Geography and land use: Ditchers Farm is located in the northern part of Westhoughton, just north-east of Wingates. The farm is largely currently open land, with a small area of woodland at its western boundary and an area of mature trees along Chorley Road. The site does not sit within the Green Belt and has been identified as a growth area for future housing provision.

6.24 Access to open space: Ditchers Farm is poorly served by accessible open space on the “close to home” and “wider neighbourhood” scales (as defined in **Chapter 4**). There are children’s play areas in the vicinity of the area, but they do not in themselves provide sufficient coverage for Ditchers Farm. Cutacre Country Park to the south-east and Haigh Country Park (Wigan) are the “district-scale” accessible greenspaces serving the area. The small-scale Glebe Street allotments site is accessible within 1.2 kilometres. *See **Table 6.4** below for further information on access to different types of open space.*

6.25 Wider GI assets: Overall, the immediate context for Ditchers Farm has relatively low existing GI value. As referenced above, there is a small area of woodland at the western extent of the site, adjacent to the residences along Wingates Lane. There is also mature tree cover to the rear of the residential and commercial uses along Chorley Road. There are two ponds at the farmstead which should be assessed for biodiversity value. Other than this, there is a minor tributary to the rear of the site roughly following the M61 and railway. The closest large-scale GI assets to the site are three Local Nature Reserves (LNRs): Hall Lee Brook 1.3km to the south, Borsdane Wood 2.5km to the west, and Lostock Hall 1km to the north.

6.26 Biodiversity networks: As shown on **Figure 3.3** in Chapter 3, there is a small area of land prioritised for enhancement as part of the local nature recovery network in the eastern part of the site.

6.27 Connectivity/green routes: Westhoughton train station is located within walking distance of the site, providing easy access to mass public transit. There is a relatively high density of existing Public Rights of Way (PROW) within the site - approximately 3,500m per square kilometre as mapped by Natural England. Many routes run along the rears of existing homes and parallel to the railway, and some cross the M61 via a subway. However, whilst a crossing exists, the M61 still forms a large barrier severing potential new communities from assets to the north.

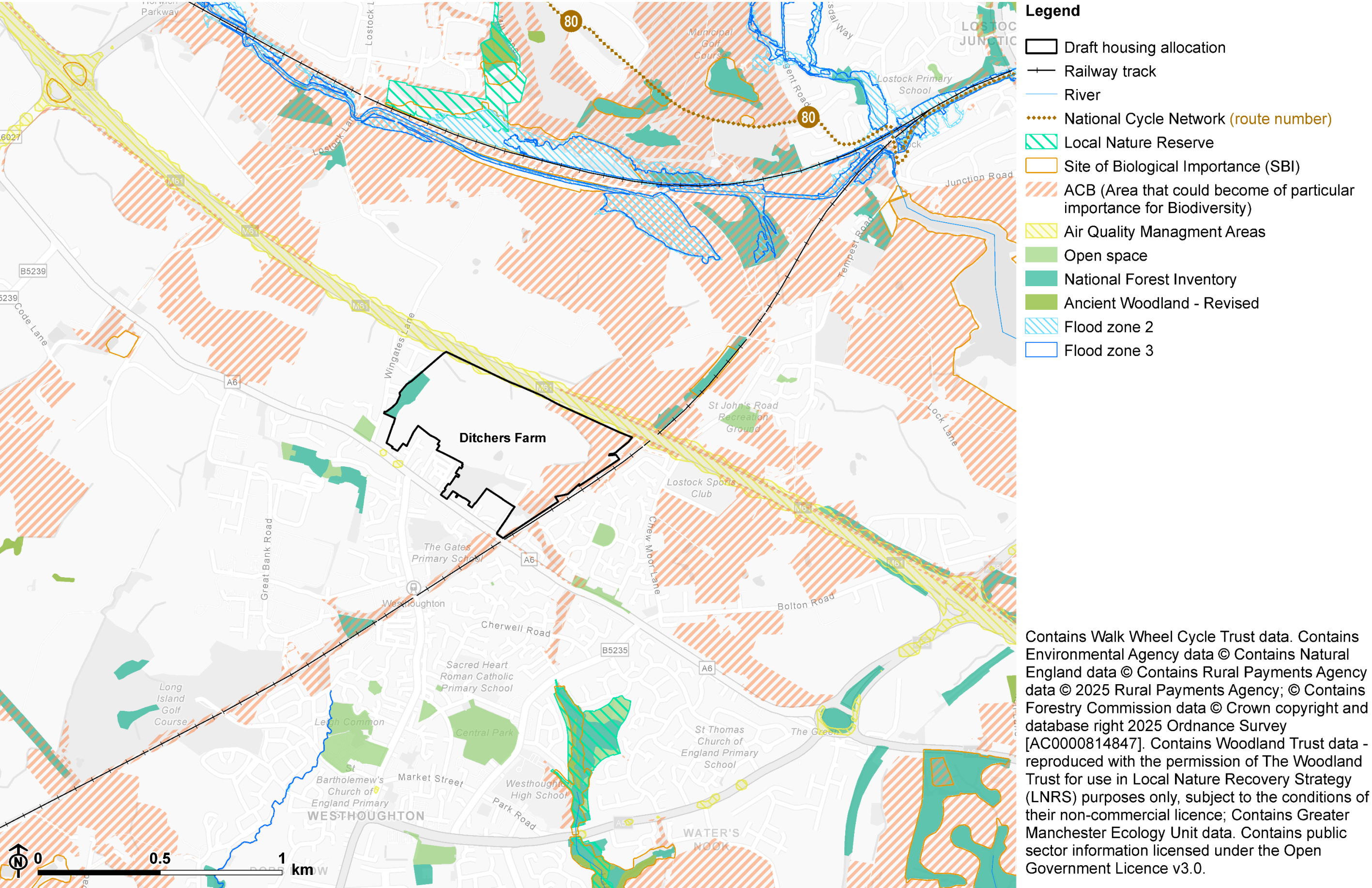
Summary of existing open space provision

6.28 Table 6.4 summarises the existing provision of open space, based on the relevant assessed sub-area as shown in **Appendix B**. The types of open spaces and established catchments for them are defined in **Chapter 4**.

Table 6.4: Open space at Ditchers Farm (within Westhoughton sub-area)

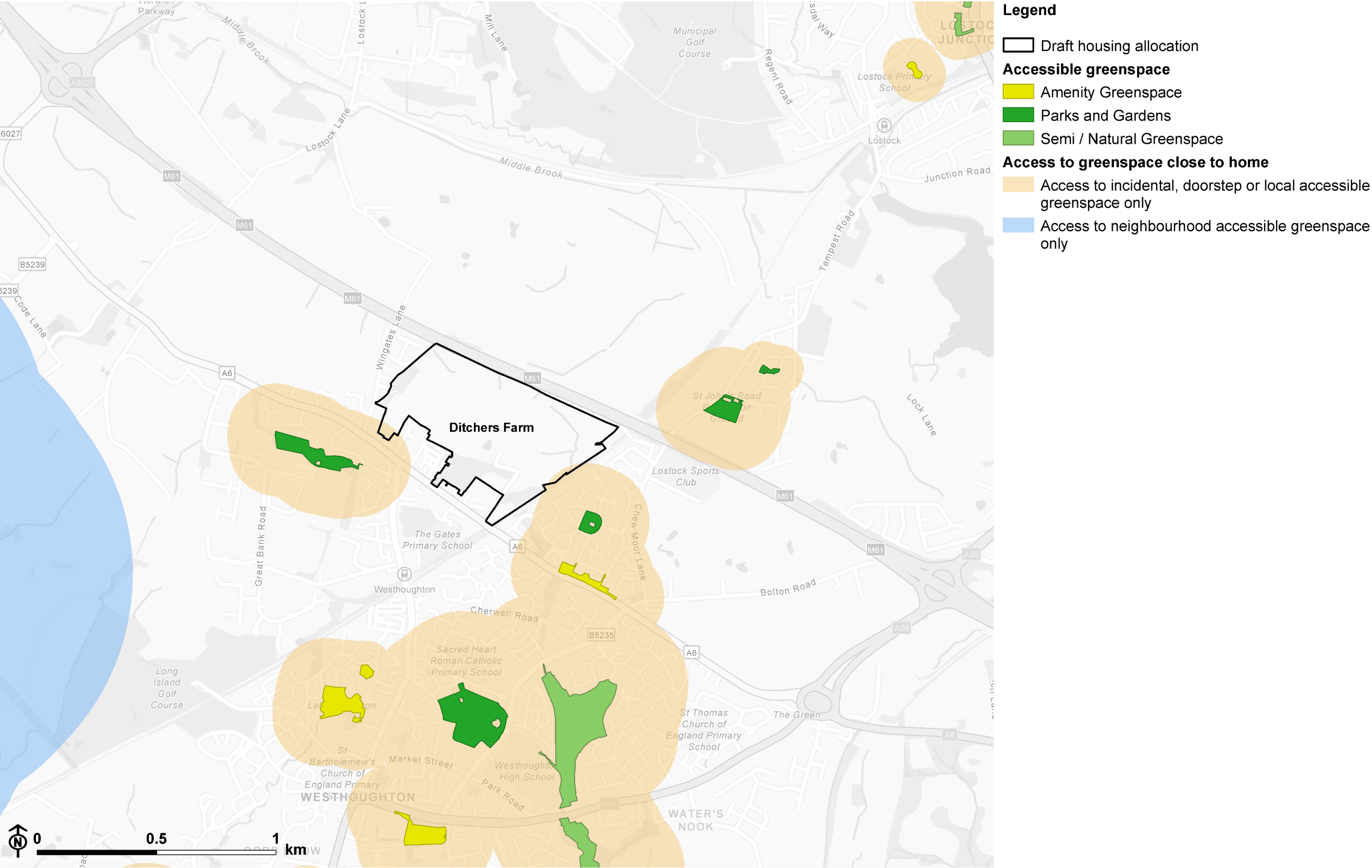
Open space type	Quantity and access
Total accessible greenspace (AGS)	Overall considerably lower provision of AGS compared to the rest of the Borough.
<i>“Close to home” AGS – incidental, doorstep or local, and neighbourhood</i>	Minimal coverage of all “close to home” greenspaces. Higher density residential areas in the sub-area are covered by existing incidental, local and doorstep greenspaces - however, there is very little neighbourhood-scale greenspace coverage.
<i>“Larger greenspace” AGS – wider neighbourhood and district</i>	The western part of the sub-area is covered by both types of larger greenspace. However the eastern portion (including Ditchers Farm) lacks wider neighbourhood coverage.
Children’s play areas	Overall provision is consistent with Borough averages. Provision is primarily Neighbourhood Equipped Areas of Play. There is currently partial coverage of the Ditchers Farm site.
Allotments	Overall provision is very low compared to Borough averages, as there is currently only a single allotment space. This allotment’s catchment does cover a portion of Ditchers Farm, but it will not be sufficient to meet existing or future demand.

Figure 6.7: GI context in and around Ditchers Farm



Created by LUC - 16544_003_GrowthAreas/001_r2_DRAFT_Map of GI context in and around 02/07/2026
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Figure 6.8: Access to greenspace "close to home" in and around Ditchers Farm



Created by LUC - 16544_001_Open_Space_Figures/006_r0_DRAFT_Access_Buffers_Housing_Allocation 02/07/2026
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Key challenges

- **Deficiencies in local-scale accessible greenspace and children's play provision**, limiting access to everyday recreational spaces for existing and future communities.
- **Limited provision of allotments / other food growing space** in the surrounding area.
- **Areas of surface water flood risk**, particularly along the railway corridor, constraining development and highlighting the need for integrated, nature-based drainage solutions.
- **Fragmented active travel routes along the A6 corridor**, with limited segregation, reducing connectivity and the role of GI in supporting safe walking and cycling.
- **High levels of road noise from the M61**, exceeding 65 dB (Lden) across much of the area and requiring mitigation through layout, design and GI interventions.

Opportunities

- **Provide accessible greenspace as part of new development** in line with Local Plan open space standards, including appropriate provision for children's play within walking distance of all dwellings.
- **Deliver food growing space in line with Local Plan standards**, where feasible on-site, or through well-justified off-site provision to meet identified local demand.
- **Retain and enhance existing woodland and mature tree cover**, using these features as part of the site's GI structure while minimising fragmentation and controlling access points (e.g. via Slack Lane).
- **Strengthen and extend the Public Right of Way network**, improving off-road walking and cycling connections within the site and to surrounding areas, including routes across the M61 and links to the wider GI network.
- **Integrate sustainable drainage (SuDS) as a core design feature** of the development, addressing surface water flood risk while creating multifunctional green spaces that provide biodiversity, amenity and recreational benefits.
- **Respond to site constraints through layout and design**, including setting back development from watercourses (e.g. through buffers) and locating built

form in lower-risk areas to support a coordinated, landscape-led approach to GI delivery.